**[El-Zohry ReviceMRCP 2013 Questions and Answers Only](https://drive.google.com/drive/u/0/folders/1AC1yc7EPfVcuQTUevzfhMIvnQwmzsduy)**

**[By Heinsberg](https://drive.google.com/drive/u/0/folders/1AC1yc7EPfVcuQTUevzfhMIvnQwmzsduy)**

**Table of content (Click to jump to chapter)**

[**Chapter 1 Basic Science 2**](#_Toc196509685)

[**Chapter 2 Cardiology 37**](#_Toc196509686)

[**Chapter 3 Dermatology 62**](#_Toc196509687)

[**Chapter 4 Endocrinology 77**](#_Toc196509688)

[**Chapter 5 Gastroenterology 97**](#_Toc196509689)

[**Chapter 6 Haematology 118**](#_Toc196509690)

[**Chapter 7 Nephrology 136**](#_Toc196509691)

[**Chapter 8 Neurology 150**](#_Toc196509692)

[**Chapter 9 Ophthalmology 173**](#_Toc196509693)

[**Chapter 10 Pharmacology 179**](#_Toc196509694)

[**Chapter 11 Psychiatry 189**](#_Toc196509695)

[**Chapter 12 Respiratory 202**](#_Toc196509696)

[**Chapter 13 Rheumatology 221**](#_Toc196509697)

[**Chapter 14 Statistics 251**](#_Toc196509698)

[**Chapter 15 Tropical medicine 258**](#_Toc196509699)

[**Chapter 16 2010 September 274**](#_Toc196509700)

[**Chapter 17 2011 January 294**](#_Toc196509701)

[**Chapter 18 2011 May 316**](#_Toc196509702)

[**Chapter 19 2011 September 338**](#_Toc196509703)

[**Chapter 20 2012 January 360**](#_Toc196509704)

[**Chapter 21 2012 May 383**](#_Toc196509705)

[**Chapter 22 2012 September 407**](#_Toc196509706)

[**Chapter 23 2013 January 431**](#_Toc196509707)

# Chapter 1 Basic Science

Q1. Which organ is anterior to the left kidney and is not separated by visceral peritoneum?

1- Left adrenal gland

2- Left psoas muscle

3- Large Intestin

4- Spleen

**5- Tail of the pancreas**

Q2. A patient with gallstones develops pain on the tip of his right shoulder. Which nerve is responsible for the pain?

1- C7 root

**2- Right phrenic nerve**

3- Right vagus

4- Axillary nerve

5- Median

Q3. Which area of the colon is most susceptible to mesenteric ischaemia?

1- Hepatic flexure

2- Caecum

3- Sigmoid colon

4- Rectum

**5- Splenic flexure**

Q4. Which of the following suggests damage to the oculomotor nerve (CNII I) ?

**1- Ptosis of the upper eyelid on the affected side**

2- Inability to laterally deviate the eye on that side

3- The eye is deviated downwards and medially at rest

4- A light shone into the affected eye does not produce constriction of the opposite pupil

5- Constricted pupil on the affected side

Q5. What would you expect on examination of a patient with paralysis of the deltoid?

1- Anaesthesia over the biceps brachii of the affected side

**2- Weakness of abduction when the shoulder is internally rotated.**

3- Concurrent weakness of the brachioradialis

4- Drooping of the shoulder on the affected side

5- The first 60 degrees of abduction is normal due to the normal function of the supraspinatus muscle

Q6. Which of the following may be an early clinical presentation of an Acoustic Neuroma?

1- Brisk Jaw Jerk

2- Bilateral Facial Weakness

3- Unilateral Conductive Hearing Loss

4- Unilateral wasting of Tongue and deviation to one side

**5- Reduced or Absent Corneal Reflex**

Q7. In regards to the coronary arteries, which of the following is correct:

1- The posterior interventricular artery is a branch of the circumflex artery

2- There is a lot of cross over circulation between the right and left coronary arteries

3- The circumflex artery is a branch of the right coronary artery

4- The anterior interventricular artery arises above the left posterior aortic cusp

**5- The anterior interventricular artery predominantly supplies the left ventricle**

Q8. What is the most common entrance point for contagions to cause septic cavernous sinus thrombosis?

1- Parotid region of the cheek

**2- Upper lip**

3- Temple

4- Gums (gum diseas e)

5- Ear

Q9. Regarding the internal capsule, which of the following is true:

1- The septum lucidum lies medial to the posterior limb

2- The anterior limb of the internal capsule lies between the head of the caudate nucleus and the head of the lentiform nucleus

3- The junction of the thalamus and the lenticular nucleus is termed the coronal junction

**4- The internal capsule arterial supply arises from lenticulostriate vessels which come off the middle and anterior cerebral arteries**

5- The lentiform nucleus itself comprises an outer globus pallidus and an inner amygdaloid body.

Q10. Regarding the spinal cord, which of the following is true:

**1- The spinal cord commonly terminates at the disc space between L1 and L2, although it can extend to L3 in some.**

2- The average spinal cord length is 14 inches (36 c m) 3- The dural sac in the adult extends through the whole length of the sacral canal

4- The spinal cord occupies the full length of the dural sac at birth.

5- The extradural space is empty

Q11. During surgical exploration of the floor of the mouth, the hypoglossal (XI I) nerve is damaged. What is the likely outcome?

1- Sensation for the posterior one third of the tongue is lost

**2- The intrinsic muscles of the tongues left side are paralysed**

3- The tongue deviates towards the right when it is protruded

4- The uvula deviates towards the left

5- The palatoglossus muscle is paralysed

Q12. Regarding the renal artery, which is correct?

1- The suprarenal artery arises from the renal artery

2- The aorta passes through the diaphragm at the level of the eleventh thoracic vertebra

**3- The right renal artery is longer than the left**

4- They arise from the abdominal artery above the superior mesenteric artery

5- The gonadal arteries arise above the origin of the renal artery

Q13. Bleeding from a posterior gastric ulcer arise from which vessel?

**1- Splenic artery**

2- Left gastro omental artery

3- Inferior pancreaticoduodenal artery

4- Right gastro omental artery

5- short gastric artery

Q14. Where would you find the azygous lobe on an antero posterior chest X ray ?

1- Left upper zone

2- Right lower zone

**3- Right upper zone**

4- Left middle zone

5- Left lower zone

Q15. A young man develops weakness of his right hand and describes an incident in which he grabbed onto a tree branch to brake a fall when hiking. He has normal range of movement at the shoulder, elbow and wrist but cannot use precision or power grip. What structure is likely to have been damaged?

1- The axillary nerve

2- The C7 nerve root

3- The radial nerve

**4- The T1 nerve root**

5- The ulnar nerve

Q16. Which muscle is associated with ulnar neuropathy?

1- Lateral lumbricals

**2- Adductor pollicis**

3- opponens pollicis

4- Flexor pollicis longus

5- Flexor pollicis brevis

Q17. A patient complains that her left foot drags and she is often catching it on steps or kerbs. She has a high stepping gair and loss of dorsiflexion on examination. There is reduced sensation over the foot and shin. What is the likely cause?

1- Tibial nerve injury

2- Femoral nerve injury

**3- Common peroneal nerve injury**

4- Stroke

5- L5 nerve lesion

Q18. An elderly lady presents with problems performing simple tasks such as buttoning blouses or holding the phone. She has wasting of the small muscles of the hand and partial clawing of the little and ring fingers. Which nerve is likely to be damaged?

1- C6

**2- Ulnar nerve**

3- Radial nerve

4- Median nerve

5- Axillary nerve

Q19. If the inferior (recurren t) laryngeal nerve is accidentally divided, what would be the result?

1- Nothing the superior branch can compensate.

2- All the laryngeal muscles are paralysed on the affected side

3- During laryngoscopy, the affected cord is seen to lie close to the midline

4- Only the cricothyroid muscle is paralysed

**5- The larynx would be paralysed below the vocal cord on the divided side**

Q20. An 80 year old man with a history of stroke presents with a lower homonymous quadrantanopia affecting the temporal side of the right visual field and the nasal side of the left visual field. Where is the lesion?

1- Optic chiasm

2- Right parietal lobe

3- Optic nerve

4- Left Occipital lobe

**5- Left parietal lobe**

Q21. Which of the following would indicate an ulnar nerve lesion?

1- Froments test shows a strong pinch grip

2- Anaesthesia of the 3 and a half digits on the ulnar side of the hand

**3- Inability to abduct the little finger**

4- The middle and index fingers are in a claw

5- Wasting of the thenar eminence

Q22. Which of the following does not lead to an increase in PSA level?

1- Ejaculation

**2- UTI**

3- Benign prostatic hyperplasia

4- Cycling

5- PR examination

Q23. Which of the following would you expect to see on an ECG of a patient with hypercalcaemia?

1- Prolonged QT interval

**2- Shortened QT interval**

3- Tall tented T waves

4- Left axis deviation

5- T wave inversion

Q24. A 62 year old gentleman with type 2 diabetes mellitus presents unwell with fever, shortness of breath and a cough productive of green sputum. He is found to have a glucose of 21 mmol/L and a sodium of 129 mmol/L. He is only on metformin normally. His urine osmolality is 350 mmol/Kg and urinary sodium is 30 mmol/L. He appears dehydrated. What is the most likely cause of his hyponatraemia?

**1- Osmotic diuresis**

2- SIADH

3- Congestive cardiac failure

4- Furosemide

5- Spurious result

Q25. Which of the following is most likely to lead to a metabolic alkalosis?

1- Hypothyroidism

**2- Ectopic ACTH syndrome**

3- Cushings Disease

4- Addisons disease

5- Hyperthyroidism

Q26. A 65 year old patient with chronic renal failure is discovered to have slightly low calcium levels. His phosphate is high and PTH is elevated. What is the most likely cause?

1- Reduced vitamin D absorption

2- Primary hyperparathyroidism

3- Hypoparathyroidism

4- Pseudohypoparathyroidism

**5- Secondary Hyperparathyroidism**

Q27. Which of the following increases during the acute phase response?

1- Insulin growth factor 1

2- Transferrin

3- Albumin

**4- Ferritin**

5- Caeruloplasmin

Q28. Which of the following would you not expect to be raised in an acute phase response?

1- Fibrinogen

**2- Transferrin**

3- Ferritin

4- Caeruloplasmin

5- CRP

Q29. Which of the following is not an action of insulin?

1- Lipogenesis

2- Glycogen synthesis

**3- Glycogenolysis**

4- Gluconeogenesis inhibition

5- Glucose uptake in skeletal muscles

Q30. Which of the following is not an action of glucagon?

1- Gluconeogenesis

**2- Amino acid uptake**

3- Glycogenolysis

4- Release of free fatty acids

5- Lipolysis

Q31. Plasminogen activator inhibitor 1 is associated with which of the following?

1- Weight loss

2- Type 1 diabetes mellitus

3- Hypercholesterolaemia

**4- Insulin resistance**

5- Cancer

Q32. Which substance plays an important role in the relaxation of smooth muscle?

1- Aldosterone

2- Noradrenaline

3- Adrenaline

**4- Nitric oxide**

5- Nitrous oxide

Q33. Haemophilia B is caused by?

1- Factor VIII deficiency

2- Vitamin K deficiency

3- Factor XIII deficiency

**4- Factor IX Deficiency**

5- Protein S deficiency

Q34. A patient with known alcohol excess presents with confusion, ataxia and nystagmus. Which vitamin deficiency is likely to have leads to these symptoms?

1- Vitamin B12

**2- Vitamin B1**

3- Folate

4- Vitamin C

5- Vitamin E

Q35. What is the function of protein C?

1- Inactivation of factor Xa

2- Inactivation of factor Va and VIIa

**3- Inactivation of factor Va and VIIIa**

4- Modification of factors II, VII, IX and X

5- Increased activation of factor Va and VIIIa

Q36. Which of the following is natriuretic?

1- ADH

2- Renin

3- Angiotensin

**4- ANP**

5- Aldosterone

Q37. What is the target of rheumatoid factor?

**1- Constant region of IgG**

2- Constant region of IgM

3- Chondrocytes

4- Variable region of immunoglobulins

5- Collagen

Q38. A patient presents recurrently with swelling in the face, lips and tongue and abdominal pain and diarrhoea. Given the likely diagnosis which deficiency is the cause?

1- C3 esterase inhibitor

2- Complement

3- TNF alpha

**4- C1 esterase inhibitor**

5- Histamine

Q39. Which antibody is found in greatest proportion in mucosal tissues?

1- IgM

2- IgE

3- IgD

4- IgG

**5- IgA**

Q40. When would parenteral feeding be utilised over enteral feeding?

1- Prolonged time of nutritional support required

2- Dysphagia

3- High risk of aspiration

**4- Dysfunctional small bowel**

5- High risk of refeeding syndrome

Q41. In obesity, which of the following is the most likely to lead to increased mortality?

1- Depression

2- Metabolic syndrome

3- Cancer

**4- Cardiovascular disease**

5- Diabetes

Q42. Which of the following if taken at toxic levels would lead to a respiratory alkalosis?

1- Monoamine oxidase inhibitors

2- Paracetamol

3- Tricyclic antidepressants

4- Benzodiazipines

**5- Salicylate**

Q43. Which of the following is not a common feature of acute salicylate poisoning?

1- Hyperventilation

**2- Hepatic dysfunction**

3- Nausea and vomiting

4- Deafness

5- Tinnitus

Q44. In a patient with symptomatic acute iron poisoning who presents 4 hours post ingestion, how should they be managed?

1- Activated Charcoal

**2- Desferrioxamine**

3- Gastric Lavage

4- Whole bowel irrigation

5- Monitor

Q45. Which of the following is highly suggestive of ethylene glycol poisoning?

1- Hyperkalaemia

**2- Hypocalcaemia**

3- Hypercalcaemia

4- Hyponatraemia

5- Hypokalaemia

Q46. Which of the following is not a treatment for carcinoid syndrome?

1- Interferon alpha

**2- Cabergoline**

3- Radiotherapy

4- Chemotherapy

5- Octreotide

Q47. A patient is brought to A and E drowsy and unwell. He is known to have COPD however appears septic in addition to this. Blood gases revealed elevated hydrogen ions and elevated PCO2 and a low O2, bicarbonate and pH. How do you interpret these results?

1- Metabolic acidosis

2- Respiratory alkalosis with metabolic compensation

**3- Mixed metabolic and respiratory acidosis**

4- Respiratory acidosis

5- Respiratory acidosis with metabolic compensation

Q48. A 45 year old gentleman presents to his GP. He has noticed on numerous occasions after prolonged sun exposure, blisters forming on his hands, forearms and face. On examination there is evidence of erosions and bullae on these areas of skin and hypertrichosis in the temporal and malar areas. He does drink alcohol excessively. What is the most likely diagnosis?

1- Pemphigus vulgaris

**2- Porphyria Cutanea Tarda**

3- Acute intermittent porphyria

4- Epidermolysis Bullosa

5- Bullous pemphigoid

Q49. Which of the following drugs is not known to be associated with hyperkalaemia?

**1- Prednisolone**

2- Heparin

3- Ramipril

4- Diclofenac

5- Spironolactone

Q50. A patient with hypertension is found to be hypokalaemic. What is the most likely cause?

**1- Bendroflumethiazide**

2- Ramipril

3- Diarrhoea

4- Amlodipine

5- Atenolol

Q51. How should SIADH be managed initially? Demeclocycline

1- Demeclocycline

2- Desmopressin

3- Normal saline

4- Double strength saline

**5- Fluid restriction**

Q52. Which of the following suggests a diagnosis of SIADH?

1- Hypernatraemia, low plasma osmolality and increased urine osmolality

2- Hyponatraemia and increased plasma osmolality and low urine osmolality

3- Hyponatraemia and increased plasma osmolality

**4- Hyponatraemia, low plasma osmolality and increased urine osmolality**

5- Hyponatraemia and low plasma osmolality

Q53. A patient with type 1 diabetes mellitus presents with fatigue, weight loss, dizziness and nausea. She has had numerous hypoglycaemic events. On examination she appears tanned and there is evidence of a postural drop in blood pressure. What is the most likely diagnosis?

1- Overzealous treatment of Diabetes

2- Hypopituitarism

**3- Addisons disease**

4- Poorly controlled diabetes

5- Cushings syndrome

Q54. Impaired glucose tolerance requires which of the following for diagnosis?

**1- Fasting glucose of less than 7.0 mmol/L and after glucose tolerance test a blood glucose of between 7.8 mmol/L and 11.0 mmol/L**

2- Fasting glucose of less than 7.0 mmol/L or after glucose tolerance test a blood glucose of between 7.8 mmol/L and 11.0 mmol/L

3- Fasting glucose of less than 6.0 mmol/L and after glucose tolerance test a blood glucose of between 7.0 mmol/L and 10.0 mmol/L

4- Fasting glucose of greater than 7mmol/L

5- Random glucose of greater than 11.1 mmol/L

Q55. Which of the following treatment is the initial treatment of choice for an obese patient with type 2 diabetes mellitus?

**1- Metformin**

2- Pioglitazone

3- Insulin

4- Gliclazide

5- Ezetimibe

Q56. Which of the following autoantibodies is found in type 1 diabetes mellitus?

1- Anti

**2- Anti GAD**

3- Anti alpha cells

4- Antiendomysial antibodies

5- Rheumatoid factor

Q57. Which of the following is most indicative of type 1 diabetes mellitus rather than type 2 diabetes mellitus?

1- Peripheral neuropathy

**2- Weight loss**

3- Onset in early 20s

4- Retinopathy

5- Family history

Q58. If thyroid function tests are performed when a patient is pregnant in her first trimester, what would you expect to see?

1- Decrease T3 and T4 and increased TSH

**2- Increase T3 and T4 and reduced TSH**

3- Increased T3 and T4 and Increased TSH

4- No change

5- Decreased T3 and T4 and reduced TSH

Q59. Which of the following pairs shows the correct enzyme as the rate limiting step for the reaction?

1- Glycogen synthase : glycogenolysis

**2- Carnitine acyl transferase : fatty acid oxidation**

3- Glycogen phosphorylase : glycogenesis

4- Phosphofructokinase 1 : cholesterol synthesis

5- HMG CoA reductase : Glycolysis

Q60. Which of the following does not lead to an increase in gamma glutamyl transferase?

1- Alcohol

2- Cardiac failure

3- Phenytoin

4- Hepatitis

**5- Clofibrate**

Q61. Which of the following is not a cause of renal tubular acidosis type 4?

1- Diabetes mellitus

**2- Hyperparathyroidism**

3- Addisons disease

4- SLE

5- Amyloidosis

Q62. PiZZ genotype is at increased risk of which condition?

1- Asthma

2- Breast Cancer

**3- Alpha 1 antitrypsin**

4- Pancreatic Cancer

5- Colorectal Cancer

Q63. In hypothyroidism, which biochemical test is most useful in the diagnosis and monitoring of treatment?

**1- TSH**

2- Thyroid auto antibodies

3- Thyroglobulin

4- FT3

5- FT4

Q64. Which biochemical test is most helpful in differentiating chronic from acute renal failure?

1- Magnesium

2- Sodium

3- Potassium

**4- Calcium**

5- Bicarbonate

Q65. What are Bence Jones proteins?

1- Monoclonal heavy chains found in urine

2- Monoclonal heavy chains found in serum

3- Paraprotein band

**4- Monoclonal light chains found in urine**

5- Monoclonal light chains found in serum

Q66. Which of the following is consistent with the diagnosis of Gilberts syndrome?

1- Increased unconjugated bilirubin, increased conjugated bilirubin, raised urinary urobilinogen

**2- Increased unconjugated bilirubin, reduced conjugated bilirubin, low urinary urobilinogen**

3- Increased conjugated bilirubin, reduced unconjugated bilirubin, low urinary urobilinogen

4- Increased conjugated bilirubin, reduced unconjugated bilirubin, raised urinary urobilinogen

5- Increased unconjugated bilirubin, reduced conjugated bilirubin, raised urinary urobilinogen

Q67. Faecal calprotectin is regularly raised in which of the following?

**1- Inflammatory bowel disease**

2- Coeliac disease

3- Irritable bowel disease

4- Acute pancreatitis

5- Chronic pancreatitis

Q68. Which of the following leads to a megaloblastic, macrocytic anaemia?

1- Alcohol

2- Liver disease

3- Hypothyroidism

4- Haemolytic anaemia

**5- Folate deficiency**

Q69. In a TSH secreting tumour what would you expect to find on thyroid function testing?

1- High TSH, normal free T4

**2- Normal TSH, High free T4**

3- Low TSH, high free T4

4- High TSH, reduced T4

5- Normal TSH, normal free T4

Q70. Which of the following is not useful in the diagnosis of Wilsons disease?

**1- MRI**

2- Kayser Fleischer rings

3- Ceruloplasmin level

4- Urinary excretion of copper

5- Copper level

Q71. Which of the following would you not expect to see on an ECG of a patient with hyperkalaemia?

**1- Shortened QT interval**

2- Tall tented T waves

3- Small P waves

4- ST depression

5- Widened QRS complexes

Q72. Which pair is correct in regards to the type of porphyria and the correct deficiency?

1- Variegate Porphyria : ferrochelatase

2- Porphyria cutanea tarda : coproporphyrinogen

3- Erythropoietic protoporphyria : protoporphyrinogen

4- Hereditary coproporphyria : Uroporphyrinogen decarboxylase

**5- Acute intermittent porphyria : Porphobilinogen**

Q73. Which GLUT transporter is upregulated by insulin?

1- GLUT 2

**2- GLUT 4**

3- GLUT 1

4- GLUT 3

5- GLUT 5

Q74. At what time of the day should the cortisol level be at its lowest?

**1- 9 am**

2- 6 pm

3- 3 am

4- Midday

5- Midnight

Q75. In G6P deficiency what is the underlying cause of haemolysis?

1- Increased susceptibility to complement destruction

2- Inhibition of NADPH

3- Abnormal haemoglobin structure 4-

5- Increased NADPH

Q76. A 58 year old gentleman presents with a history of weight loss. He has lost 2 stones in weight over the last 6 months. He is complaining of a chronic cough. He was previously a heavy smoker but has not smoked for over 3 years. He has no other symptoms. He suffers from hypertension and is on bendroflumethiazide for which he has been on for years. He is found to have a sodium of 127 mmol/l with normal urea, creatinine and potassium. His sodium level had been normal 6 months ago. Which of the following is the most likely cause of his hyponatraemia?

1- Renal Failure

2- Addison's Disease

3- Hypothyroidism

**4- SIADH**

5- Bendroflumethiazide

Q77. A 19 year old female presents to her GP with non specific symptoms of muscle weakness. You note she appears slim. She denies any other specific symptoms and states she is otherwise well. Bloods reveal hypokalaemia and a bicarbonate of 16. She also has an elevated amylase. Which of the following is the most likely diagnosis?

1- Chronic Pancreatitis

**2- Bulimia Nervosa**

3- Gitelmann's syndrome

4- Bartter's syndrome

5- Furosemide abuse

Q78. A patient presents with acute renal failure secondary to rhabdomyolysis. Which other biochemical abnormalities may be seen?

1- Hypokalaemia and metabolic acidosis

2- Hypokalaemia and metabolic alkalosis

3- Hypernatraemia

4- Hyperkalaemia and metabolic alkalosis

**5- Hyperkalaemia and metabolic acidosis**

Q79. Which of the following is a method for identifying the 3D structure of proteins?

1- Polymerase Chain Reaction

2- Western Blotting

3- In Situ Hybridisation

**4- X-ray Crystallography**

5- Southern Blotting

Q80. Which is true of Crigler Najjar syndrome?

**1- Autosomal recessive disease with severe unconjugated hyperbilirubinaemia**

2- X linked disease with severe unconjugated hyperbilirubinaemia

3- Autosomal recessive disease with mild unconjugated hyperbilirubinaemia

4- Autosomal recessive disease with mild conjugated hyperbilirubinaemia

5- Autosomal recessive disease with severe conjugated hyperbilirubinaemia

Q81. Haemophilia A is caused by?

1- Protein S deficiency

2- Factor XIII deficiency

**3- Factor VIII deficiency**

4- Factor IX Deficiency

5- Vitamin K deficiency

Q82. A patient presents with erythema nodosum and is found to have bilateral hilar lymphadenopathy. Which biochemical abnormality is associated with this?

1- Hypokalaemia

2- Hypernatraemia

3- Hyponatraemia

**4- Hypercalcaemia**

5- Hyperkalaemia

Q83. Which GLUT transporter plays a role in glucose sensing?

1- GLUT 3

2- GLUT 4

**3- GLUT 2**

4- GLUT 1

5- GLUT 5

Q84. A patient who has recently been commenced on ramipril for hypertension presents for his routine bloods. He is found to have a potassium of 5.7 mmol/L, his urea, creatinine and sodium are within the normal range and have not changed since his last set of bloods. His ECG is normal. He is otherwise well. How should this patient be treated?

1- Insulin Dextrose

2- Calcium resonium

**3- Stop Ramipril and recheck Us and Es in one week**

4- Calcium Gluconate

5- Salbutamol nebulisers

Q85. The presence of which feature suggests proliferative diabetic retinopathy?

**1- Neovascularisation**

2- Microaneurysms

3- Cotton wool spots

4- Hard exudates and blot haemorrhages

5- Soft exudates

Q86. How is osteoporosis diagnosed?

**1- DEXA scan**

2- Clinical diagnosis

3- Bone profile

4- 2 fractures within 6 months

5- X ray of hip and spine

Q87. Which of the following should be checked if there is hypokalaemia refractory to treatment?

1- Calcium

2- Albumin

**3- Magnesium**

4- Sodium

5- Zinc

Q88. A elderly lady is found to have a raised serum alkaline phosphatase and normal calcium and phosphate levels. Which of the following is the likely diagnosis?

1- Osteomalacia

**2- Pagets disease of bone**

3- Osteitis fibrosa cystica

4- Primary hyperparathyroidism

5- Osteoporosis

Q89. An otherwise healthy female is found to have a serum calcium of 2.89 mmol/l. She takes high doses of vitamins and minerals. What is the likely cause of the raised calcium?

**1- Primary hyperparathyroidism**

2- Excessive calcium intake

3- Malignancy

4- Excessive vitamin D intake

5- Normal variant

Q90. Which is true of low density lipoproteins?

**1- Apolipoprotein B100 acts as a ligand for LDL receptors**

2- They contain a lower proportion of cholesterol compared to VLDL

3- Insulin promotes LDL formation

4- They transport cholesterol from peripheral cells to the liver

5- Hepatic LDL receptor levels decrease with statins

Q91. What is the best treatment for familial dysbetalipoproteinaemia?

1- Bile acid sequestrant

2- Ezetimibe

**3- Fibrate**

4- Nicotinic acid

5- Statin

Q92. A young man is discovered to have a raised serum triglyceride during a routine examination. His serum cholesterol concentration is 5.2 mmol/l and gamma glutamyltransferase is raised. History reveals a history of depression and he is on treatment with fluoxetine. His BMI is within the healthy range. What is the diagnosis?

1- Normal variant

2- Non alcoholic steatohepatitis

3- Fluoxetine enzyme induction

**4- Hepatic steatosis secondary to alcohol**

5- Familial hyperlipidaemia

Q93. Which of the following is found with familial hypercholesterolaemia?

1- Palmar xanthomata

**2- Xanthelasma palpebrarum**

3- Arcus senilis

4- Elbow Xanthomata

5- Digital xanthomata

Q94. A 9 year old is brought to her GP with early development of body hair. Her blood pressure is normal and tests reveal normal prolactin levels, a raised 17 alpha hydroxyprogesterone level and high testosterone levels. What is the diagnosis?

1- 5 Alpha reductase deficiency

2- Mild 11 beta hydroxylase deficiency

**3- Mild 21 hydroxylase deficiency**

4- Severe 21 hydroxylase deficiency

5- Severe 11 beta hydroxylase deficiency

Q95. Which is an acute porphyria?

1- Hereditary coproporphyria

**2- None of the others**

3- Congenital erythropoietic porphyria

4- Erythropoietic protoporphyria

5- Porphyria cutanea tarda

Q96. A dexamethasone test shows that a patients cortisol levels fail to change with a low dose, but fall with a high dose of dexamethasone. ACTH levels are high after a low dose but fall with a high dose of dexamethasone although they are still above the normal range. What is the diagnosis?

1- Ectopic ACTH producing tumour

2- Hypothyroidism

3- Pseudo Cushings syndrome

**4- Cushings disease**

5- Adrenal tumour

Q97. A patient presents with enlargement of his hands, feet and tongue. What investigation would you order?

1- Melatonin levels

2- Hourly growth hormone levels

**3- Glucose tolerance test, GH and IGF1 levels**

4- ACTH levels

5- Fasting glucose test, GH and IGF1 levels

Q98. A patient is found to have hypercalcaemia. Which of the following could be excluded from a differential diagnosis?

1- Sarcoidosis

2- Breast cancer

3- Hyperparathyroidism

**4- Cushings syndrome**

5- Multiple myeloma

Q99. Which of the following molecules in pulmonary surfactant is mainly responsible for reducing surface tension?

1- DMPC

2- Phosphatidylcholine

3- SP-A

4- Cholesterol

**5- DPPC**

Q100. Which of the following is one of the main roles of p53?

1- Inititiating protein synthesis

2- Initiating cell cycle

3- Mismatch Repair

**4- Apoptosis**

5- Angiogenesis

Q101. Which of the following does cortisol bind to predominantly?

1- Cholesterol

2- Unbound

3- Albumin

4- Sex hormone binding globulin

**5- Corticosteroid binding globulin**

Q102. Half of aldosterone is bound to which of the following?

1- Adipose tissue

2- Albumin

**3- Corticosteroid binding globulin**

4- Sex hormone binding globulin

5- Chylomicron

Q103. What is the risk following a needle stick injury of a HIV positive patient of contracting HIV?

1- 1 in 3

2- 1 in 50

3- 1 in 3000

**4- 1 in 300**

5- 1 in 30

Q104. Which of the following is a tumour marker for breast cancer?

1- CA 125

2- CEA

3- CA 19-9

**4- CA 15-3**

5- HCG

Q105. Mutation of which of the following genes has been linked to a hereditary condition which results in increased susceptibility to cancer with many different types of cancer occurring in a family at a young age and more than one cancer occurring in one person?

**1- p53**

2- Mismatch repair genes

3- BRCA1

4- BRCA2

5- Nil

Q106. Which enzyme involved in DNA replication, leads to the creation of a DNA strand via extension of a primer, by the addition of bases according to a template, and also proof reads?

1- DNA topisomerase

2- Helicase

**3- DNA polymerase**

4- DNA primase

5- DNA Ligase

Q107. Where in a cell is actin found?

**1- Cytoskeleton**

2- Cell membrane

3- Nucleus

4- Ribosome

5- Endoplasmic reticulum

Q108. Which cells produce TNF alpha?

1- Fibroblasts

2- CD8 cells

3- CD4 cells

**4- Macrophages**

5- Erythrocytes

Q109. What is the action of reverse transcriptase?

1- It removes introns

**2- It transcribes DNA from RNA**

3- It activates ribosomes to produce proteins from DNA

4- It breaks nucleotide bonds

5- It transcribes RNA from DNA

Q110. Where is the insulin receptor found?

1- Nucleus

2- Cytoplasm

3- Golgi apparatus

4- Mitochondria

**5- Cell membrane**

Q111. Where is the Golgi apparatus situated in a cell?

1- Cell membrane

2- Exocytotic vesicle

3- Endosome

**4- Endoplasmic reticulum**

5- Nucleus

Q112. In which condition are signet ring cells commonly seen histologically?

1- Oesophageal adenocarcinoma

2- Hepatocellular carcinoma

3- Oesophageal squamous cell carcinoma

4- Gastric leiomyoma

**5- Gastric adenocarcinoma**

Q113. Where does RNA splicing occur?

**1- Nucleus**

2- Golgi apparatus

3- Cell wall

4- Cytoplasm

5- Ribosome

Q114. Which protein is abnormal in Marfans syndrome?

1- Collagen IV

2- Collagen I

3- Collagen III

4- Dystrophin

**5- Fibrillin**

Q115. Which enzyme is abnormal in Tay Sachs disease?

**1- Hexosaminidase A**

2- Ceramidase

3- Pentosaminidase A

4- Sphingosin kinase

5- Iduronidase

Q116. Which of the following correctly describes the pathophysiology of Tay Sachs disease?

**1- Insufficient lysosomal breakdown of ganglioside GM2**

2- Increased lysosomal breakdown of ganglioside GM2

3- Apoptosis of glial cells due to lyosomal self activation

4- Insufficient lysosomal breakdown of glycoprotein RT3

5- Abnormal formation of ganglioside GM2

Q117. In which biochemical reaction is bioflavin an essential substrate?

1- Gluconeogenesis

2- The cori cycle aka lactate cycle

**3- The electron transport chain**

4- Glycogenolysis

5- Formation of guanine

Q118. What is the most common presenting symptom of Haemophilus ducreyi infection?

**1- Genital ulcer**

2- Lymphadenopathy

3- Haematuria

4- Diarrhoea

5- Dyspnoea and productive cough

Q119. A patient presents with a fever and sore stiff knees after a recent holiday in which he toured America camping. Examination reveals multiple rashes which reminds him of a bite he had on his leg whilst still in America. What is the causative agent?

**1- Borrelia burgdorferi**

2- Borrelia parkeri

3- Borrelia duttoni

4- Borrelia recurrentis

5- Borrelia hermsii

Q120. A man has had diarrhoea for 3 weeks following cholecystectomy. What is the likely cause?

1- Lactose intolerance

2- Streptococcus viridans

3- Staphylococcus aureus

4- Staphylococcus epidermidis

**5- Bile acid malabsorption**

Q121. How does Staphylococcus aureus food poisoning commonly present?

1- Bloody diarrhoea

2- Watery diarrhoea with mucous lasting 48 hours

3- Severe vomiting, cramping and diarrhoea 12 hours after food ingestion

**4- Severe vomiting, cramping and diarrhoea 3 hours after food ingestion**

5- Severe vomiting, cramping and diarrhoea 24 hours after food ingestion

Q122. What is the best treatment for diarrhoea induced by cryptosporidium parvum infection of the gastrointestinal tract in an otherwise healthy patient?

1- Nitrofuran

2- Melarsoprol

3- Lodoquinol

**4- No treatment**

5- Tinidazole

Q123. An Indian man requires a blood transfusion. There is no reaction by his cells to anti A or anti B and his serum causes agglutination of A and B. He is given 0 blood and a transfusion reaction occurs. No errors were made when transfusing the blood. Which of the following is the most likely cause?

**1- Bombay phenotype**

2- HIV positive reaction

3- Lymphoma

4- Allergy to additive in blood

5- Kashmir phenotype

Q124. A blood sample shows that the cells are not agglutinated by anti A or anti B and the serum causes agglutination of cells from blood group A and B. What is the ABO antigen phenotype?

1- AO

2- AB

3- AA

4- BO

**5- OO**

Q125. What is the mode of action of interferon beta 1a?

1- It prevents the activation of Natural Killer (N K) cells

2- It promotes apoptosis

3- It prevents prostaglandin synthesis

**4- It increases MHC class 1 presentation**

5- It activates quiescent neurones

Q126. Which tumour suppressor protein does papillomavirus interfere with?

1- ST7

**2- p53**

3- CD95

4- APC

5- ST14

Q127. What is the pathophysiological defect in pemphigus vulgaris?

1- Antibodies raised against type IV collagen

**2- Antibodies raised against desmogleins**

3- Antibodies raised against selectins

4- Antibodies raised against claudin

5- Antibodies raised against integrins

Q128. Which enzyme would you inhibit to slow the development of firm nodules over the back of a patients fingers, hands, forearms and tragus.

1- Adenosine deaminase

**2- Xanthine oxidase**

3- Nitrogenase

4- Ceruloplasmin

5- Uricase

Q129. Which pathway predominantly produces the energy for marathon running?

1- Lactate cycle aka Cori cycle

2- Glycogenesis

3- Glycogenolysis

**4- Beta oxidation**

5- Gluconeogenesis

Q130. Which vessels are most sensitive to nitrates?

**1- Veins**

2- Coronary arteries

3- Pulmonary arteries

4- Capillaries

5- Lymphatic vessels

Q131. Which cell type are foam cells derived from?

**1- Macrophages**

2- Eosinophils

3- Fibroblasts

4- Neutrophils

5- Endothelial cells

Q132. Which cells cause liver fibrosis when activated?

**1- Hepatic stellate cells**

2- Endothelial cells

3- Kupffer cells

4- Hepatocytes

5- Cholangiocytes

Q133. Which enzyme breaks base pairs in a double stranded DNA molecule?

1- Topoisomerase

2- DNA polymerase

3- Ligase

4- Nuclease

**5- Helicase**

Q134. Which enzyme forms phosphodiester bonds between complimentary bases of DNA?

1- DNA topoisomerase

**2- DNA ligase**

3- DNA polymerase

4- DNA gyrase

5- DNA helicase

Q135. Which disease is paired with its defective chromosome?

1- Edwards syndrome and chromosome 19

2- Gilberts syndrome and chromosome 11

**3- Cystic fibrosis and chromosome 7**

4- Chronic myelogenous leukemia (CM L) and chromosomes 9 and 21

5- Haemophilia A and chromosome 3

Q136. Regarding C peptide, which of the following is true?

1- High C peptide levels in a hypoglycaemic patient suggests factitious

2- C peptide is raised in inflammatory disease

3- C peptide is absent in type 2 diabetes

**4- C peptide cleavage occurs in secretory vesicles of the Golgi apparatus**

5- C peptide levels are low with insulinoma

Q137. Granuloma is a feature of which disease?

1- Polycystic ovarian syndrome

2- Diverticulitis

**3- Syphilis**

4- Typhoid

5- Pancreatitis

Q138. Imatinib is effective against which diseases?

1- Chronic Lymphoid Leukemia (CL L) and gastrointestinal stromal tumours

2- Breast cancer and gastrointestinal stromal tumours

**3- Chronic Myloid Leukemia (CM L) and gastrointestinal stromal tumours**

4- Chronic Myloid Leukemia (CM L) and pancreatic carcinoma

5- Chronic Myloid Leukemia (CM L) and Myeloma

Q139. Which of the following is true regarding wound healing?

1- The maturation phase can last up to 3 months

2- Type II collagen is produced initially but later replaced with type I

3- Macrophages become the dominant cell type within 12 hours of injury

4- Haemostasis is initiated by local neutrophils

**5- Vasoconstriction occurs when a vessel is damaged and lasts 10 minutes**

Q140. You are asked to see a patient who had a chest drain removed 4 days ago. There appears to be some infection.

1- Maturation and remodelling can continue for up to a year

**2- Demolition is the first phase**

3- Epithelial cell proliferation is the hallmark of the demolition phase

4- Collagen deposition is the key process during demolition

5- Acute inflammation usually lasts for 6

Q141. Which is true regarding the production of the gastric fluids?

1- Stomach acid is maintained between pH 4 and 5

2- Trypsinogen is produced by gastric chief cells

3- D cells release somatostatin in the presence of amino acids

4- No mucous is produced in the stomach

**5- The proton pump is located at the apical membrane of gastric parietal cells**

Q142. Which is true regarding a neurone at rest?

1- The intracellular charge is 70V

2- Potassium is high extracellularly

**3- The intracellular compartment is negatively charged**

4- The intracellular compartment is positively charged

5- Sodium is high intracellularly

Q143. Which is true regarding the early asthma response?

**1- Allergens bind to IgE produced by B cells and form complexes which degranulate mast cells**

2- Phagocytes attack damaged cells

3- It resolves spontaneously after 10 to 20 minutes

4- Allergens bind to IgG produced by B cells and form complexes which degranulate mast cells

5- Eosinophilia occurs within 5 minutes

Q144. Which of the following tests uses a labeled complementary DNA or RNA strand to localize a specific DNA or RNA sequence?

1- Polymerase chain reaction

2- Western Blot

3- Southern Blot

**4- In Situ Hybridisation**

5- Northern Blot

Q145. Botulinum toxin has which of the following features?

1- It may be used in the treatment of myasthenia gravis

2- It is produced by a Gram-positive, aerobic bacillus

3- Its main activity is at the presynaptic membrane

**4- It may be used in the treatment of blepharospasm**

5- The bacillus has 15 serotypes

Q146. Polymerase chain reaction (PC R) is a tool utilised to replicate specific sections of nucleic acid, which of the statements below relate to reverse transcriptase PCR (RT-PC R) ?

1- The enzyme used during the reaction (Taq polymeras e) is thermolabile

2- Oligonucleotides primers used are specific for the sense strand of the DNA

**3- It can be used to quantify mRNA**

4- The DNA produced during the reaction contains introns

5- The DNA produced during the reaction is known as genomic DNA

Q147. Which of the following statements is true about the matrix metalloproteinases, which play a major role in pathological processes, including rheumatoid arthritis, periodontitis, vascular disease as well as tumour invasion and metastasis?

1- All contain an iron atom

2- All are controlled by specific tissue stimulators of the metalloproteinases

3- All are secreted as a proenzyme, which in each case is activated by cleavage of defined glycoprotein sequences

**4- All share sequence homologies**

5- Each is involved in the synthesis of at least one component of the extracellular matrix, basement membrane proteins and bioactive mediators

Q148. Which of the following statements is false when considering the cell cycle of a eukaryotic somatic cell?

1- M represents the mitotic phase of the cycle

2- Normal cells with damage to their DNA structure

3- S phase is the synthesis phase of the cycle

**4- The DNA content of the cell in the G2 phase is four times that of cells in G0 phase**

5- p53 is a tumour supressor protein which can prevent the cell cycle at the G1 phase

Q149. Which of the following is a trinucleotide repeat disorder?

1- Sydenhams chorea

2- Beckers muscular dystrophy

3- Wallenbergs syndrome

**4- Kennedys syndrome**

5- Amyotrophic lateral sclerosis

Q150. From which amino acid is endogenous nitric oxide derived?

1- L lysine

**2- L arginine**

3- L tryptophan

4- L citrulline

5- L alanine

Q151. Which of the following best describes ICAM 1?

1- It is a leukotriene

2- It has vasodilatory effects

**3- It is an adhesion molecule**

4- It is an intracellular protein

5- It is a heat shock protein

Q152. During which phase of the cell cycle is DNA replicated?

**1- The S phase**

2- The G0 phase

3- The G1 phase

4- The M phase

5- The G2 phase

Q153. Which of the following is thought to lead to Alzheimer's disease?

1- AA amyloid forming neurofibrillary tangles

2- AL amyloid forming neurofibrillary tangles

**3- Tau protein forming neurofibrillary tangles**

4- Huntingtin deposition

5- Alpha synuclein in substantia nigra

Q154. Which of the following is reverse transcriptase responsible for?

1- Involved in mismatch repair

2- Transcribes single stranded RNA to double stranded DNA

3- Transcribes single stranded DNA to single stranded RNA

**4- Transcribes single stranded RNA to single stranded DNA**

5- Breakdown of double helix

Q155. Which of the following statements is true concerning kinins?

**1- Their activation leads to release of chemotactic cytokines**

2- They decrease the permeability of blood vessels

3- They promote vasoconstriction

4- They perforate invading bacteria

5- They are lipids

Q156. How do glucocorticoids mediate their effect on the body?

1- Binds to extracellular receptor and it is engulfed and travels to nucleus

2- Hormone receptor complex and via phosphorylation bind to hormone response element on DNA

**3- Hormone receptor complex and via zinc fingers bind to hormone response element on DNA**

4- Binds to cell surface receptors and forms heterodimers

5- Binds to cell surface receptor and activates G proteins resulting in change in gene expression

Q157. Which of the following is an important mechanism to prevent cortisol inappropriately activating aldosterone receptors in the kidney?

1- Downregulation of aldosterone receptors

2- Cortisol renally excreted

3- 11bhydroxydehydrogenase type 1 enzyme activity converting cortisol to cortisone

**4- 11bhydroxydehydrogenase type 2 enzyme activity converting cortisol to cortisone**

5- Lack of affinity of cortisol for aldosterone receptors

Q158. Which of the following contains circular double stranded DNA?

1- Nucleus

2- Smooth Endoplasmic reticulum

3- Golgi apparatus

4- Rough Endoplasmic reticulum

**5- Mitochondria**

Q159. Which of the following utilises gel electrophoresis to identify a specific protein?

1- Southern blotting

2- Northern blotting

**3- Western blotting**

4- Polymerase chain reaction

5- In situ hybridisation

Q160. Which of the following is thought to be the most important activator of glucokinase transcription within the liver?

1- Insulin inhibiting sterol regulatory element binding protein 1c

**2- Insulin activating sterol regulatory element binding protein 1c**

3- Glucose activating sterol regulatory element binding protein 1c

4- Glucagon activating sterol regulatory element binding protein 1c

5- Glucokinase regulatory protein

Q161. Concerning the respiratory cell biology of an asthmatic individual, which of the following is true?

1- Monocytes are granular and static

2- Basophils are granular and their mode of action is phagocytosis

**3- T cells are mobile and contribution to asthma is via cytokine production**

4- Eosinophils are agranular and mobile

5- B cells are mobile and their mode of action is phagocytosis

Q162. Which tumour marker and disease pair is correct?

**1- Ovarian cancer and CA 125**

2- Pancreatic cancer and CarcinoEmbryonic Antigen

3- Sarcoidosis and Vimentin

4- Lung cancer and AFP

5- Pancreatic cancer and CA 20 2

Q163. A 24 year old female is referred to the genetic clinic. Her maternal aunt died from breast cancer at the age of 28 and another aunt had ovarian cancer at the age of 34. Her own mother had suffered from breast cancer at a young age. Her maternal uncle had melanoma at age 34. Which gene is responsible?

1- p53

2- ATM

**3- BRCA2**

4- BRCA1

5- Nil sporadic

Q164. In hereditary haemochromatosis, the underlying mutation results in which of the following?

1- Insertion

2- Deletion

3- Frameshift

4- Translocation

**5- Substitution**

Q165. What is the most frequent cause of mortality in Turners syndrome?

**1- Aortic rupture**

2- Aortic stenosis

3- Suicide

4- Renal failure

5- Heart failure

Q166. A man with Fragile X syndrome is having a child with his partner who is normal and has no family history of Fragile X syndrome. What is the change of a daughter carrying the fragile X gene?

1- 5%

**2- 100%**

3- 0%

4- 25%

5- 50%

Q167. What is the chance of a male child having haemophilia A if her father had the condition and her partner is normal?

1- 0%

2- 5%

3- 25%

4- 100%

**5- 50%**

Q168. What is the chance that the son of a man with haemophilia A will have haemophilia A? The mother is known to NOT be carrier

**1- 0%**

2- 5%

3- 100%

4- 25%

5- 50%

Q169. A patient with Alport syndrome has a daughter with extremely mild symptoms compared to himself. What is the mode of inheritance?

**1- X linked dominant**

2- Autosomal dominant

3- X linked recessive

4- Autosomal recessive

5- Mitochondrial

Q170. What is the mode of inheritance for hereditary hemorrhagic telangiectasia?

1- Mitochondrial

**2- Autosomal dominant**

3- Autosomal recessive

4- X linked dominant

5- X linked recessive

Q171. What genetic mutation is most commonly behind Prader Willi syndrome?

1- Non disjunction

2- Translocation

3- Trisomy

4- Mosaicism

**5- Imprinting**

Q172. A man presents with choreiform movements, personality change and memory loss. His father and grandfather both had similar problems. What is the likely diagnosis?

1- Alzheimers disease

**2- Huntingtons disease**

3- Lesch Nyhand syndrome

4- Alcohol dependancy syndrome

5- Lewy Body dementia

Q173. What is the mode of inheritance for Dubin Johnson syndrome?

1- Autosomal dominant

2- Mitochondrial

**3- Autosomal recessive**

4- X linked recessive

5- Chance mutation

Q174. Which of the following genes is abnormal in Marfans syndrome?

1- Collagen Type III

2- Fibroblast growth Factor 1

3- Collagen Type II

**4- Fibrillin 1**

5- Collagen Type I

Q175. Which of the following disorders may have an autosomal recessive mode of inheritance?

1- Hereditary spherocytosis

**2- Phenylketouria**

3- Neurofibromatosis type 1

4- Marfan syndrome

5- Huntingtons disease

Q176. What genetic mechanism is missing in patients with xeroderma pigmentosum have?

**1- Nucleotide excision repair**

2- Base excision repair

3- Transcription coupled repair

4- Mismatch repair

5- Homology directed repair

Q177. How is Klinefelters syndrome diagnosed?

1- PCR analysis

**2- Karyotype**

3- Mitochondrial analysis

4- Thyroid testing

5- CT head

Q178. Which genetic condition is most common in Caucasians?

1- Sickle cell anaemia

2- Haemophilia A

3- Hereditory spherocytosis

**4- Cystic fibrosis**

5- Alpha 1 antitrypsin deficiency

Q179. Which thyroid cancer is associated with MEN syndrome?

**1- Medullary**

2- Follicular

3- Anaplastic

4- Lymphoma

5- Papillary

Q180. A woman presents with weakness of her legs and sore feet. History reveals that her father had similar problems. On examination you note reduced power and weakness of the leg muscles, absent knee and ankle reflexes, a high arch and reduced sensation over the legs. Which test should be carried out next?

1- CT legs

2- Lumbar puncture

**3- Nerve conduction studies**

4- MRI legs

5- Biopsy

Q181. Which of the following provides a definitive diagnosis of myotonic dystrophy?

1- Nerve conduction studies

2- MRI

3- EEG

**4- Genetic testing**

5- Muscle biopsy

Q182. A 32 year old man is found to have a cerebellar haemangioblastoma. His history reveals that his father had a kidney cancer and his brother is undergoing surgery to remove a pheochromocytoma. What is the diagnosis?

1- Polycystic kidney disease

2- Multiple endocrine neoplasia type 2A

3- Tuberous sclerosis

4- Multiple endocrine neoplasia type 1

**5- Von Hippel Lindau disease**

Q183. A young lady presents with bone pain and loin to groin pain. Her history reveals galactorrhoea and dizzy spells. What is the diagnosis?

1- Pagets disease

2- Prolactinoma

**3- Multiple endocrine neoplasia type 1**

4- Parathyroid adenoma

5- Von Hippel Lindau syndrome

Q184. What is the mode of inheritance for Kearns Sayre syndrome?

1- X linked dominant

2- autosomal dominant

**3- mitochondrial**

4- autosomal recessive

5- X linked recessive

Q185. What is the chance of a healthy adult being a carrier of cystic fibrosis if his brother is affected by the condition?

1- 100% chance

**2- 2 in 3**

3- 1 in 2

4- 1 in 3

5- 1 in 4

Q186. A patient with colon cancer is found to have cafe au lait spots around his nose, within the oral cavity and on his bottom lip. History reveals GI problems as a child. What is the diagnosis?

1- Laugier Hunziker syndrome

2- MEN syndrome 2b

**3- Peutz Jeghers syndrome**

4- Neurofibromatosis type 2

5- Neurofibromatosis type 1

Q187. A couple, both with Von Willebrands disease, plan to have children. Which of the following is true?

1- Half the children will be carriers

**2- Three quarters of the children will have the disease**

3- All male children will be affected

4- All children will have the disease

5- None of the children will be effected

Q188. Which of the following is most commonly mutated in individuals with Maturity Onset Diabetes of the Young?

1- Bile dependent helicase

2- Insulin like growth factor 1

3- Glucagon

**4- Hepatic nuclear factor 1a**

5- insulin

Q189. What is the genetic malformation responsible for Huntingtons disease?

1- Point mutation

2- Non dysjunction

**3- Trinucleotide repeat expansion**

4- Deletion

5- Insertion

Q190. What is the chance of a child being a carrier of cystic fibrosis if both his mother and father are carriers?

1- 0%

2- 100%

**3- 50%**

4- 25%

5- 66%

Q191. What is the inheritance pattern of cystic fibrosis?

1- Mitochondrial disorder

**2- Autosomal recessive**

3- Autosomal dominant

4- X linked recessive

5- X linked dominant

Q192. A patient has short forth and fifth metacarpals, short stature, obesity, learning difficulty and a history of muscle spasms, tetany and seizures. What is the likely gene abnormality?

1- Abnormal serine kinase on the PTH receptor

**2- Abnormal G protein on the PTH receptor**

3- Abnormal Calcitonin

4- Abnormal tyrosine kinase on the PTH receptor

5- Abnormal PTH

Q193. Which of the following is due to mitochondrial DNA mutation?

**1- Lebers hereditary optic neuropathy**

2- Down syndrome

3- Polycystic kidney disease

4- Webers syndrome

5- Nail Patella Syndrome

Q194. Which of the following is due to a single point mutation of the beta globin subunit of haemoglobin?

1- Thrombotic thrombocytopenic purpura

2- Beta thalassaemia

3- Hereditary spherocytosis

**4- Sickle cell disease**

5- Hereditary stomatocytosis

Q195. Which of the following conditions gives the highest chance of an effected male fathering an effected son?

1- Haemophilia B

2- Wilsons disease

3- Haemophilia A

4- Sickle cell disease

**5- Huntingtons disease**

Q196. A 31 year old female is undergoing surgery for a phaeochromocytoma. Her history reveals a family history of kidney disease and brain tumours. What is the underlying genetic condition?

1- Multiple endocrine neoplasia type 2A

2- Multiple endocrine neoplasia type 1

3- Neurofibromatosis type 1

**4- Von Hippel Lindau disease**

5- Neurofibromatosis type 2

Q197. Which of the following genetic malfunctions would result in severe learning difficulties and congenital heart disease?

1- Balanced translocation

2- Reciprocal translation

3- Paracentric inversion

4- Unipaternal disomy

**5- Unbalanced translocation**

Q198. A man of Ashkenazi Jewish background presents with fatigue and hip pain. Examination reveals hepatosplenomegaly. What is the diagnosis?

1- Niemann Pick disease

**2- Gauchers disease**

3- Tay Sachs disease

4- Usher syndrome

5- Familial dysautonomia

Q199. A 31 year old female presents with constipation and sore knees. History reveals that the patient has been more tired than usual and that 9 years she had surgical resection of a pituitary prolactinoma. Her mother and brother have had kidney stones and her grandfather had a tumour removed from his pancreas. What is the underlying condition?

**1- Multiple endocrine neoplasia type 1**

2- Multiple endocrine neoplasia type 2

3- Familial hypocalciuric hypercalcaemia

4- Von Hippel Lindaue disease

5- Prolactinoma

Q200. A young patient is referred after having an eye test for deteriorating vision. Examination reveals elevated blood pressure, 7 large cafe au lait spots, axillary freckles and scoliosis. What is the diagnosis?

**1- Neurofibromatosis type 1**

2- Phaeochromocytoma

3- Neurofibromatosis type 2

4- Tuberous sclerosis

5- Multiple Endocrine Neoplasia type 1

Q201. A patient presents with colour blindness, hypogonadism, anosmia and a normal stature. What is the diagnosis?

1- Cystic fibrosis

2- Fragile X syndrome

3- Klinefelters syndrome

4- Down syndrome

**5- Kallman syndrome**

Q202. Which is not a complication of Down syndrome?

1- Alzheimers disease

**2- Hyperthyroidism**

3- Strabismus

4- Acute lymphoblastic leukemia

5- Congenital heart disease

Q203. A man with AV block is noted to have eyelid ptosis, muscle wasting and a history of cataracts. What is the diagnosis?

1- Beckers muscular dystrophy

2- Duchennes muscular dystrophy

**3- Myotonic dystrophy**

4- Myaesthenia gravis

5- Refsum disease

Q204. Which of the following would cause hypothyroidism and amenorrhoea?

**1- Turners syndrome**

2- Refsum disease

3- XXX syndrome

4- Myaesthenia Gravis

5- Ehlers Danlos syndrome

Q205. What does high penetrance mean in genetics?

1- The phenotype occurs at an early age

**2- Individuals with a mutated phenotype are highly likely to display the associated phenotype**

3- It is a gene common in a population

4- Individuals with a mutated phenotype are highly unlikely to display the associated phenotype

5- The phenotype is expressed at a progressively younger age over successive generations

Q206. A patient presents with an excruciating headache and nausea. She is being treated for hypertension and she has a family history of kidney problems. What is the likely cause?

1- Renal oncocytoma

2- Hypercholesterolaemia

3- Von Hippel Lindau disease

4- Turners syndrome

**5- Austosomal dominant polycystic kidney disease**

Q207. A child is brought to her GP by her mother after breaking bones from trivial falls. Her teeth are discoloured, her sclera have a blue grey colour and she has a history of mild hearing loss. Her older brother has a similar history but with more profound hearing loss and her father has chronic back pain and a history of fractures. What is the diagnosis?

1- Multiple Endocrine Neoplasm 1

2- Idiopathic juvenile osteoporosis

3- Tublero sclerosis

4- Child abuse

**5- Osteogenesis imperfecta**

Q208. Which of the following is the most specific diagnostic sign for Marfan syndrome if all were present?

1- Scoliosis

2- Pectus excavatum

3- Astigmatism

**4- Early diastolic murmur**

5- Arachnodactyly

Q209. A lady had a son and brother that have Duchennes muscular dystrophy. Which of the following is she at higher risk of?

1- Learning difficulty

**2- Cardiomyopathy**

3- Osteoarthritis

4- Cerebral infarction

5- Epilepsy

Q210. A 17 year old presents with primary amenorrhoea, short stature and wide spaced nipples. What is the diagnosis?

1- Kallmann syndrome

2- Down syndrome

3- Marfan syndrome

4- Iron deficiency anaemia

**5- Turners syndrome**

Q211. Which of the following is due to genetic imprinting?

1- Niemann Pick disease

**2- Prader Willi syndrome**

3- Fragile X

4- Kallmann syndrome

5- Huntingtons disease

Q212. What is the chance of a healthy adult being a carrier of cystic fibrosis if his brother is affected by the condition?

1- 1 in 4

2- 100%

3- 1 in 3

**4- 2 in 3**

5- 1 in 2

Q213. How is hereditary haemorrhagic telangiectasia inherited?

**1- Autosomal Dominant**

2- Autosomal Recessive

3- Mitochondrial

4- X linked recessive

5- X linked dominant

Q214. If only males are affected by a condition. What is the inheritance pattern?

1- Autosomal dominant

2- X linked dominant

3- Autosomal recessive

**4- X linked recessive**

5- Mitochondrial

Q215. Which phase of mitosis does chromatin condense into a chromosome?

1- Telophase

**2- Prophase**

3- Anaphase

4- Metaphase

5- Interphase

Q216. Which of the following genes is abnormal in Marfans syndrome?

1- Collagen type III

2- Collagen type II

**3- Fibrillin 1**

4- Collagen type I

5- Fibroblast growth factor 1

Q217. A specific HLA type is associated with ankylosing spondylitis. Which chromosome is this located on?

1- Chromosome 12

2- Chromosome 9

3- Chromosome 16

4- Chromosome 23

**5- Chromosome 6**

Q218. A 21 year old man presents to his GP after dislocating his shoulder several times. On examination his joints are hypermobile, his skin elasticity is normal, there is no bruising and laboratory investigations are normal. He is tall but his arm span is normal. What is the likely diagnosis?

1- Ehlers Danlos syndrome

2- Marfan syndrome

3- Loeys Dietz syndrome

**4- Benign hypermobile syndrome**

5- MASS phenotype

Q219. An asymptomatic female is found to be a carrier of haemophilia A. What is the chance of her having a son with Haemophilia if the father is not affected?

**1- 50%**

2- 100%

3- Less than 1%

4- 25%

5- No chance

Q220. An 18 year old has bilateral ptosis, restricted eye movements, opthalmoplegia, retinitis pigmentosa and AV block. What is the diagnosis?

**1- Kearns Sayre syndrome**

2- Chronic progressive external ophthalmoplegia

3- Myotonic dystrophy

4- Myaesthenia Gravis

5- Pearson syndrome

Q221. In which of the following is positive RET oncogene associated with the sporadic form?

1- Medullary Thyroid Carcinoma

2- Follicular Thyroid Carcinoma

**3- Papillary Thyroid Carcinoma**

4- MEN 1

5- Anaplastic Thyroid Carcinoma

Q222. What is the the most common cause of male hypogonadism and infertility?

1- Tubular sclerosis

2- Cystic fibrosis

**3- Klinefelters syndrome**

4- Down syndrome

5- Fragile X syndrome

Q223. A young man speaks to his GP as he is concerned about having a heart attack. His father had a heart attack aged 41, his grandfather died of a heart attack aged 58 and 2 of his uncles have had heart attacks in their 40s. What is the most likely genetic background?

1- Familial hypertriglyceridemia

2- Familial apoprotein CII deficiency

3- Hyperhomocysteinaemia

**4- Familial hypercholesterolaemia**

5- Familial lipoprotein lipase deficiency

Q224. A patient has a brother with sickle cell disease and she is planning a family. She does not have the condition. Assuming the population carrier frequency is 1 in 100, what is the chance of her child having the disease?

1- 1 in 150

**2- 1 in 600**

3- 1 in 25

4- 1 in 1200

5- 1 in 10

Q225. How is Peutz Jeghers syndrome inherited?

1- Autosomal recessive

2- Mitochondrial

3- X linked recessive

4- X linked dominant

**5- Autosomal dominant**

Q226. A blood film shows Heinz bodies. What is the likely underlying condition?

1- Hereditary spherocytosis

2- Sickle Cell Anaemia

3- Autoimmune haemolytic anaemia

4- Haemophilia A

**5- Glucose 6 phosphate dehydrogenase deficiency**

Q227. A 31 year old female presents with bloody diarrohea and is referred for colonoscopy which reveals 4 adenomatous polyps in the ascending colon. She has a positive history of colon cancer, including 3 first degree relatives. What is the diagnosis?

1- Cowden syndrome

2- Familial adenomatous polyposis

3- KRAS mutation

4- Gardner syndrome

**5- Hereditary non polyposis colon cancer**

Q228. A 22 year old male presents with easy bruising. You note that he is very tall and his sclerae have a blue tinge. He has marked hypermobility of his joints and has moderate elasticity of his skin. Which of the following is the most likely cause?

1- Marfan's Syndrome

**2- Hypermobile form of Ehlers Danlos**

3- Hypermobility Syndrome

4- Osteogenesis Imperfecta

5- Classical form of Ehlers Danlos

Q229. A young patient has been brought to see his GP as his chest sticks out more compared to his siblings. Examination reveals long thin extremities and arachnodactyly. Nothing else is of note. What is the diagnosis?

1- Ehlers Danlos syndrome

2- Acromegaly

**3- Marfans syndrome**

4- Klinefelter syndrome

5- Fragile X syndrome

Q230. Which of the following is an example of polygenic inheritance?

1- Haemophilia A

**2- Ankylosing Spondylitis**

3- Huntington's Disease

4- Down's Syndrome

5- Cystic Fibrosis

Q231. A 26 year old man Is having problems conceiving with his partner. He is tall and is noted to have gynaecomastia and microorchidism on examination. What is the most common cause of infertility in a man of this description?

1- Fragile X

**2- Klinefelters syndrome**

3- Marfan syndrome

4- Cystic fibrosis

5- Down syndrome

Q232. What is a common protein mutation in hereditary spherocytosis?

1- Vimentin

2- Dystrophin

3- Actin

**4- Spectrin**

5- Demantin

Q233. What is the inheritance pattern of ccute intermittent porphyria?

**1- Autosomal dominant**

2- Mitochondrial

3- X linked dominant

4- X linked recessive

5- Autosomal recessive

Q234. A man is diagnosed with Huntingtons disease aged 39. His father was diagnosed in his 50s, and his grandfather in his 80s. How is this pattern described?

1- Inactivation

2- Regression

3- Increasing penetrance

4- Increasing dominance

**5- Anticipation**

Q235. A 24 year old female is referred to the genetic clinic. Her maternal aunt died from breast cancer at the age of 28 and another aunt had ovarian cancer at the age of 34. Her own mother had suffered from breast cancer at a young age. Her maternal uncle had colon cancer at age 42. Which gene is responsible?

1- ATM

2- p53

3- BRCA2

**4- BRCA1**

5- Nil sporadic

Q236. Which of the following infections occurring recurrently is a feature of complement deficiency?

1- Giardia lamblia

**2- Meningococcal**

3- Pneumocystis Jiroveci

4- Viral

5- Mycoplasma pneumoniae

Q237. What is true regarding Sezary syndrome?

1- Disorder of red blood cells

2- Thrombocytopenia

**3- T-cell malignancy**

4- B-cell malignancy

5- Associated with dry mouth

Q238. There is evidence of a paraprotein band in a patients blood results. How do you differentiate between a myeloma or MGUS?

1- Levels of different immunoglobulins

**2- Bence Jones Protein**

3- Beta 2 glycoprotein

4- Presence of Anaemia

5- Hypercalcaemia

Q239. What is true regarding Churg Strauss syndrome?

1- Not associated with asthma or rhinitis

2- cANCA positive

3- Medium sized vessel vasculitis

**4- pANCA positive**

5- pANCA negative

Q240. A 55 year old gentleman with a history of hypertension, currently controlled with ramipril, presents with swelling of his tongue and lips. What is the most likely diagnosis?

**1- Angioedema secondary to ramipril**

2- C1 inhibitor deficiency

3- Trauma

4- Hereditary angioedema

5- Anaphylactic reaction

Q241. What therapy can be useful in severe oral and genital ulceration?

**1- Thalidomide**

2- Etanercept

3- Methotrexate

4- Infliximab

5- Nil

Q242. How are the majority of hereditary complement deficiencies inherited?

1- X linked dominant

2- X linked recessive

3- Mitochondrial

**4- Autosomal recessive**

5- Autosomal dominant

Q243. A child has recurrent pyogenic infection. What is the most likely diagnosis?

1- C2 deficiency

2- B cell deficiency

3- Killer T cell deficiency

**4- Mannose binding lectin deficiency**

5- Helper T cell deficiency

Q244. Which of the following is involved in in a tuberculin skin reaction?

1- NK Cells

**2- Interferon Gamma**

3- Immune Complex Deposition

4- Plasma Cells

5- Interleukin 10

Q245. Which of the following confirms anaphylaxis over angiooedema if there is any doubt of the diagnosis?

1- Hypereosinophilia

2- Neutrophilia

3- Facial Oedema

4- Rash

**5- Elevated Serum Mast Cell Tryptase**

Q246. A 20 year old male with anaphylaxis is brought to A+E with facial and tongue swelling and wheeze. He has a venflon in situ. Which of the following must be administered immediately?

**1- IM adrenaline**

2- IV adrenaline

3- Nebulised salbutamol

4- IV corticosteroids

5- IV chlorphenamine

Q247. Which of the following is most likely to be associated with cholesterol embolisation?

1- Neutrophilia

2- Lymphocytosis

**3- Eosinophilia**

4- Leucocytosis

5- Neutropenia

Q248. What immunoglobulin if present in low levels can be associated with Coeliac Disease?

1- IgA

2- IgG

3- IgE

**4- IgA**

5- IgD

Q249. What is true about regarding monoclonal free light chains?

1- They do not lead to renal damage

**2- They are commonly found in the urine of Multiple myeloma**

3- They are found in Amyloidosis

4- They are pathognomonic of MGUS

5- They are pathognomonic of Waldenstroms macroglobulinaemia

Q250. Which of the following is a live vaccine?

1- Cholera vaccination

2- Hepatitis vaccination

3- Pertussis vaccination

**4- Yellow fever vaccination**

5- Salk polio vaccination

Q251. What is the main contributory factor to the immunodeficiency seen in chronic lymphocytic leukaemia?

**1- Hypogammaglobulinaemia**

2- Interleukin 10 activity

3- Neutropenia

4- T cell deficiency

5- Lymphopenia

Q252. A 24 year old with latex is brought to A+E with anaphylactic shock. Which fruit is associated with latex allergy?

**1- Banana**

2- Orange

3- Grapefruit

4- Apple

5- Pear

Q253. A 27 year old gentleman has had a previous splenectomy for ITP. Since his splenectomy he has had 2 episodes of pneumonia. Post splenectomy what type of immunodeficiency is occurs?

**1- Humoral**

2- Cell mediated

3- Helper T cells

4- Complement mediated

5- Killer T cells

Q254. In C2 deficiency as well as increased risk of recurrent bacterial infections, what else is there is an increased risk of?

1- Colorectal cancer

2- Angiooedema

**3- Cardiovascular disease**

4- Viral infections

5- Pancreatic cancer

Q255. In cryoglobulinaemia, what is the most likely diagnosis if there is both a monoclonal and polyclonal element?

1- Amyloidosis

2- Hepatitis B

3- Rheumatoid arthritis

4- Haematological malignancy

**5- Hepatitis C**

Q256. A 14 year old girl with type 1 Diabetes Mellitus presents abdominal bloating, steatorrheoa, fatigue and weight loss. What serological investigation would you perform?

**1- IgA antitransglutaminase**

2- IgG antiendomysial antibodies

3- Immunoglobulins

4- Antigliadin Antibodies

5- IgA antiendomysial antibodies

Q257. A 27 year old female gives birth to her second baby who is noted to be very bradycardic at 60. She has a history of Sjorgens syndrome. Which antibody could have caused the childs bradycardia?

1- Anti-LKM1

2- ANA

**3- Anti-ro**

4- RF

5- Anti-Jo

Q258. Positive Anti-Ro antibodies with no other autoantibodies present is indicative of what condition?

1- Rheumatoid Arthritis

2- Polymyositis

3- Dermatomyositis

4- Sjögrens syndrome

**5- SLE**

Q259. In hereditary angio-oedema (HA E) , what is likely to be helpful in diagnosis?

1- ANA

**2- Persistently low C4 levels**

3- Drug history of taking ACE inhibitors

4- Persistently low C3 levels

5- Persistently low C3 and C4 levels

Q260. A patient presents with acute hereditary angioedema. On examination there is evidence of stridor. How do you manage this patient?

1- IM Adrenaline

2- IV hydrocortisone

3- IV Fluids

4- IV Chlorphenamine

**5- C1 inhibitor concentrate**

Q261. What autoimmune disorder is related to C1q deficiency?

1- Systemic Sclerosis

2- Chaug-Strauss

**3- SLE**

4- Autoimmune Hepatitis

5- Goodpastures syndrome

Q262. A 22 year-old gentleman has presented due to the fact he has noticed he is recurrent suffering from colds and flu. There is nil of note on examination and bloods are unremarkable. What is the most liekly diagnosis?

**1- IgD deficiency**

2- IgG deficiency

3- IgM deficiency

4- IgE deficiency

5- IgA deficiency

Q263. A 16 year old presents due to loss of fat around her face and upper body after a viral illness. You suspect she has acquired lipodystrophy. What complement deficiency is associated with this?

1- C2

2- C1

3- C7

**4- C3**

5- C5

Q264. A 24 year old with latex is brought to A+E with anaphylactic shock. Which fruit is associated with latex allergy?

1- Pear

2- Orange

3- Grapefruit

**4- Banana**

5- Apple

Q265. A 27 year old gentleman has had a previous splenectomy for ITP. Since his splenectomy he has had 2 episodes of pneumonia. Post splenectomy what type of immunodeficiency is occurs?

1- Helper T Cells

2- Complement-mediated

3- Cell mediated

4- Killer T CellsPost splenectomy there is increased susceptibility to H. Influenzae, N. Meningitidis and Strep pneumonia which are encapsulated organisms due to the loss of splenic macrophages which are part of the humoral response.

**5- Humoral**

Q266. Which of the following is an HLA-class II antigen?

1- HLA-C

2- HLA-A

3- HLA-G

4- HLA-B

**5- HLA-DR**

Q267. A 54 year old female has a PMH of asthma and has an allergy to cats, dogs and pollen. She has been admitted for an elective operation however after induction with veroconium and propfol suffers anaphylactic shock. What is the most likely cause?

1- Propofol

2- Nitrous Oxide

**3- Vecuronium**

4- Contaminated operating theatre

5- Latex allergy

Q268. What statement is true regarding the immune system?

1- CD8 T cells interact with all cells via MHC class II

**2- CD4 T cells interact with B cells via MHC class II**

3- CD8 T cells are responsible for antibody production

4- CD4 T cells interact with B cells via MHC class I

5- Only macrophages express MHC 1

Q269. In what percentage of the normal population would you expect to find raised IgE levels

1- 5%

**2- 2.5%**

3- 10%

4- 1%

5- 15%

Q270. If you suspect a patient has an allergy to peanuts however the RAST testing has antibodies within the normal range, what can you conclude?

1- Peanut allergy due to clinical suspicion

2- Repeat the RAST test

3- Expose patient to peanuts again to assess if anaphylasis occurs

**4- Organise skin prick testing**

5- No peanut allergy

Q271. In Lambert-Eaton Syndrome what antibody is present?

1- Acetylcholine receptors

**2- Voltage-gated calcium channels-presynaptic**

3- Sodium channels

4- Potassium channels

5- Voltage-gated calcium channels-postsynaptic

Q272. What immune cells are affected chronic lymphocytic leukaemia predominantly?

1- CD4 T Cells

2- NK Cells

3- Macrophages

4- CD8 cells

**5- B cells**

Q273. If adenosine deaminase is absent from a cell i.e. in severe combined immunodeficiency disease, what does this result in?

1- Leads to degeneration of deoxyadenosine

2- Upregulation of receptors

3- Down regulation of receptors

4- Synthesis of deoxyadenosine

**5- Leads to accumulation of deoxyadenosine**

Q274. What complement deficiency is associated with Neisseria infection?

1- C3

2- C1

**3- C5**

4- C2

5- C4

Q275. A patient presents with hypocalcaemic tetany. He has abnormal ears, hypertelorism and an absent thymus. What is the likely diagnosis if a patient has an absent thymus, hypocalcaemia and abnormal ears?

1- Tay

2- Wiskott

3- Downs Syndrome

4- Severe Combined Immunodeficiency

**5- DiGeorge syndrome**

Q276. A 13 year old girl is brought to the GP unwell with a rash, fever and arthralgia. There is nil of note on examination however on dipstick there is protein and blood present in his urine. He has a marginally elevated CRP and elevated Antistreptolysin-O titres. What is occurring?

**1- Type III hypersensitivity reaction**

2- Type II hypersensitivity reaction

3- Type IV hypersensitivity reaction

4- Type I hypersensitivity reaction

5- Cryoglobulinaemia

Q277. In SLE what abnormal immune response is seen?

1- Alternative complement pathway activation

2- C3 complement deficiency

**3- Type III Hypersensitivity**

4- Type I hypersensitivity reaction

5- Type IV hypersensitivity reaction

Q278. Which class of immunoglobulin is associated with periodic fever?

**1- IgD**

2- IgE

3- IgA

4- IgM

5- IgG

Q279. The alternative complement pathway can be fixed by which immunoglobulin?

**1- IgA**

2- IgG

3- IgE

4- wIgD

5- IgM

Q280. On an immunoglobulin what region forms the antigen binding site?

**1- Variable region of a heavy and light chain**

2- The constant region of both heavy chains

3- Light chain

4- Heavy chain

5- Constant region of heavy and light chain

Q281. In the serum which class of antibody accounts for the highest proportion?

1- IgD

**2- IgG**

3- IgE

4- IgA

5- IgM

Q282. Which cells would you expect to be absent in a patient with hypocalcaemia, abnormal ears, a shortened philtrum, micrognathia and hypertelorism?

1- Eosinophils

2- Macrophages

3- B lymphocytes

4- Neutrophils

**5- T lymphocytes**

Q283. What is the most likely diagnosis if a patient presents with eczema, thrombocytopenia and recurrent infections?

1- Familial Mediterranean Fever

**2- Wiskott-Aldrich syndrome**

3- DiGeorge Syndrome

4- ITP

5- Hyper-IgE syndrome

Q284. A patient with partial lipodystrophy develops nephrotic syndrome, what investigation will indicate the likely renal pathology?

**1- Complement studies**

2- ANA

3- Antistreptolysin titre (ASO T) 4- Serum immunoglobulins

5- HIV testing

Q285. What investigation should be performed to support a diagnosis of primary biliary cirrhosis?

1- Anti-smooth muscle antibodies

2- Raised serum IgM

**3- Antimitochondrial antibodies**

4- Anti-LKM1

5- Reduced serum IgM

Q286. What antibody test would support the diagnosis of a paraneoplastic syndrome in a patient who you suspect may have prostatic cancer?

1- Anti-smooth muscle antibodies

**2- Anti-Hu antibodies**

3- Anti-Yo antibodies

4- Anti-nuclear antibodies

5- Anti-Ro antibodies

Q287. What test would you organise to confirm contact dermatitis secondary to nickel?

**1- Patch testing**

2- Specific Antibody testing

3- Atopy patch testing

4- Immunoglobulin Measurement

5- Skin-prick testing

Q288. A 70 year old man presents with pyrexia, fatigue, weight loss, hypertension, mononeuritis monoplex and deranged Us and Es. You suspect Polyarteritis nodosa.

1- Positive ENA

2- Positive c-ANCA

3- Positive p-ANCA

**4- ANCA-negative**

5- Positive ANA

Q289. A 32 year old nurse develops 10 minutes after putting on latex gloves, intensely itchy hands and there is evidence of red weals.

**1- Type I Hypersensitivity**

2- Type III Hypersensitivity

3- Type II Hypersensitivity

4- Type IV Hypersensitivity

5- Complement-mediated

Q290. A 25 year old female presents to her GP due to a feeling of itchiness when eating apples. She also complains of rhinitis in April/May. Which of the following is the most likely diagnosis?

1- Anaphylaxis

2- Functional Disorder

3- Food Allergy

**4- Birch-associated oral allergy syndrome**

5- Allergic Rhinitis

Q291. Which agent would you utilise in a patent with known SLE who has developed autoimmune neutropenia?

**1- Mycophenolate mofetil**

2- Thalidomide

3- Azathioprine

4- Ciclosporin

5- Methotrexate

Q292. A 55 year old presents with bilateral claudication of her arms after minimal exertion. She is a non smoker and has no significant past medical history. On examination she has impalpable radial pulses. There is nil else of note. She has raised ESR and CRP. What is the most likely diagnosis?

1- Cervical Disc Prolapse

2- Thoracic Outlet Syndrome

**3- Takayasus arteritis**

4- Buergers disease

5- Giant-cell arteritis

Q293. In regards to haemolytic disease of the newborn, what is true regarding antibodies?

1- Antibodies to Rhesus antigens are IgD

2- Antibodies to ABO antigens are IgE

3- Antibodies to ABO blood groups are IgG and antibodies to Rhesus antigens are IgM

4- Antibodies to ABO blood groups are IgA

**5- Antibodies to ABO blood groups are IgM and antibodies to Rhesus antigens are IgG**

Q294. In Wegeners Granulomatosis what would you expect to find on immunohistochemical analysis of renal tissue?

1- Antibody deposition

2- Immune complex deposition along the basement membrane

3- Complement deposition

4- Macrophages

**5- No immune deposits**

Q295. A 70 year old male was found to have a paraprotein band on routine bloods. He had a past medical history of Hypertension but was very well and fit otherwise. All other blood results were normal and there was no evidence of Bence Jones protein and no evidence of lytic lesions on a skeletal survey. There was nil of note on examination. What is the most likely diagnosis?

1- Chronic Infection

2- Spurious result

3- Multiple myeloma

**4- Monoclonal gammopathies of undetermined significance (MGU S) 5- Waldenstroms macroglobulinaemia**

Q296. In an asymptomatic 50 year old lady, what is the most likely explanation of a weakly positive ANA?

1- Malignancy

2- Sub clinical Rheumatoid Arthritis

**3- Age**

4- Infection

5- Undiagnosed SLE

Q297. In hypogammaglobulinaemia what infection is there an increased susceptibility to?

1- Staphylococcus Aureus

2- Herpes simplex virus

**3- Haemophilus influenzae**

4- Mycobacterium Tuberculae

5- Klebsiella

Q298. In IgE mediated reactions such as asthma or anaphylaxis what therapy inhibits the important late-phase reaction?

1- Adrenaline

2- Montelukast

3- Chlorphenamine

**4- Steroids**

5- Salbutamol

Q299. In a patient with hereditary angioedema presenting with severe abdominal pain, how would you manage this?

1- Opioids

2- Buscopan

3- Adrenaline

4- FFP

**5- C1-inhibitor concentrate**

Q300. What is true in regards to B cells?

1- They predominantly act through complement pathways

**2- B cells can undergo somatic hypermutation**

3- B cells lead to cell mediated immunity

4- They are predominantly produced in the thymus

5- B cells interact with other cells via MHC 1

Q301. When there is evidence of a paraprotein what is most suggestive of Waldenstroms macroglobulinaemia rather than multiple Myeloma?

1- Bence Jones Protein

2- Hyperviscosity

3- Renal failure

**4- Normal IgG and IgA levels**

5- Anaemia

Q302. What is true regarding an IgA deficiency?

1- Increased risk of Iron deficiency anaemia

2- Nil significant

3- Increased risk of GI haemorrhage

4- Can suffer severe viral infection

**5- They can have IgG2 deficiency which leads to recurrent bacterial infections**

Q303. What excludes IgG subclass deficiency?

1- Recurrent infections with streptococcus pneumoniae and H. Influenzae

2- Low IgA levels

3- Normal serum immunoglobulins and subclasses

**4- Good IgG antibody responses to immunisations**

5- Low IgG levels

Q304. The finding of antithyroid microsomal and antithyroglobulin antibodies suggests what diagnosis?

1- Coeliac Disease

2- Graves disease

**3- Hashimotos thyroiditis**

4- Reidels thyroiditis

5- Secondary hypothyroidism

Q305. What is true regarding vasculitis?

1- Wegeners granulomatosis mainly affects medium-large blood vessels

2- Behçet's disease affects veins precapillary

3- Takayasus arteritis affects small-medium blood vessels

**4- Classical polyarteritis nodosa affects medium arteries**

5- Churg-Strauss syndrome mainly affects medium-large blood vessels

Q306. A patient presents with anterior uveitis. An underlying systemic cause is thought to be present. What is the least likely cause?

1- Beh

2- Ankylosing Spondylitis

3- Inflammatory bowel disease

**4- Lymphoma**

5- Sarcoid

Q307. What food allergy is most associated with latex allergy?

1- Cucumber

2- Melons

3- Avocados

4- Kiwis

**5- Bananas**

Q308. What is true in regards to anaphylaxis?

**1- Can be exacerbated by exercise**

2- Peanut allergy is not a common cause

3- Only 1 % have a recurrence within 24 hours

4- Most common cause of fatality is cardiovascular complications

5- Does not ever require adrenaline

Q309. What is true regarding complement activation?

1- IgG activates the alternative pathway

2- Activation of coagulation cascade does not lead to complement activation

3- IgE leads to activation of classical pathway

**4- The Membrane Attack Complex is formed by C5-C9**

5- The inappropriate activation of complements pathway is not involved in autoimmune diseases

Q310. What would positive if you had previously been vaccinated with Hepatitis B?

1- Anti-HBsAb + anti-HBcAb

2- Anti-HBeAb

**3- Anti-HBsAb**

4- HBsAg + HBcAg

5- Anti-HBeAb + Anti-HBsAg

Q311. What is true regarding hyperacute rejection after renal transplantation?

1- It is T cell mediated

2- Occurs approximately one month post op

**3- Occurs secondary to preformed circulating antibodies**

4- It is due to ABO incompatibility

5- Ciclosporin is not useful for management

Q312. What antibodies are associated with myasthenia gravis?

1- Antibodies to

2- Antibodies to myosin

**3- Antibodies to Acetylcholine receptors**

4- ANA

5- Anti-dsDNA

Q313. What disease is closely associated with HLA B5?

**1- Behcets syndrome**

2- Ankylosing Spondylitis

3- Rheumatoid Arthritis

4- Polymyositis

5- Coeliac Disease

Q314. Which of the following is not true regarding pulmonary surfactant?

1- Produced by type II alveolar cell

2- Lowers surface tension

3- Increases pulmonary compliance

**4- Produced by type I alveolar cells**

5- Hydrophilic and hydrophobic region

Q315. Prolactin leads to suppression of which of the following?

1- ADH

**2- Oestradiol**

3- Growth hormone

4- Nil

5- Thyroid

Q316. Where is B type natriuretic peptide secreted from?

**1- Ventricles**

2- Renal mesangium

3- Left atrium

4- Carotid body

5- Right atrium

Q317. Which oxygen delivery device should be utilised in COPD patients?

1- Trauma mask

2- Simple face mask

3- Nasal cannulae

**4- Venturi mask**

5- CPAP

Q318. How is the majority of cortisol metabolised and excreted from the body?

1- Metabolised in liver and excreted in bile acids as free cortisol

2- Metabolised in liver and excreted in the urine as cortisol

**3- Metabolised in liver, metabolites conjugated and excreted in the urine**

4- Metabolised in liver and excreted in bile acids as conjugated metabolites

5- Hepatic metabolism

Q319. Which of the following is a feature of diastolic dysfunction?

1- Impaired myocardial contraction

2- High output

3- Dilated left ventricle

4- Reduced end diastolic volume

**5- Impaired myocardial relaxation**

Q320. What compensatory mechanism occurs to counteract dehydration?

1- Reduced cortisol levels

2- Reduced ADH levels

**3- Increased aquaporin 2 in collecting ducts**

4- Increased renal blood flow

5- Increased sodium excretion

Q321. The repolarization of cardiac muscle action potential is predominantly due to which of the following?

**1- Potassium current**

2- Sodium/Potassium pump

3- Closure of potassium channels

4- Sodium current

5- L type Calcium current

Q322. Which of the following provides the best description of how alcohol leads to a diuresis?

1- Inhibition of Na-K-2Cl channels

2- Increased BNP secretion

**3- Reduction of aquaporin 2 channel insertion in apical membrane of distal tubules and collecting ducts**

4- Increased aquaporin 2 channel insertion in apical membrane of distal tubules and collecting ducts

5- Vasodilation of afferent arteriole

Q323. What is the dicrotic notch produced by?

1- Opening of mitral valve

2- Closure of mitral valve

3- Opening of aortic valve

**4- Closure of aortic valve**

5- closure of pulmonary valve

Q324. Which of the following enzymes is required for fatty acid oxidation?

1- Lipase

2- HMG CoA Reductase

**3- Carnitine acyltransferase I**

4- Glucokinase

5- Cyclooxygenase

Q325. A young doctor finds that he is light headed every morning until he eats breakfast. Which of the following is abnormal in this case?

1- Glycosylation

2- Ketogenesis

3- Pentose phosphate pathway

4- Glycolysis

**5- Gluconeogenesis**

Q326. Thiazide diuretics are thought to act upon which of the following?

1- Glomerulus

2- Collecting duct

3- Descending loop of Henle

4- Proximal convoluted tubule

**5- Distal convoluted tubule**

Q327. Which of the following ABGs results is due to an error in the analysis?

1- pH 7.38; pO2 10.6 kPa; pCO2 6.5 kPa; bicarbonate 34 mmol/l

2- pH 7.5; pO2 12.5 kPa; pCO2 3.2 kPa; bicarbonate 16 mmol/l

**3- pH 7.25; pO2 11.1 kPa; pCO2 2.8 kPa; bicarbonate 26 mmol/l**

4- pH 7.39; pO2 11.1 kPa; pCO2 3.7 kPa; bicarbonate 18mmol/l

5- pH 7.38; pO2 11.8 kPa; pCO2 5.6 kPa; bicarbonate 26 mmol/l

Q328. A COPD patient has the following blood gas, pH 7.24, CO2 9.5 kPa, O2 9 kPa, bicarbonate 33mmol/l. What is the acid base disturbance?

**1- Acute exacerbation of chronic respiratory acidosis**

2- Acute respiratory acidosis

3- Acute exacerbation of chronic metabolic acidosis

4- Chronic, compensated respiratory acidosis

5- Acute exacerbation of chronic respiratory alkalosis

Q329. Which of the following suggests proximal tubular dysfunction?

1- Hyperkalaemia

**2- Metabolic acidosis**

3- Alkaline urine

4- Hyperuricaemia

5- Haematuria

Q330. Which of the following is in a state of continuous inhibition?

1- FSH

2- TSH

3- LH

**4- Prolactin**

5- ACTH

Q331. What happens to the pulmonary vasculature in a patient with pneumonia?

**1- Vasoconstriction of vessels in area of lung with pneumonia and vasodilatation in normal lung**

2- Vasoconstriction of vessels in area of lung with pneumonia and vasoconstriction in normal lung

3- Vasodilatation of vessels in area of lung with pneumonia and vasoconstriction in normal lung

4- No change

5- Vasodilatation of vessels in area of lung with pneumonia and vasodilatation in normal lung

Q332. A 72 year old female is admitted with confusion and shortness of breath. She has a past medical history of ischaemic heart disease. She is pyrexial and there is evidence of left basal crepitations. She is tachycardic and is hypotensive. Given the most likely cause of her hypotension, what would you expect to find on measurement of her central venous pressure (CV P) , pulmonary capillary wedge pressure (PA P) and pulmonary artery wedge pressure (PCW P) ?

1- Low CVP, normal PAP and PCWP

2- Low CVP, elevated PAP and PCWP

3- Elevated CVP, PAP and PCWP

**4- Low CVP, PAP and PCWP**

5- Normal CVP, PAP and PCWP

Q333. A patient with COPD has an FEV1 of 70%. What is the severity of airflow obstruction?

**1- Moderate**

2- Normal

3- Severe

4- Mild

5- Very severe

Q334. A patient is thought to be suffering from refeeding syndrome. What metabolic abnormality is the most important to monitor for?

1- Hyponatraemia

2- Hypomagnesaemia

**3- Hypophosphataemia**

4- Hypokalaemia

5- Hyperkalaemia

Q335. What is the P1 receptor responsible for?

1- Glucose uptake into the cell

2- Histamine release

3- Downregulation of insulin receptors

4- Immunosuppression

**5- Apoptosis**

Q336. What type of myocardial infarct has occurred if there is ST elevation in leads I, aVL, and V4 to V6?

1- Lateral STEMI

2- Posterior Infarct

3- Inferior STEMI

4- Inferior NSTEMI

**5- Anterolateral STEMI**

Q337. Which of the following requires parenteral replacement after gastrectomy?

**1- Vitamin B12**

2- Vitamin K

3- Iron

4- Vitamin D

5- Vitamin A

Q338. What type of myocardial infarct has occurred if there is ST elevation in leads II, III and aVF?

1- Inferior NSTEMI

2- Anterolateral STEMI

**3- Inferior STEMI**

4- Lateral STEMI

5- Posterior Infarct

Q339. A young lady with normal breast development and no obvious abnormalities is investigated for amenorrhoea. Her karyotype reveals 46XY. What is the diagnosis?

1- Turner syndrome

2- Smith Lemli Opitz syndrome

**3- Androgen insensitivity syndrome**

4- XY gonadal dysgenesis

5- Klinefelters syndrome

Q340. Which of the following is a mechanism by which Brain Natiuretic Peptide causes it's effects in the body?

**1- Inhibits renin release**

2- Stimulates renin release

3- Vasoconstriction

4- Angiotensin receptor blocker

5- Inhibits angiotensin converting enzyme

Q341. A 68 year old female with hypertension is admitted with Pneumonia. She is found to have a Sodium of 121 although her urea, creatinine and potassium are normal. Her Heart rate is 95 and her BP is 130/60 and there is no evidence of peripheral oedema. How would you manage her hyponatraemia?

1- Furosemide

2- IV fluids

**3- Fluid restriction and suspend likely causative drugs**

4- Demeclocycline

5- 1.8% saline

Q342. Where is troponin found within the cardiac myocyte?

1- Next to the thick myofilaments

2- Nucleus

3- Golgi apparatus

4- Mitochondria

**5- Next to the thin myofilaments**

Q343. How is glucokinase downregulated in the liver?

1- Reduced production of glucokinase

2- Reduced affinity

3- Co activation

**4- Co repression**

5- Reduced genetic expression

Q344. Which of the following, best describes the mechanism of action of erythropoietin?

1- Increased oxygen affinity

**2- Increased red cell mass and oxygen carrying capacity**

3- Increased muscle mass

4- Produces a primary polycythaemia

5- Reduced red cell mass and oxygen carrying capacity

Q345. Which of the following drugs is most likely to cause gingival hypertrophy?

1- Atenolol

2- Simvastatin

3- Amiodarone

4- Warfarin

**5- Phenytoin**

Q346. Which enzyme is involved in prostaglandin synthesis?

1- Lipoxygenase

2- Carnitine acyltransferase I

3- Glucokinase

**4- Cyclooxygenase**

5- HMG CoA Reductase

Q347. Which of the following results suggests SIADH, when a serum sodium is found to be 124 mmol/L?

**1- Plasma osmolality of 240 mmol/kg and Urine osmolality of 600 mmol/Kg**

2- Plasma osmolality of 240 mmol/kg and Urine osmolality of 230 mmol/Kg

3- Peripheral Oedema

4- Urea of 12.5

5- Urea of 1.9

Q348. A 51 year old Middle Eastern woman complains of muscle weakness and bone pain at her hips, knees and back. Lab tests show hypocalcaemia and psuedofractures are found radiographically in her right femur. What is the likely cause?

1- Osteoclast overactivity

2- Kidney failure

3- Metastases

4- Osteoblast overactivity

**5- Poor absorption of calcium from the gut**

Q349. Which of the following would cause a high blood glucose level immediately following major trauma?

1- Insulin

2- T3

3- Cortisol

4- Serotonin

**5- Adrenaline**

Q350. A 40 year old joins a gym for the first time but finds that he gets painful muscle cramps with light exercise which resolve quickly after a few minutes. His lactic acid levels do not rise with an exercise test and his resting creatine kinase levels are moderately raised. What has caused this problem?

1- Inability to store glycogen in the muscles

2- Diabetes Mellitus

3- Impaired breakdown of liver glycogen

**4- Impaired breakdown of muscle glycogen**

5- Inability to store glycogen in the liver

Q351. A young man presents to his GP with dark urine and jaundice 2 days before he leaves for an elective in Malawi. What is the diagnosis?

1- Muscle glycogen phosphorylase deficiency

2- Glucose 6 phosphatase deficiency

**3- Glucose 6 phosphate dehydrogenase deficiency**

4- Bilirubin glucuronyltransferase deficiency

5- Sulfatase deficiency

Q352. A 19 year old man is referred to his GP after a company health test found protein in his urine. A repeat urinalysis was positive for protein only, he has no symptoms and no signs of note. Blood tests are unremarkable. What is the diagnosis?

1- Goodpastures syndrome

2- Minimal change disease

3- Orthostatic proteinuria

4- Nephrotic syndrome

**5- UTI**

Q353. A patient on nasogastric aspiration develops metabolic alkalosis. Which fluid would be most suited?

1- Ringers lactate

**2- Normal saline**

3- Hartmanns

4- Dextrose saline

5- 5% dextrose

Q354. What would suggest metabolic alkalosis in a patient with a bicarbonate of 36 mmol/l?

1- Hypokalaemia

2- Low CO2

3- Alkaline urine

**4- Raised CO2**

5- Raised anion gap

Q355. A 32 year old male has visited his GP on several occasions with anorexia, nausea, weight loss and dizziness. He appears tanned. He then presents to A and E with diarrhoea and vomiting. He is found to be tachycardic, hypotensive and drowsy. He is found to be hyponatraemic and his potassium is at the higher range of normal. What is the most likely diagnosis?

1- Cerebral salt wasting

**2- Addisons Disease**

3- Gastroenteritis

4- Irritable bowel syndrome

5- Hypothyroidism

Q356. A 72 year old male who is known to have ischaemic heart disease and peripheral vascular disease presents with dysarthria, vertigo, ataxia, left sided Horners syndrome and reduced sensation to left side of face and reduced sensation of the right side of body. What artery is the most likely diagnosis?

**1- Posterior inferior cerebellar artery stroke**

2- Lacunar stroke

3- Posterior cerebral artery stroke

4- Anterior cerebral artery stroke

5- Middle cerebral artery stroke

Q357. A 72 year old male who is known to have ischaemic heart disease and peripheral vascular disease is brought to A+E after collapsing. He is dysphasic and on examination there is evidence of left sided weakness, upper limb worse than lower limb and left sided sensory loss. There is also a homonymous hemianopia. What is the most likely diagnosis?

1- Anterior cerebral artery stroke

2- Lacunar stroke

3- Posterior inferior cerebellar artery stroke

4- Posterior cerebral artery stroke

**5- Middle cerebral artery stroke**

Q358. Which of the following does not lead to an increase in growth hormone secretion?

1- Hypoglycaemia

2- Growth hormone releasing hormone

3- Amino acids

**4- Hyperglycaemia**

5- Exercise

Q359. What is the pathophysiology of Parkinsons disease?

1- Degeneration of substantia nigra cells and increased dopamine

2- Degeneration of caudate and loss of dopamine

3- Degeneration of globus pallidus and loss of dopamine

4- Degeneration of substantia nigra cells and loss of serotonin

**5- Degeneration of substantia nigra cells and loss of dopamine**

Q360. Which of the following does not increase in exercise?

1- Systolic blood pressure

2- Carbon dioxide formation

**3- Peripheral vasoconstriction**

4- Alveolar ventilation

5- Stroke volume

Q361. Which of the following does not lead to a reduction in the lower oesophageal sphincter pressure?

1- Bending

2- Smoking

3- Caffeine

4- Spicy foods

**5- Standing**

Q362. Which of the following is not true regarding pulmonary surfactant?

1- Lowers surface tension

**2- Produced by type I alveolar cells**

3- Increases pulmonary compliance

4- Hydrophilic and hydrophobic region

5- Produced by type II alveolar cells

Q363. Which of the following is not true regarding chemoreceptors?

1- Peripheral chemoreceptors are located in carotid and aortic bodies

2- Hydrogen ions in the CSF affect central chemoreceptors

3- Low oxygen level stimulate respiratory drive

**4- Increased carbon dioxide leads to reduced respiratory drive**

5- Increased carbon dioxide leads to increased respiratory drive

Q364. Which of the following is not true in regards to the ear and hearing?

1- Low frequency waves cause vibration of basilar membrane at the apex

2- Stereocilia are connected to the tectorial membrane

3- Normal hearing frequency only ranges from 20 to 2000 Hz

**4- The stapes connects to the round window**

5- High frequency waves cause vibration of basilar membrane at the base

Q365. In the adrenal gland where is aldosterone produced?

1- Zona Fasciculata

2- Adrenal Medulla

**3- Zona Glomerulosa**

4- Zona Reticularis

5- Adrenal Cortex

Q366. In the adrenal gland where is cortisol produced?

**1- Zona Fasciculata**

2- Adrenal Medulla

3- Adrenal Cortex

4- Zona Glomerulosa

5- Zona Reticularis

Q367. A surge in which of the following predominantly leads to ovulation?

1- Luteinising hormone

2- Progesterone

3- Oestradiol

4- Follicle stimulating hormone

**5- Growth hormone**

Q368. Which of the following does not lead to an increase in peripheral vascular resistance?

1- Adrenaline

**2- Exercise**

3- Hypothermia

4- Hypovolaemia

5- Angiotensin

Q369. Which of the following equations represents vital capacity?

1- Inspiratory reserve volume plus Expiratory reserve volume

2- Expiratory reserve volume and Residual volume

3- Inspiratory reserve volume plus tidal volume

4- Inspiratory reserve volume plus Tidal volume plus Expiratory reserve volume plus Residual volume

**5- Inspiratory reserve volume plus Tidal volume plus Expiratory reserve volume**

Q370. What would you expect to see on pulmonary function testing when the patient has an obstructive pattern?

1- Reduced diffusion capacity, normal FEV1/FVC ratio, total lung capacity increased

2- Normal diffusion capacity, normal FEV1/FVC ratio, total lung capacity increased

**3- Reduced diffusion capacity, reduced FEV1/FVC ratio, total lung capacity increased**

4- Reduced diffusion capacity, normal FEV1/FVC ratio, total lung capacity reduced

5- Reduced diffusion capacity, reduced FEV1/FVC ratio, total lung capacity reduced

Q371. What is the normal tidal volume for a male?

1- 1000mls

2- 350mls

3- 250mls

4- 1500mls

**5- 500mls**

Q372. Which of the following leads to a shift of the oxygen haemoglobin dissociation curve to the right?

1- Increased pH

2- Low CO2 level

3- Hypothermia

4- Reduced 2,3 DPG

**5- Pyrexia**

Q373. Which of the following leads to a shift of the oxygen haemoglobin dissociation curve to the left?

1- Reduced pH

**2- Hypothermia**

3- Increased CO2

4- Pyrexia

5- Increased 2,3 DPG

Q374. Which of the following is one of the earliest features of hypovolaemia?

1- Tachypnoea

2- Reduced urine output

3- Hypotension

**4- Peripheral vasoconstriction**

5- Tachycardia

Q375. How do you calculate the anion gap?

1- ((Na+) + (K+) + (H+)) - ((Cl-) + (HCO3-))

**2- ((Na+) + (K+)) minus ((Cl-) + (HCO3-))**

3- ((Na+) + (Cl-)) - ((K+) + (HCO3-))

4- ((Na+) + (K+)) - ((Cl-) + (H+))

5- ((Na+) + (K+)) + ((Cl-) + (HCO3-))

# Chapter 2 Cardiology

Q376. B type natriuretic peptide is likely to be normal in which of the following?

1- Pulmonary Embolus

2- Acute STEMI

3- Acute mitral regurgitation

**4- Unstable angina**

5- LVF

Q377. A 69 year old gentleman was being treated for a chest infection with antibiotics. He has previous history of myocardial infarction and as well as the current antibiotic course he is also taking aspirin, atorvastatin and perindopril. He then collapses 2 days after the antibiotics began and was taken to A and E. When you examine him he has a BP of 130/80mmHg, heart rate of 80 bpm and he rest of his exam is unremarkable. You notice however on the cardiac monitor he is having short runs of torsade de points. What is the most likely antibiotic that he has been prescribed?

1- Doxycycline

2- Co amoxiclav

3- Cephalexin

4- Amoxicillin

**5- Clarithromycin**

Q378. An 20 year old student is brought to A and E following a collapse in an a night club. There was no suspicion of illicit drug use. He has had 3 collapse episodes previously. He had regained consciousness after a few minutes. There is nil of note on examination with BP and HR within normal parameters. However, an ECG shows a QT interval of 0.56. Which ion channel is likely to be defective and have caused these signs and symptoms?

1- Chloride

2- Calcium

**3- Potassium**

4- Magnesium

5- Sodium

Q379. A 30 year old male presents to his GP due to shortness of breath and chest discomfort whilst exercising. On examination there is a double apical impulse and a harsh mid systolic murmur loudest between the apex and the left sternal border. His ECG shows LVH and widespread Q waves. You suspect HOCM, which of the following is associated with increased risk of sudden death?

1- Loudness of murmur

2- Age

**3- Degree of left ventricular hypertrophy**

4- Family history of sudden death

5- Asymmetrical septal hypertrophy

Q380. A 23 year old female who has history of a cardiac condition wants to start a family with her husband and has been referred to the cardiology clinic for advice. What condition is an absolute contra indication to pregnancy?

1- PFO

**2- Primary pulmonary hypertension**

3- ASD

4- Mitral valve prolapse

5- Bicuspid aortic valve

Q381. A 68 year old asthmatic presents with shortness of breath. She also has a PMH of hypertension for which she is prescribed ramipril. On examination she is found to have a BP of 130/80mmHg, pulse of 90 irregularly, irregular and bilateral wheeze and normal heart sounds. A CXR reveals cardiomegaly. What is the most appropriate treatment of her AF?

1- Amiodarone

2- Atenolol

3- Flecainide

4- Verapamil

**5- Digoxin**

Q382. A 68 year old female has recently had an aortic valve replacement. She presents feeling generally unwell, feverish with night sweats and weight loss. On examination she is pyrexial and there is a murmur in the aortic area and inflammatory markers are raised. An echo suggests vegetations. What antibiotics should be started empirically?

1- Rifampicin and gentamicin

**2- Vancomycin, rifampicin and gentamicin**

3- Flucloxacillin

4- Penicillin and gentamicin

5- Vancomycin and Gentamicin

Q383. A 60 year old male presents with general malaise, pyrexia and night sweats. They have a past history of rheumatic heart disease. On examination there is evidence of a pansystolic murmur. Which is a new clinical finding. What organism is the most likely to have caused these symptoms?

1- HACEK group

2- Staph Epidermidis

3- MRSA

**4- Strep. Viridans**

5- Staph. Aureus

Q384. An 19 year old who has been generally unwell with a sore throat presents with chest pain worse on inspiration and relieved on sitting forwards. An ECG shows saddle ST elevation in numerous leads and there is a rub on auscultation. What is the most likely diagnosis?

1- Myocarditis

**2- Pericarditis**

3- EBV

4- STEMI

5- Cardiac Tamponade

Q385. A 75 year old presents with shortness of breath on exertion. On further questioning she is unable to lie flat due to breathlessness and has woken up during the night gasping for air. She has a history of hypertension. On examination there is bibasal crackles. The CXR reveals small bilateral pleural effusions, upper lobe diversion and bat wing oedema. What is the most likely diagnosis?

**1- Pulmonary oedema**

2- COPD

3- Cryptogenic fibrosing alveolitis

4- Interstitial Lung Disease

5- Pneumonia

Q386. Following a STEMI, which drug is not proven to have a mortality benefit?

1- Atorvastatin

2- Tirofiban

**3- Isosorbide mononitrate**

4- Ramipril

5- Bisoprolol

Q387. Which of the following suggests the presence of mitral regurgitation as well as mitral stenosis?

**1- Displaced apex beat**

2- Atrial fibrillation

3- Raised JVP

4- Localised tapping apex beat

5- Loud P2

Q388. A 81 year old male with a history of hypertension and inferior MI is seen in the cardiology clinic due to worsening angina and heart failure and 2 syncopal episodes. He is found to have an ejection systolic murmur loudest at the apex. Which investigation will confirm the most likely diagnosis?

1- Blood cultures

2- ECG

3- Exercise tolerance test

**4- Echocardiography**

5- Coronary angiography

Q389. A 72 year old gentleman has recently had a mitral valve replacement. He is now complaining of fatigue and shortness of breath. On examination he is pale and his sclera appear yellow. Bloods reveal a low haemoglobin, increased bilirubin, increased reticulocyte count and fragmented red cells on blood film. What is the most likely diagnosis?

1- B12 deficiency

2- Infective endocarditis

3- Cholangitis

**4- Haemolytic anaemia**

5- Iron deficiency anaemia

Q390. Which of the following might you find on clinical examination in a patient with third degree heart block?

1- Steep x and y descent

2- Variable intensity S2

**3- Variable intensity S1**

4- Tachycardia

5- Large V wave

Q391. Which of the following is not a feature of hypokalaemia on an ECG?

1- Prolonged QT

2- ST depression

3- Flattened t wave

**4- Delta wave**

5- U wave

Q392. Which of the following antibodies present in the maternal circulation may lead to congenital heart block?

1- Anti Jo1

2- Rheumatoid factor

**3- Anti Ro**

4- Anti dsDNA

5- ANCA

Q393. A 68 year old female has recently had a mitral valve replacement. She presents feeling generally unwell, feverish with night sweats and weight loss. On examination she is pyrexial and there is a murmur in the aortic area and inflammatory markers are raised. Blood cultures are taken. What other investigation is most likely to confirm the diagnosis?

1- ECG

2- ESR

**3- Transoesophageal Echocardiogram**

4- Transthoracic Echocardiogram

5- Troponin

Q394. A 62 year old has had two syncopal episodes. She complains of intermittent palpitations. There is nil of note on examination and her bloods are normal. What is a useful first investigation?

**1- 24 hour ECG**

2- Echocardiogram

3- Nil required

4- Exercise tolerance test

5- EEG

Q395. A 5 year old girl is complaining of cold painful legs. On examination her femoral pulses are weak with a blood pressure in her leg of 75/50 and in her arms of 170/110 A CXR reveals notching of the ribs. Which of the following is the most likely diagnosis?

1- PAN

**2- Coarctation of the aorta**

3- Takayasus arteritis

4- Hypertension secondary to renal disease

5- SLE

Q396. A patient presents with chest pain and shortness of breath. She has rheumatoid arthritis. She is tachycardic and hypotensive. She has a raised JVP and an ECG shows low QRS voltages. What is the most likely diagnosis?

1- Myocarditis

2- Constrictive pericarditis

**3- Cardiac tamponade**

4- Pulmonary Fibrosis

5- Pericarditis

Q397. A 30 year old woman presents with palpitations. She is found to have a regular tachycardia of 200 bpm. She is normally fit and healthy and has no past medical history however drinks 5 mugs of coffee per day and uses alcohol excessively. She is not compromised with a blood pressure of 130/80mmHg with no chest pain and no signs of heart failure. Her bloods are all within normal parameters however the ECG confirms a narrow complex tachycardia of 200 bpm. If after giving IV adenosine 3mg and then 6mg this fails what should be the next management step?

**1- IV 12mg adenosine**

2- IV Atenolol

3- DC Cardioversion

4- IV verapamil

5- IV amiodarone 900mg

Q398. A 56 year old man is 48 hours post STEMI and suddenly develops pulmonary oedema. He looks unwell with a BP of 90/50mmHg and a heart rate of 105 bpm. He has bibasal crackles and a pansystolic murmur on auscultation. What investigation due you organise?

**1- Urgent echocardiogram**

2- CXR

3- Troponin T

4- Cardiac Angiography

5- ECG

Q399. Which of the following is the most likely to lead to a fixed, wide split second heart sound?

1- Ventricular Septal Defect

2- Mitral stenosis

3- Aortic Regurgitation

4- Aortic stenosis

**5- Atrial Septal defect**

Q400. How should a patient with unstable preexcited atrial fibrillation secondary to Wolff parkinson white be managed?

1- Verapamil

**2- DC Cardioversion**

3- Adenosine

4- Atenolol

5- Digoxin

Q401. Which of the following suggests more severe mitral regurgitation?

1- Soft S1

2- Length of murmur

**3- Displacement of apex beat and systolic thrill**

4- Split S2

5- Loudness of murmur

Q402. A 65 year old gentleman with type 2 diabetes mellitus is found incidentally to have left bundle branch block on his ECG. It had not been present on previous ECGs. An ECHO reveals no structural abnormality. You want to exclude a myocardial infarct. What investigation should be performed in the first instance?

**1- Exercise tolerance test**

2- Coronary angiography

3- CT angiography

4- Repeat ECG

5- Thallium perfusion scan

Q403. An echocardiogram is performed on a patient prior to surgery and reveals a very small pericardial effusion but no other abnormalities. He is asymptomatic. What should be done regarding this prior to surgery?

1- NSAIDs

**2- Proceed with surgery, nil required**

3- Troponin

4- Postpone surgery and perform further investigations

5- Pericardial drain

Q404. A 68 year old man visits his GP due to palpitations. He had had an MI in the past and LVF and is currently on losartan and furosemide. His pulse is irregularly irregular with a rate of 90, BP 102/70mmHg, normal heart sounds but bibasal crepitations. He is referred to cardiology and an ECHO reveals dilated LA and LV. Which drug should be utilised to control his AF?

**1- Digoxin**

2- Sotalol

3- Diltiazem

4- Flecainide

5- Amiodarone

Q405. A 70 year old man with mitral stenosis requires removal of 3 teeth. he is penicillin allergic. What antibiotic prophylaxsis would you prescribe?

1- Co amoxiclav 1 hour before

**2- None**

3- Metronidazole 1 hour before

4- Amoxicillin 1 hour before

5- Vancomycin 1 hour before

Q406. A 35 year old gentleman has collapsed twice in the last month. He has a brother and uncle who died in their 20s of sudden cardiac death. An ECHO reveals features of HCOM and a 24 hour ECH shows several short runs of non sustained VT. How do you manage the non sustained VT?

1- None required

2- Amiodarone 200mg

3- Atenolol 100mg

**4- Implantable cardiovertor defibrillator**

5- Flecainide 100mg

Q407. A 40 year old male presents with shortness of breath and a headache. He is found to have a blood pressure of 200/115mmHg and on fundoscopy has retinal haemorrhages and papilledema. An ECG shows LVH. Heart sounds normal and chest is clear. What is the most appropriate management?

1- IV Sodium Nitroprusside

2- Ramipril

3- IV Labetalol

**4- Atenolol**

5- Methyldopa

Q408. A 23 year old present with palpitations intermittently. She is known to suffer from anxiety attacks. However on auscultation of the heart there is evidence of a late systolic murmur with a mid systolic click. It is worsened by the standing position. What is the most likely diagnosis?

**1- Mitral valve prolapse**

2- Normal variant

3- Atrial Myxoma

4- Mitral stenosis

5- Aortic Stenosis

Q409. A 20 year old male collapses at a night club. He is otherwise fit and well. There was a first aider on hand who saw the patient suddenly collapse whilst dancing. He states it was difficult to find a pulse when he had collapsed. An ECG shows a QT interval of 0.58. What is the most likely diagnosis?

1- Vasovagal episode

2- Substance Abuse

3- Jervell Lange Nielsen syndrome

4- HOCM

**5- Long QT syndrome**

Q410. A 70 year old female has had several syncopal episodes. On auscultation there is an ejection systolic murmur radiating to the carotids. What is the most likely diagnosis?

1- Simple Vasovagal Episodes

2- Arrhythmia

3- Hypertrophic cardiomyopathy

**4- Aortic stenosis**

5- Mitral regurgitation

Q411. A 45 year old male presents with palpitations. He had been drinking heavily the night before. His heart rate is about 140 bpm and is irregularly irregular. What is the most likely diagnosis?

1- Supraventricular tachycardia

2- Atrial flutter

3- Torsades de pointes

4- Ventricular tachycardia

**5- Paroxysmal atrial fibrillation**

Q412. In tricuspid regurgitation what waveform is prominent in the JVP?

1- c wave

2- y descent

3- x descent

4- a wave

**5- v wave**

Q413. Which of the following drugs is most likely to lead to a shortened QT interval

1- Bisoprolol

2- Amiodarone

3- Erythromycin

4- Amlodipine

**5- Digoxin**

Q414. What is a characteristic findings on ECG in hyperkalaemia?

1- Flattened T waves

2- Shortened QT interval

3- Bifid P waves

4- Delta Waves

**5- Tall, tented T waves**

Q415. In a patient with chest pain with some t wave flattening, which investigation will confirm an NSTEMI?

1- CK-MB

**2- Troponin I**

3- LDH

4- AST

5- Inflammatory markers

Q416. In heart failure, what leads to a shift to the right of the pressure volume curve?

1- Reduced compliance secondary to volume overload

**2- Increased Compliance secondary to volume overload**

3- Increased preload

4- Increased contractibility of the chamber

5- Reduced afterload

Q417. A 29 year old male presents with a history of intermittent palpitations. He is normally fit and well. He is a non smoker and takes little alcohol. These episodes can last for a few minutes to an hour. He is aware of his heart racing, it feels regular but very fast and he feels dizzy and short of breath. He has not noticed any triggering factors. There is no family history of any heart disease. Examination is normal. Which of the following is the most likely diagnosis?

1- Paroxysmal Atrial Fibrillation

2- Supraventricular Ectopics

**3- Paroxysmal Supraventricular Tachycardia**

4- Torsades de Pointes

5- Paroxysmal Ventricular Fibrillation

Q418. A 65 year old gentleman with previous valvular heart surgery presents with dyspnoea, ankle oedema and fatigue. On examination there is evidence of a raised JVP worsened by inspiration and has rapid x and y descents. There is also evidence of a pericardial knock and pulsatile hepatomegaly. What is the most likely diagnosis?

1- Restrictive cardiomyopathy

2- Hypertrophic obstructive cardiomyopathy

3- Dilated cardiomyopathy

**4- Constrictive pericarditis**

5- Pericardial effusion

Q419. A 65 year old gentleman attends the pre operative clinic. He is awaiting a knee replacement as he has severe osteoarthritis of his knee and hip. He has had a previous myocardial infarction and over the last few months has complained of what sounds like angina pain. Which of the following is useful initially in determining if there is evidence of myocardial ischaemia?

1- Exercise Tolerance Test

2- Coronary angiography

**3- Myocardial perfusion scan**

4- Echocardiogram

5- ECG

Q420. A 50 year old female presents with shortness of breath, fatigue and peripheral oedema. On examination she has a raised JVP, pitting oedema, hepatomegaly and ascites. An echo is organised and reveals globally thickened walls oncluding the interatrial septa with atrial dilatation but the ventricles are not dilated. There is an increased scintillation pattern (granular specklin g) . There is a normal ejection fraction. An ECG shows low voltage complexes. Given the most likely diagnosis, how else might it present?

1- Cardiac tamponade

**2- Embolic symptoms**

3- Liver failure

4- Renal failure

5- Myocardial infacrtion

Q421. A 65 year old woman during prep assessment is found to have a small pericardial effusion. She is asymptomatic. The rest of her examination, ECG and other investigations are normal. How do you manage this patient?

1- NSAIDs

2- Coronary Angiography

3- Furosemide

4- Pericardiocentesis

**5- Reassure**

Q422. A 52 year old gentleman is 5 days post STEMI when he starts to develop chest pain. It is pleurtic in nature and worse on lying down. He is pyrexial and generally unwell. On examination he is tachycardic and there is evidence of a pericardial friction rub. On ECG there is widespread ST elevation. What is the most likely diagnosis?

1- STEMI

2- Pulmonary embolism

**3- Dresslers syndrome**

4- Pneumonia

5- Cardiac tamponade

Q423. A 50 year old female presents with shortness of breath, fatigue and peripheral oedema. On examination she has a raised JVP, pitting oedema, hepatomegaly and ascites. An echo is organised and reveals globally thickened walls including the interatrial septa with atrial dilatation but the ventricles were not dilated. There is an increased scintillation pattern (granular specklin g) . There is a normal ejection fraction. An ECG shows low voltage complexes. What is the most likely diagnosis?

**1- Restrictive cardiomyopathy**

2- Dilated cardiomyopathy

3- Constrictive pericarditis

4- Arrhythmogenic right ventricular cardiomyopathy

5- Hypertrophic cardiomyopathy

Q424. A 50 year old female prents with shortness of breath, fatigue and peripheral oedema. On examination she has a raised JVP, pitting oedema, hepatomegaly and ascites. An echo is organised and reveals globally thickened walls oncluding the interatrial septa with atrial dilatation but the ventricles are not dilated. There is an increased scintillation pattern (granular specklin g) . There is a normal ejection fraction. An ECG shows low voltage complexes. Given the most likely diagnosis, which drug should she be advised to avoid?

**1- Digoxin**

2- Amiodarone

3- Bendroflumethiazide

4- Ramipril

5- Furosemide

Q425. A 52 year old gentleman is 5 days post STEMI when he starts to develop chest pain. It is pleurtic in nature and worse on lying down. He is pyrexial and generally unwell. On examinatio he is tachycardic and there is evidence of a pericardial friction rub. On ECG there is widespread ST elevation. Given the most likely diagnosis, what management should be initiated?

**1- NSAIDs**

2- IV heparin

3- Iv antibiotics

4- PCI

5- Thrombolysis

Q426. A 65 year old gentleman has an anterolateral myocardial infarction. He has primary PCI and a drug eluting stent is inserted. However 24 hours later he complains of further chest pain. There is ST elevation in leads II, III and aVf. Which of the following is the most likely diagnosis?

1- Emboli

2- Coronary artery spasm

**3- Rupture of atherosclerotic plaque**

4- Stent thrombosis

5- Ventricular Aneurysm

Q427. A 68 year old male presents with severe central chest pain. He is found to have ST elevation in the anterolateral leads. A primary PCI is performed and a stent inserted. He is then found to be hypotensive at 70/40 with a few bibasal crepitations. Heart sounds are pure. A central line is inserted and his pulmonary artery wedge pressure is 12 mmHg. Which of the following is the most appropriate management?

1- Repeat PCI

**2- IV fluids**

3- Inotropes

4- IV furosemide

5- Fluid Restriction

Q428. A 70 year old female has had several syncopal episodes. On auscultation there is an ejection systolic murmur radiating to the carotids. What is the most likely diagnosis?

1- Mitral regurgitation

**2- Aortic stenosis**

3- Hypertrophic cardiomyopathy

4- Arrhythmia

5- Simple vasovagal episodes

Q429. A 23 year old is brought to A+E following an assault where he was stabbed in the chest. He was complaining of chest pain. He is now tachycardic and hypotensive. He has muffled heart sounds, raised JVP and pulsus paradoxus. Respiratory examination is normal. What is the most likely diagnosis?

1- Constrictive pericarditis

**2- Cardiac tamponade**

3- Cardiogenic shock

4- Pulmonary embolus

5- Tension pneumothorax

Q430. A previous fit and healthy 45 year old gentleman presents to A and E after sudden onset of palpitations following a night out. When you examine the patient you find his pulse to be 140 bpm and irregular. His blood pressure is 130/80mmHg and his heart sounds are normal and chest is clear. An ECG confirms your suspicion of Atrial Fibrillation. What drug should be used for chemical cardioversion?

1- Atenolol

2- Amiodarone

3- Digoxin

4- Adenosine

**5- Flecainide**

Q431. A 66 year old male with a history of AF on aspirin and bisoprolol presents with symptoms of TIAs. An ECHO and a CT Head do not reveal any abnormalities. How would you manage this patient?

1- Nil

**2- Warfarin**

3- Clopidogrel

4- Digoxin

5- Carotid endarterectomy

Q432. A patient has just suffered a STEMI and is now found to be in complete heart block. What vessel is likely to have been involved?

1- Left marginal artery

2- Left anterior descending artery

**3- Right coronary artery**

4- Left circumflex artery

5- Left coronary artery

Q433. A 42 year old gentleman with Type 2 Diabetes Mellitus, hypertension and 20 a day smoker, attended A+E with severe crushing central chest pain, sweaty and nausea. His current medication is lisinopril, amlodipine and bendroflumethiazide. He looks diaphoretic, pale and anxious. There is nil else of note on examination. An ECG reveals ST Elevation in II, III and aVF. What is the next most appropriate step?

1- Thrombolysis

**2- Primary Percutaneous coronary intervention**

3- Await 12 hour troponin and ECG

4- Aspirin, clopidogrel + LMWH

5- Abciximab

Q434. A 40 year old female who is on long term steroids for Polymyalgia Rheumatica presents with sudden onset left hip pain. This is severe and she is unable to put any pressure on it. There is no history of trauma. On examination there is no obvious abnormality however there is a great reduction in left hip flexion and internal and external rotation. A hip x-ray reveals sclerosis of the femoral head. What is the most likely diagnosis?

**1- Avascular necrosis**

2- Impacted hip fracture

3- Pathological fracture

4- Osteoarthritis

5- Osteomyelitis

Q435. A 35 year old female with rheumatoid arthritis presents with pain and tightness behind of the left leg. On examination there is evidence of a swelling in the popliteal fossa of the left knee. What investigation should be organised?

1- D dimers

**2- Ultrasound of popliteal fossa**

3- MRI of knee

4- Routine bloods

5- Arthroscopy

Q436. A 40 year old male presents with painful fingers. On examination there is evidence of dactylitis and he is tender over his DIPs and pitting of his nails. His rheumatoid factor is negative. What is the most likely diagnosis?

1- Osteoarthritis

2- Pseudogout

3- Rheumatoid arthritis

4- SLE

**5- Psoriatic arthritis**

Q437. A 81 year old male with a history of hypertension and inferior MI is seen in the cardiology clinic due to worsening angina and heart failure and 2 syncopal episodes. He is found to have an ejection systolic murmur loudest at the apex and on listening to his chest he has findings in keeping with heart failure. His bloods are unremarkable. Which of the following is the most likely to be causing his syncopal episodes and worsening angina and heart failure?

1- Renal Failure

2- Atrial Fibrillation

3- Coronary Artery Disease

4- Mitral regurgitation

**5- Aortic Stenosis**

Q438. You are asked to review a 52 year old gentleman who has become suddenly unwell and hypotensive. He had an STEMI 2 days previously. On examination he has a pansystolic murmur lowest at the lower left sternal border and a raised JVP. Further investigation reveals a high right atrial pressure and low left atrial pressure. What is the most likely diagnosis?

1- Aortic Stenosis

2- Mitral regurgitation

3- Aortic regurgitation

**4- Tricuspid regurgitation**

5- VSD

Q439. A 28 year old male presents with shortness of breath on exertion. On examination he is very tall and thin with long fingers. On auscultation the chest is clear however you note an early diastolic murmur which is low pitched best heard at the aortic area and lower left sternal edge (louder in expiratio n) and a late diastolic murmur heard at the apex. What is the most likely diagnosis?

1- Mitral stenosis

**2- Aortic regurgitation**

3- Mitral Regurgitation

4- Mitral valve prolapse

5- Aortic stenosis

Q440. A 58 year old gentleman has severe central crushing chest pain for about half an hour which is finally relieved by GTN. There is evidence of ST depression in the anterolateral leads and his troponin is elevated. He is treated with aspirin, clopidogrel and LMWH. What is the next appropriate management?

1- Discharged with Outpatient cardiac clinic follow up

2- Exercise Tolerance Test

3- Coronary Angiography as an outpatient

4- Cardiac Rehabilitation

**5- Urgent coronary angiography as an inpatient**

Q441. A patient with central crushing chest pain associated with autonomic features has 1 mm of ST elevation in leads II,III and aVF. How do you manage this patient?

1- Heparin only

2- Repeat ECG

**3- Aspirin + clopidogrel +LMWH and repeat ECG**

4- PCI

5- Thrombolysis

Q442. A 65 year old male with type 2 diabetes mellitus presents with severe crushing central chest pain associated with autonomic features. This lasted for one hour before it was relieved by GTN spray. An ECG shows anterolateral ST depression and his troponin is elevated, He develops further chest pain at rest despite being commenced on aspirin, clopidogrel, atenolol and LMWH. An urgent coronary angiography is planned. What other management should be initiated?

1- None required

2- Streptokinase

**3- Abciximab**

4- Tenecteplase

5- IV heparin

Q443. Which of the following is a risk factor for the development of Torsades de pointes?

1- Hyperkalaemia

2- Hypermagnesaemia

**3- Hypothermia**

4- Hyponatraemia

5- Hypercalcaemia

Q444. A 72 year old gentleman with a history of ischaemic heart disease, has been unwell with diarrhoea and vomiting. He complains of intermittent palpitations and dizziness. He is brought to hospital and starts to complain of an episode and is found to have a broad complex tachycardia with the QRS complexes appearing to twist around the baseline. His blood pressure is 140/90 and GCS is 15. How would you manage this patient?

1- Atropine

2- Adrenaline

**3- IV Magnesium**

4- Adenosine

5- Amiodarone

Q445. A 24 year old female is 22 weeks pregnant. She attends an antenatal clinic appointment. She has been very well throughout her pregnancy and has no past medical history. On examination there is no evidence of oedema. Her blood pressure is 110/70 mmHg and her heart rate is 88 bpm. Auscultation reveals an ejection systolic murmur over the aortic area which radiates to the carotids and varies on posture changes. This was not evident at her previous visit and she is not complaining of chest pain, palpitations or shortness of breath. Her chest is clear.

1- Infective Endocarditis

2- Aortic Stenosis

3- Bicuspid Aortic Valve

4- Mitral Regurgitation

**5- Innocent murmur**

Q446. A 65 year old male is found incidentally to have an ejection systolic murmur. An Echo confirms aortic stenosis with a gradient of 80mmHg and left ventricular dysfunction. How should this patient be managed?

1- Anticoagulation

**2- Aortic valve replacement**

3- Monitored as an outpatient

4- Nil specific avoid vasodilators

5- Aortic valvuloplasty

Q447. Which of the following is associated with a the worst prognosis in those with aortic stenosis?

1- Left Ventricular Hypertrophy

2- Mild aortic regurgitation

3- Moderate aortic valve calcification

**4- Left Ventricular Failure**

5- Asymptomatic disease

Q448. A temporary single chamber pacing wire is being inserted for a patient with complete heart block. Where should the lead be positioned?

1- Left Ventricular Apex

2- Left Atrium

**3- Right Ventricle Apex**

4- Bundle of HIS

5- Right Atrium

Q449. A patient has taken an amitriptyline overdose. She is tachycardic and hypotensive and is having short runs of non sustained ventricular tachcardia. Her blood gases reveal a metabolic acidosis. In terms of the non sustained Ventricular tachycardia, what is the most appropriate management?

1- IV Magnesium

2- Implantable Defibrillator

**3- IV Sodium bicarbonate**

4- IV Amiodarone 900mg

5- IV Adenosine 6mg

Q450. A 55 year old man with poor dentition, has infective endocarditis. He presents with night sweats and lethargy to his e GP. Blood cultures are taken and grow Strep Viridans. Examination reveals splinter haemorrhages and a pyrexia of 37.8 C. On auscultation his chest is clear however there is evidence of a systolic murmur. Investigations revealed a Hb of 10.1 g/dL, WCC of 15.0 x109, an ESR of 101 and Acute Renal Failure. His ECG reveals a PR interval of 140 and an ECHO reveals vegetations on the mitral valve and mitral regurgitation. After 12 days of antibiotics intravenously, urgent surgical intervention is required for?

1- Large mobile vegetation on mitral valve

2- Continually high ESR

3- Systolic Murmur

4- Pyrexia

**5- Prolonged PR Interval**

Q451. A 70 year old gentleman has heart failure which is thought to be secondary to hypertension. His current medication is 40mg BD of furosemide, 4mg of perindopril and 100mg of spironolactone. He has recently attended A and E with an angina attack. He is referred to the cardiology clinic as he is having syncopal episodes. You review him at the clinic and He is found to be hypertensive at 175/105mmHg and have a heart rate of 101. There is evidence of bibasal crepitations and a systolic murmur loudest over the aortic area. A CXR was organised and revealed cardiomegaly and pulmonary oedema. You confirmed your suspicion of Aortic Stenosis by ordering an Echocardiography. Out of the following what is the the likely cause of this?

1- Infective Endocarditis

2- Bicuspid Aortic Valve

3- Congenital valve deformity

4- Rheumatic Fever

**5- Degenerative Aortic Stenosis**

Q452. A 74 year old man has a history of hypertension. He presents to A and E with a sudden onset of palpitations.He is tachycardic with at a rate of 140. An ECG was performed and revealed a narrow complex tachycardia with a rate of around 150 and a saw tooth pattern. The ECG showed which of the following rhythms?

1- Ventricular Tachycardia

2- Atrial Fibrillation

3- AV nodal re entrant tachycardia

**4- Atrial Flutter**

5- Atrioventricular re entrant tachycardia

Q453. A 63 year old woman has been referred for review at the cardiology clinic. She has a history of type 2 Diabetes mellitus and hypertension and is currently on ramipril, metformin and has recently been commenced on insulin. She has been suffering from SOB on mild exertion and angina. On examination she bibasal crackles and reversed splitting of the second heart sound. What ECG finding is likely to be seen?

1- Prolonged PR Interval

2- Bifid P waves

3- Right Bundle Branch Block

**4- Left Bundle Branch Block**

5- Prolonged QT interval

Q454. A 72 year old man has had several episodes of collapse and TIAs. He had suffered from an extensive Myocardial Infarction previously. The only finding on clinical examination is a displaced apex beat. An ECG revealed anterior ST elevation although he is currently pain free. What further investigation is the most appropriate for diagnosis of the underlying diagnosis?

**1- Cardiac MRI**

2- Transoesophageal echocragiogram

3- Echocardiogram

4- Coronary Angiography

5- CT head

Q455. A 42 year old gentleman with Type 2 Diabetes Mellitus, hypertension and 20 a day smoker, attended A and E with severe crushing central chest pain, sweaty and nausea. His current medication is lisinopril, amlodipine and bendroflumethiazide. He looks diaphoretic, pale and anxious. There is nil else of note on examination. An ECG reveals ST Elevation in II, III and aVF. What is the next most appropriate step?

1- Abciximab

2- Aspirin, clopidogrel and LMWH

3- Await 12 hour troponin and ECG

4- Thrombolysis

**5- Primary Percutaneous coronary intervention**

Q456. A 27 year old man who uses cocaine on a regular basis and who is a smoker presents with central crushing chest pain of 3 hours duration. He had been using cocaine prior to the onset of the chest pain. He is found to be hypertensive and tachycardic. An ECG revealed ST elevation of 3mm in I, II, aVL and V4 V6. What is the next step in the management?

1- Repeat ECG

2- Aspirin, Clopidogrel and LMWH

**3- Primary PCI**

4- Request Troponin

5- Thrombolysis

Q457. A 72 year old female has recurrent episodes of collapse over the last 12 months. She has a past medical history of hypertension and hypercholesterolaemia and her current medication is ramipril, bendroflumethiazide and simvastatin. You find her to be bradycardic with a heart rate of 40 bpm on examination and a blood pressure of 105/55 mmHg. on inspection of her JVP she has irregular cannon waves. The rest of her examination is unremarkable. What if the most likely diagnosis?

1- Sinus Bradycardia

2- Mobitz type 2 heart block

3- Mobitz type 1 heart block

4- Sick Sinus Syndrome

**5- Complete heart block**

Q458. A 40 year gentleman is concerned as his brother died whilst playing football following a sudden cardiac arrest. It was discovered that he had Hypertrophic Obstructive Cardiomyopathy on post mortem. How would you screen this gentleman?

1- Exercise Tolerance test

2- Cardiac MRI

**3- Trans oesophageal ECHO**

4- ECG at rest

5- Dobutamine Stress Echo

Q459. A 70 year old female has a past medical history of hypertension. she has had 2 syncopal episodes and was found to have an ejection systolic murmur and bibasal crackles and a blood pressure of 165/115 mmHg. An ECHO was arranged and revealed aortic stenosis. Cardiac catheterisation revealed a gradient of 50mmHg across the aortic valve. Which is the most contributory to your decision for referral for valve replacement?

1- Age of patient

**2- Presence of symptoms**

3- Evidence of heart failure

4- Gradient

5- Left Ventricular Hypertrophy

Q460. A 23 year old female has been referred to the cardiology clinic. She has been increasingly shortness of breath and can barely climb stair without becoming short of breath. She is found to be hypertensive. An ECHO revealed right atrial hypertrophy and raised right atrial pressure. Cardiac catheterisation was performed and revealed a higher than normal oxygen saturation in the right atrium and ventricle. What is the most likely diagnosis?

1- Atrial Septal Defect (Ostium primu m) 2- Pulmonary Hypertension

3- Patent ductus arteriosus

**4- Atrial Septal Defect (Ostium secundu m) 5- Ventricular septal defect**

Q461. A 70 year old man with Chronic Renal Impairment and Hypertension presents with chest pain and is found to have an acute anterolateral myocardial infarction. He is referred for PCI. 2 days later you are asked to review him as his legs appear dusky and his left big and second toe are blue and there is evidence of splinter haemorrhages on his toe nails. His BP is 150/90 mmHg and his pulse is regular and has a rate of 80 bpm. On auscultation his heart sounds are normal however there is evidence of a left femoral bruit.

1- Renal artery stenosis

2- Embolism from Femoral Artery

3- Contrast Nephropathy

4- Peripheral Vascular Disease

**5- Cholesterol embolism**

Q462. In a patient with chest pain, which of the following in the history or clinical examination is most useful in the diagnosis of dissecting aortic aneurysm?

1- Smoking

2- Hypertension

3- Upgoing plantars and lower limb weakness

4- Pericardial Rub

**5- History of sudden severe tearing chest pain radiating to the back**

Q463. A 62 year old woman undergoes thrombolysis for a myocardial infarction. After 48 hours you are asked to review here as she is complaining of shortness of breath and her saturations have dropped to 92 per cent. Her blood pressure is 100/65 mmHg and is tachycardic 110 bpm. On auscultation she has a systolic murmur, loudest at the apex, and bilateral crackles to mid zone. What is the likely cause for her deterioration?

**1- Papillary muscle rupture leading to mitral regurgitation**

2- Dresslers Syndrome

3- LV wall rupture

4- Left ventricular aneurysm

5- Acute VSD

Q464. When, according to evidence base, should Iib IIIa inhibitors be utilised?

1- Unstable Angina

2- Along with Thrombolysis

3- Pain free with ECG changes

4- Continued chest pain following thrombolysis

**5- NSTEMI and awaiting angiography**

Q465. A 50 year old gentleman presents with central chest pain with associated autonomic features. He looks grey and clammy and on auscultation his heart sounds are normal but there is bibasal crackles. His heart rate is 80 bpm and his blood pressure is 103/60 mm Hg. His ECG revealed ST elevation V1 to V4 and ST depression II, II and aVF. He is referred for Primary PCI. What is likely to be found at angiography?

1- 70 per cent stenosis of left anterior descending artery

2- Complete occlusion of right coronary artery

**3- Complete occlusion of left anterior descending artery**

4- 80 per cent stenosis of left circumflex artery

5- Vasospasm

Q466. A 23 year old male with type 1 diabetes mellitus is found collapsed at home. He is found to be in asystole by ambulance crew and attempts to resuscitate were continued for 30 minutes however he remained in asystole. Who is the most appropriate person to decide to stop resuscitation?

1- Medic on call

2- Partner

3- Parents

4- A and E consultant

**5- Resuscitation team leader**

Q467. A 60 year old presents with crushing central chest pain associated with autonomic features. An ECG shows STEMI with 2mm elevation in II, III and aVF. What coronary artery has been affected?

1- Left Main stem

2- Posterior Descending

3- Left anterior descending artery

4- Circumflex artery

**5- Right coronary artery**

Q468. A 60 year old woman has a history of PAF for which she is on warfarin and amiodarone, hypercholesterolaemia for which she takes simvastatin and hypertension on bendroflumethiazide and ramipril. She is suffering from recurrent UTIs and has been advised to drink cranberry juice. What is cranberry juice likely to interact with?

1- Ramipril

2- Amiodarone

3- Simvastatin

4- Bendroflumethiazide

**5- Warfarin**

Q469. A 78 year old man has a PMH of MI, Angina and Hypertension. He attends for pre op assessment for a hip replacement. He remains relatively fit and an ETT 2 years earlier had been negative. What other investigation would you organise for preoperative assessment?

1- Coronary Angiography

**2- Echocardiogram**

3- Dobutamine Stress ECHO

4- Repeat ETT

5- CXR

Q470. A 15 year old is brought to A and E following a collapse with palpitations. She has significant FH of sudden death including her mother. She has no PMH but has recently been prescribed antibiotics. She has a penicillin allergy. On examination there is nil remarkable. AN ECG is performed and shows a QT interval of 540ms. What is the likely diagnosis associated with her collapse?her collapse?

1- Lown Ganong Levine syndrome

**2- Congenital long QT syndrome**

3- Coarctation of aorta

4- Wolf Parkinson White

5- Lange Nielsen

Q471. A 70 year old female with heart failure on ramipril, furosemide and bisoprolol presents with increasing shortness of breath. What is the most appropriate management?

1- Add digoxin

2- Increase furosemide

**3- Add spironolactone**

4- Stop bisoprolol

5- Add ISMN

Q472. A 60 year old gentleman with angina is having increased shortness of breath on exertion. An ECHO shows normal LVF however an ETT is positive. What is the most appropriate management?

**1- Atenolol**

2- Perindopril

3- Isosorbide mononitrate

4- Nicorandil

5- Amlodipine

Q473. A 69 year old female with IHD has had 3 episodes of collapse. She states see felt dizzy, lost her vision and then she collapsed. She recovers from the episodes quickly and is very well in between. There is no evidence of seizure activity. What do you do next?

1- Echocardiography

2- ETT

**3- 24 hour ECG**

4- Coronary Angiography

5- CT Head

Q474. An elderly gentleman has a syncopal episode. He is found to have an ejection systolic murmur and an ECHO confirms Aortic Stenosis. In AS what indicates a poor prognosis?

1- LVH

2- Coexistent AR

3- Infective Endocarditis

**4- LVF**

5- Bicuspid Valve

Q475. A 35 year old with asthma and systemic sclerosis is found to have malignant hypertension with a BP of 220/130mmHg and evidence of retinal haemorrhages and pulmonary oedema on examination. How do you manage this patient immediately?

1- Ramipril

2- Atenolol

3- IV Sodium Nitroprusside

4- IV Labetalol

**5- Nifedipine**

Q476. A 63 year old lady is found to have a small pericardial effusion incidentally on ECHO. She is asymptomatic and she is haemodynamically stable. What is the next most appropriate step in her management?

**1- Reassure**

2- Pericardiocentesis

3- Coronary Angiography

4- Diagnostic tap

5- Cardiac catheterisation

Q477. A 56 year old male who has had an MI previously now presents with SOB and peripheral oedema and is found to be in heart failure. A beta blocker has been commenced. What beta blocker is the most appropriate in heart failure?

**1- Bisoprolol**

2- Metoprolol

3- Atenolol

4- Sotalol

5- Propranolol

Q478. What s the best indicator of the severity of aortic stenosis?

1- Co Existence of AR

2- ECG changes

3- Character of apex beat

4- Intensity of murmur

**5- Character of second heart sound**

Q479. What characteristic when described with chest pain is most indicative of myocardial ischaemia?

1- Shortness of Breath

2- Relief with GTN

**3- Radiation to jaw**

4- Palpitations

5- Light Headed

Q480. A 60 year old man is found to be in AF. It is unknown for how long. What will be useful in rate control but will not lead to reversion to sinus rhythm?

1- Flecainide

**2- Digoxin**

3- Amiodarone

4- Adenosine

5- Sotalol

Q481. What is the equation for ejection fraction?

**1- EF equals [end diastolic volume (ED V) - end systolic volume (ES V) ]/EDV**

2- EF equals [end diastolic volume (ED V) - end systolic volume (ES V) ]/ESV

3- EF equals [end diastolic volume (ED V) end systolic volume (ES V) ]/HR

4- EF equals [heart rate (H R) × end diastolic volume (ED V) ]/end systolic volume (ES V) 5- ~EF equals [heart rate (H R) × end systolic volume (ES V) ]/end diastolic volume (ED V)

Q482. What investigation is utilised to screen first degree relatives with HOCM?

1- Genetic screening

2- Nil required

3- MRI of heart

**4- Echocardiography**

5- CT of Heart

Q483. What valvular abnormality is most associated with Ankylosing Spondylitis?

1- Tricuspid Regurgitation

2- Mitral regurgitation

3- Aortic stenosis

**4- Aortic regurgitation**

5- Mitral stenosis

Q484. A 68 year old gentleman who has previously suffered an MI presents with collapse. There was no presyncopal symptoms. On examination there was a displaced apex beat an no focal neurology. An ECG revealed ST elevation in the anterior leads , he was pain free. What is the most likely diagnosis?

**1- STEMI**

2- Vasovagal Episode

3- Ventricular tachycardia

4- Seizure

5- TIAs

Q485. A patient with intermittent palpitations has a 24 hour ECG tracing. What would you worry about the most if it was observed on this tracing?

**1- Supraventricular tachycardia**

2- Ventricular Ectopics

3- Bradycardia overnight

4- Supraventricular Ectopics

5- Mobitz type 1 atrioventricular block

Q486. A 19 year old patient presents with palpitations and light headedness. She was previously commenced on a beta blocker for this as an ECG revealed a short PR interval and Q waves in lead II, III and aVF. In the long term, what is the most appropriate management?

1- Amiodarone

2- Increased does of beta blocker

**3- Radio frequency ablation**

4- Digoxin

5- Verapamil

Q487. A 66 year old male with a history of AF on aspirin and bisoprolol presents with symptoms of TIAs. An ECHO and a CT Head do not reveal any abnormalities. How would you manage this patient?

1- Nil

2- Digoxin

3- Carotid endarterectomy

**4- Warfarin**

5- Clopidogrel

Q488. What effect do class 1c agents have on the heart?

1- Affect the SA node

2- Lengthen the action potential

3- Slow transmission at the AV node

4- Shorten the action potential

**5- Little effect on the action potential**

Q489. An 80 year old female collapsed whilst out shopping. A first aider was on the scene who stated he could not find a pulse for the first few seconds. On examination there was nil of note and an ECG is normal. A 24 hour tape is organised and is normal except for a few ectopics. What is the most likely diagnosis?

1- Complete heart block

2- Transient Tachyarrhythmia

3- Vasovagal episode

**4- Carotid Sinus Hypersensitivity**

5- Sick sinus syndrome

Q490. A 36 year old female has been unwell for several days with a viral illness. She then developed chest pain and shortness of breath. On examination she is hypotensive and tachycardic. There is bibasal crackles. AN ECG reveals non specific ST\_T changes and bloods revealed raised inflammatory markers and a raised Troponin I. ECHO reveals dilated and hypokinetic chambers.. What is the most likely diagnosis?

1- Acute Mitral regurgitation

2- STEMI

3- Infective endocarditis

**4- Myocarditis**

5- Pericarditis

Q491. A 20 year old male collapses. On arrival to A and E he is hypotensive with a HR of about 180 bpm. An ECG is performed and shows a regular narrow complex tachycardia, terminated by adenosine. A baseline ECG reveals a shortened PR interval with a slurred QRS complex and delta wave. What is the most likely diagnosis?

1- Ventricular tachycardia

**2- Wolff Parkinson White syndrome**

3- Paroxysmal Atrial Fibrillation

4- Substance Abuse

5- Lown Ganong Levine syndrome

Q492. A 40 year old man presents with severe chest pain which is radiating to his back. He looks clammy and pale. He has unequal blood pressures in the arms and there is evidence of an aortic regurgitation murmur. His ECG shows small QRS complexes. What is the most likely diagnosis?

1- Infective Endocarditis

2- STEMI

**3- Aortic dissection**

4- Pericarditis

5- Patent Ductus Arteriosus

Q493. A 58 year old man who is a heavy smoker presents with severe epigastric pain radiating to his jaw. On examination he is bradycardic and hypotensive and an ECG reveals ST elevation in leads II, III and aVF. What diagnosis fits best with this clinical picture?

1- Pancreatitis

**2- Inferior STEMI**

3- Anterolateral STEMI

4- Unstable angina

5- Inferior NSTEMI

Q494. What auscultatory findings would you expect to find with a left bundle branch block?

1- Normal first and second heart sounds

2- Fixed splitting of the 2nd heart sound

3- Reversed splitting of the 2nd heart sound and loud first heart sound

4- Normal 2nd heart sound and soft first Heart sound

**5- Reversed splitting of the 2nd heart sound**

Q495. A 28 year old male has been found to be hypertensive at 190/85 on several occasions and he has been referred and is investigated further. There is a drop of 60mmHg systolic blood pressure from the right brachial to the right femoral. What is the likeliest diagnosis?

1- AS

**2- Coarctation of aorta**

3- Tetralogy of Fallot

4- Patent ductus arteriosus

5- HOCM

Q496. What is the mechanism of action of clopidogrel?

1- Blocks prostaglandin production

**2- Blocks Platelet ADP Receptors**

3- Glycoprotein IIb/IIIa receptor antagonist

4- Potentiates factor X

5- Potentiates antithrombin

Q497. A patient who 2 days previously had suffered a STEMI is suffering from acute SOB. On examination there is bilateral crackles to mid zones and a pan systolic murmur, loudest at the apex. What is the most likely diagnosis?

**1- Acute mitral regurgitation**

2- Acute tricuspid regurgitation

3- Aortic Stenosis

4- Ventricular septal defect

5- Ventricular rupture

Q498. A 50 year old gentleman is on warfarin for AF with an INR of 2.0. He is planning to undergo a tooth extraction, how would you manage his warfarin?

**1- Maintain warfarin at the therapeutic dose**

2- Stop warfarin and convert to LMWH until after procedure

3- Convert to aspirin

4- Stop warfarin and convert to UFH until after procedure

5- Stop warfarin for 5 days before

Q499. A 20 year old man, whose father died of a cardiac arrest at 32, is admitted to A and E following a collapse whilst playing football and taking some minutes to recover. A similar episode had occurred previously whilst playing squash. There is nil of note on examination and blood results are normal however you note he has a QT interval of 0.52secs on his ECG. He is also found to have paroxysmal Atrial Fibrillation on further investigation with a 24 hour tape. What is the drug of choice for rhythm control in this patient?

1- Verapamil

**2- Atenolol**

3- Amiodarone

4- Adenosine

5- Flecainide

Q500. A previous fit and healthy 45 year old gentleman presents to A and E after sudden onset of palpitations following a night out. When you examine the patient you find his pulse to be 140 bpm and irregular. His blood pressure is 130/80mmHg and his heart sounds are normal and chest is clear. An ECG confirms your suspicion of Atrial Fibrillation. What drug should be used for chemical cardioversion?

1- Amiodarone

2- Adenosine

3- Digoxin

**4- Flecainide**

5- Atenolol

Q501. A 40 year old gentleman presents following several syncopal episodes over the last 6 months. He has congenital myotonic dystrophy with increasing muscle weakness and tone and frontal balding. On examination there is nothing remarkable. What changes on the ECG may you see commonly?

1- RBBB

**2- Delta Wave**

3- LBBB

4- Prolonged QT interval

5- Prolonged PR Interval

Q502. A 45 year old female has paroxysmal AF for which she was on warfarin for 4 weeks before a successful DC cardioversion. An ECHO was normal. After successful DC cardioversion how long should treatment with warfarin continue?

1- 3 months

2- Stop immediately

**3- 4 weeks**

4- 6 months

5- Indefinitely

Q503. A 60 year old who is on Lithium for bipolar disorder is found to be hypertensive by her GP is to be commenced on anti hypertensive therapy. What anti hypertensive would you prescribe to limit the risk of lithium toxicity?

1- Ramipril

2- Amlodipine

**3- Atenolol**

4- Losartan

5- Bendroflumethiazide

Q504. A 60 year old woman is brought into A and E, she looks unwell. She had had been complaining of a sudden onset of palpitation and then collapsed. On examination she looks pale and sweaty, is drowsy and her blood pressure is 80/50mmHg. An ECG is performed and shows Torsades de Pointes. What following drug is not known to be associated with Torsades de Pointes?

**1- Verapamil**

2- Digoxin

3- Erythromycin

4- Risperidone

5- Sotalol

Q505. A 50 year old female presents with shortness of breath on exertion. She has completed chemotherapy for breast cancer approximately 6 months ago. On examination her apex beat is displacede and there is evidence of a 3rd heart sound and bibasal crackles. A CXR is requested and reveals cardiomegaly and bilateral small pleural effusions, interstitial oedema and upper lobe diversion. What chemotherapy may have lead to the heart failure?

1- Cisplatin

**2- Doxorubicin**

3- Bleomycin

4- Vincristine

5- Tamoxifen

Q506. A 50 year old woman presents with left arm and leg weakness of 5 hours duration. She is known to have AF. She is hypertensive but her AF is rate controlled with a HR of 80. Neurological exam confirms 4/5 weakness but there is nil else remarkable, bloods are normal and CT head shows no evidence of haemorrhage. As there is no evidence of haemorrhage on CT, what anti platelet or anticoagulant are yo going to prescribe?

1- Thrombolysis

2- None

3- IV Heparin

4- Warfarin to be commenced covered by LMWH

**5- Aspirin**

Q507. A 55 year old gentleman presents to A and E following a collapse at work. He has a past medical history of hypertension managed with perindopril and is a smoker of 30 a day. On examination he has a left sided hemiplegia. Other examination findings and blood results are unremarkable. A CT head is organised and no intracerebral haemorrhage is seen. How long after presentation is thrombolysis appropriate to?

1- 24 hours

2- 6 hours

3- 12 hours

**4- 4 1/2 hours**

5- 3 hours

Q508. A 25 year old female is referred due to palpitations. On examination her heart rate and blood pressure are normal, chest is clear however there is splitting of the first heart sound. On an ECG what is the first heart sound associated with?

1- Q wave

2- T wave

3- S wave

4- P wave

**5- R Wave**

Q509. A 20 year old female is referred to the clinic due to palpitations which sometimes occur on exertion and are associated with nausea and light headedness. Her examination is unremarkable as are her blood results. What is the next most appropriate investigation for diagnosis?

1- 24 hour ECG

2- Tilt Table Test

3- Continuous loop recorder

**4- 12 lead ECG**

5- TFTs

Q510. A 55 year old with dental caries and an abscess on his foot for which he has been given flucloxacillin by his his GP. He presents to A and E with fatigue. On examination he looks pale and you find evidence of splinter haemorrhages, a systolic murmur loudest in the aortic area and a clear chest. An ECHO is performed and confirms Infective Endocarditis and Blood cultures n 3 separate occasions grew Streptococcus Viridans. What antibiotic should be prescribed in addition to IV benzylpenicillin?

1- Co amoxiclav

2- Vancomycin

**3- Gentamicin**

4- Rifampicin

5- Ceftriaxone

Q511. A 40 year old man with new onset AF and no evidence of structural heart disease on ECHO, was commenced on warfarin and has an INR of 2.5. He is then successfully cardioverted 6 weeks later. How long after successful cardioversion should the warfarin be continued?

1- 6 months

**2- 4 weeks**

3- Indefinited

4- Stop Immediately

5- 3 months

Q512. A 73 year old woman has a history of myocardial infarction and poor exercise tolerance due to SOB attends for preoperative assessment for a hip replacement. Her current medication is aspirin, ramipril and simvastatin. There is nil of note on examination and her HR and BP are within normal parameters. Blood results are normal. How would you assess her cardiovascular status further for suitability for surgery?

1- Cardiac angiography

2- Exercise Tolerance Test

3- Dobutamine stress echo

4- Echocardiogram

**5- ECG**

Q513. With moderate to severe hypothermia what would you characteristically find on an ECG?

**1- J waves**

2- Complete Heart Block

3- Tall tented T waves

4- QT prolongation

5- Shortened PR interval

Q514. A 62 year old male is brought to A and E following a collapse. A first aider was on the scene and stated he was pulseless for a few seconds. He states he has been suffering from intermittent palpitations. What is the most likely diagnosis?

1- Supra ventricular Tachycardia

2- Ventricular cardia

3- Vasovagal episodes

4- Paroxysmal atrial fibrillation

**5- Sick sinus syndrome**

Q515. A 65 year old male is found incidentally to have an ejection systolic murmur. An Echo confirms aortic stenosis with a gradient of 80mmHg and left ventricular dysfunction. How should this patient be managed?

1- Monitored as an outpatient

2- Anticoagulation

3- Nil specific avoid vasodilators

4- Aortic valvuloplasty

**5- Aortic Valve Replacement**

Q516. A 39 year old female who is being treated for hypertension and has recently commenced ramipril presents with sudden onset shortness of breath. His is has a regular pulse but is tachycardic and his heart sounds are pure. On auscultation of the chest there is bibasal crackles. What is the most likely underlying cause?

1- Atrial Fibrillation

2- Ischaemic heart disease

3- Hypertension

4- Silent STEMI

**5- Renal artery stenosis**

Q517. What investigation should be utilised to confirm an intraventricular thrombus following an Echo?

1- Cardiac MRI

2- Transesophageal echo

**3- Transthoracic echo**

4- Persistent ST elevation on ECG

5- Cardiac CT

Q518. If a patient suffers a stroke following a DVT, what is the most likely cardiac abnormality?

**1- Patent foramen ovale**

2- Nil

3- Atrial septal defect

4- Ventricular septal defect

5- Atrial fibrillation

Q519. A 60 year old woman has a history of PAF for which she is on warfarin and amiodarone, hypercholesterolaemia for which she takes simvastatin and hypertension on bendroflumethiazide and ramipril. She is suffering from recurrent UTIs and has been advised to drink cranberry juice. What is cranberry juice likely to interact with?

1- Simvastatin

2- Ramipril

**3- Warfarin**

4- Bendroflumethiazide

5- Amiodarone

Q520. A 58 year old man who is a heavy smoker presents with severe epigastric pain radiating to his jaw. On examination he is bradycardic and hypotensive and an ECG reveals ST elevation in leads II, III and aVF. What diagnosis fits best with this clinical picture?

1- Unstable angina

2- Pancreatitis

**3- Inferior STEMI**

4- Anterolateral STEMI

5- Inferior NSTEMI

Q521. A 70 year old man with Chronic Renal Impairment and Hypertension presents with chest pain and is found to have an acute anterolateral myocardial infarction. He is referred for PCI. 2 days later you are asked to review him as his legs appear dusky and his left big and second toe are blue and there is evidence of splinter haemorrhages on his toe nails. His BP is 150/90 mmHg and his pulse is regular and has a rate of 80 bpm. On auscultation his heart sounds are normal however there is evidence of a left femoral bruit.

1- Renal artery stenosis

2- Peripheral vascular disease

3- Embolism from femoral artery

**4- Cholesterol embolism**

5- Contrast nephropathy

Q522. A 16 year old female presents generally unwell with a pyrexia and painful swollen joints. She has recently suffered from a sore throat. On examination there is evidence of synovitis in the knees and ankles although on previous days it was evident in the wrists and elbows. There is abnormal involuntary movements and on cardiovascular exam there is evidence of aortic regurgitation. She also had had evidence of a maculopapular rash. Her ESR and CRP were elevated. What is the most likely diagnosis?

1- Infective Endocarditis

2- Henoch Schönlein Purpura

3- Stills Disease

4- Scarlet fever

**5- Rheumatic fever**

Q523. Which of the following pulse characters is most typical of left ventricular failure?

1- Pulsus paradoxus

2- Collapsing pulse

3- Small volume pulse

4- Jerky pulse

**5- Pulsus alternans**

Q524. A 22 year old female has been suffering from intermittent palpitations. She states these occur about four times a year and she is finding them increasingly troublesome. A 24 hour ECG is organised and she is found to have paroxysmal atrial fibrillation. She is fit and well otherwise. She was commenced on a beta blocker however could not tolerate the side effects as she was having vivid dreams which were disturbing her sleep. Which of the following could be utilised as an alternative?

1- Sotalol

2- Digoxin

3- Amiodarone

**4- Flecainide**

5- Verapamil

Q525. In a patient with a small VSD which of the following would be found?

1- Left axis deviation on ECG

2- Markedly increased pulmonary vasculature on CXR

**3- Harsh pansystolic murmur at lower left sternal edge**

4- LVH on ECG

5- Cardiomegaly on CXR

Q526. In a small ventricular septal defect, what would you expect to happen to oxygen saturations?

**1- O2 saturation higher in right ventricle than right atrium**

2- O2 saturation higher in right ventricle than left ventricle

3- O2 saturation lower in right ventricle than right atrium

4- Nil

5- O2 saturation higher in right atrium than left atrium

Q527. A 35 year old female presents with shortness of breath on exertion, fatigue and syncope. On examination there is a continuous machinery murmur best heard under the left clavicle. Her pulse is bounding. A CXR is consistent with pulmonary oedema and there is evidence of LVH on ECG. What is the most likely diagnosis?

1- Mitral regurgitation

**2- Patent ductus arteriosus**

3- Ventricular septal defect

4- Coarctation of the aorta

5- Aortic stenosis

Q528. In a STEMI secondary to cocaine use what is the underlying mechanism which leads to myocardial ischaemia and infarction?

1- Atherosclerotic plaque rupture

2- Tachycardia

3- Thrombosis

4- Embolism

**5- Coronary artery spasm**

Q529. A 67 year old male presents to his GP with a cold right hand. He has had a previous coronary artery bypass graft 3 years ago. Over the last few months he has noticed his hand being cold and painful. It occurs at rest and is not worsened by any particular movements. On examination his capillary refill time is slowed to about 3 seconds. The hand is cold and the radial pulse is impalpable. The rest of the examination is normal. He has not had an angina attack for some time. What is the most likely cause?

1- Ulnar artery trauma

2- Embolism

3- Raynaud's Phenomenon

4- Atherosclerosis of the radial artery

**5- Radial artery trauma**

Q530. What is the main ECG found in hypocalcaemia?

1- ST depression

2- Peaked P waves

**3- Prolonged QT**

4- Shortened QT interval

5- Tall tented T waves

Q531. Which of the following is the most common complication of coronary angiography?

1- Cholesterol Embolisation

2- Contrast nephropathy

**3- Vascular complications**

4- Stroke

5- Myocardial Infarction

Q532. A 42 year old male is found to be hypertensive with a blood pressure of 190/100 mmHg. He is otherwise fit and well and there is nil of note on examination. Bloods reveal normal renal function however there is evidence of hypokalaemia, elevated bicarbonate and both renin and aldosterone levels are increased. A 24 hour urinary cortisol fell within the normal range. What is the most likely diagnosis?

**1- Renal artery fibromuscular dysplasia**

2- Phaeochromocytoma

3- Conn's syndrome

4- Cushing's syndrome

5- Glomerulonephritis

Q533. A 30 year old female who is 28 weeks pregnant presents with palpitations. On examination you find her heart rate to be 180. She is placed on a cardiac monitor which reveals a broad complex tachycardia. She is hypotensive, she feels short of breath and on auscultation of the chest there is evidence of bibasal crackles. How should this patient be managed?

1- IV adenosine

2- Non synchronised DC cardioversion

3- IV amiodarone

4- IV verapamil

**5- Synchronised DC cardioversion with monitoring of foetal heart rate**

Q534. A 65 year old gentleman with hypertension and peripheral vascular disease has recently had a transfemoral angiogram. He presents with painful lesions on his shins and has noticed his toes blue and painful. On examination there is also evidence of livedo reticularis. Bloods reveal acute renal failure and an eosinophila. Platelet count and coagulation profile are normal. Cardiovascular examination is normal. Which of the following is the most likely cause?

**1- Cholesterol Embolisation**

2- Emboli secondary to Atrial Fibrillation

3- Calciphylaxis

4- Antiphospholipid Syndrome

5- Peripheral Vascular disease

Q535. A 64 year old gentleman is brought to A+E with sudden onset of shortness of breath. He looks unwell and cyanosed. He has a past medical history of hypertension, ischaemic heart disease and mitral valve prolapse. On examination he has bilateral crepitations to his midzones and his oxygen saturations are 92%. He is tachycardic and hypotensive. There is evidence of an elevated JVP and peripheral oedema. You think you can hear a systolic murmur. A Chest X-ray reveals "bat wing" oedema but no cardiomegaly. An ECG shows sinus tachycardia but nil ST changes.

1- Inferior Myocardial Infarction

2- Myocarditis

3- Penumonia

**4- Acute mitral regurgitation**

5- Infective Endocarditis

Q536. A 42 year old male presents with fatigue, fever, night sweats and weight loss. He has been recently unwell with what he presumed was a viral infection. On examination there is evidence of cervical lymphadenopathy. You also noted quiet heart sounds and a pericardial rub. He is tachycardic. There is evidence of hepatosplenomegaly. Bloods reveal a pancytopenia. An Echo confirms a pericardial effusion. Which of the following is the most likely diagnosis?

**1- Lymphoma**

2- Coxsackie B viral infection

3- Idiopathic

4- Tuberculosis

5- Acute myocardial infarction

Q537. A 22 year old male presents following an episode of syncope. There is a family history of sudden cardiac death. An ECG reveals an incomplete right bundle branch block and coved ST elevation in anterior precordial leads. Which of the following is the most likely diagnosis?

1- Hypertrophic Cardiomyopathy

2- Romano-Ward Syndrome

**3- Brugada syndrome**

4- Jervell and Lange-Nielsen syndrome

5- Wolff-Parkinson-White Syndrome

Q538. A 65 year old male has a history of ischaemic heart disease and mitral regurgitation. He undergoes insertion of a permanent pacemaker for sick sinus syndrome. A few hours later you are called as he has become agitated and very short of breath. On examination he is tachycardic, hypotensive and tachypnoeic. His heart sounds are quiet and his hands are cold and clammy and there is evidence of a raised JVP and bibasal crackles. An ECG shows small QRS complexes. Which of the following is the most likely diagnosis?

1- Pericarditis

2- Acute worsening of mitral regurgitation

3- Myocardial Infarction

4- Aortic Dissection

**5- Cardiac tamponade**

Q539. A 72 year old female has a permanent pacemaker for complete heart block. She then presents with palpitations and shortness of breath and is found to be in fast atrial fibrillation. She is rate controlled and warfarin is commenced. It is decided that she should have DC cardioversion. In regards to this, which of the following is true?

1- No extra precautions required

2- Removal of pacemaker, then reinsertion following cardioversion

**3- During cardioversion pads placed 12-15cm away from permanent pacemaker, pacemaker and lead function check immediately following procedure and 4-6 weeks after**

4- Cardioversion is contraindicated

5- During cardioversion pads placed 12-15cm away from permanent pacemaker, nil else required

Q540. A 68 year old female attends A+E with frank bleeding per rectum. A Sigmoidoscopy reveals bleeding from an angiodysplastic lesion. Which valvular abnormality is most likely to be present?

1- Mitral Regurgitation

2- Aortic Regurgitation

**3- Aortic Stenosis**

4- Tricuspid Regurgitation

5- Mitral Stenosis

Q541. A 29 year old female who was on methadone dies suddenly whilst out running. Which of the following is the most likely cause?

1- SVT

2- Intracranial Haemorrhage

**3- Prolonged QT**

4- Methadone overdose

5- VF

Q542. A 50 year old man was admitted with central crushing chest pain. He is a smoker and is on ramipril fro hypertension which has not been well controlled. He is found to have ST depression in leads I, II, aVL, V4 V6 and his 12 hour troponin was 1.0. He underwent angiography and stent insertion. Three days later he is complaining of the same crushing central chest pain. A repeat ECG showed the same ST depression. Which enzyme should be measured to assess if there is further damage to the myocardium?

1- LDH

**2- CKMB**

3- Troponin T

4- Troponin I

5- AST

Q543. A patient has just suffered a STEMI and is now found to be in complete heart block. What vessel is likely to have been involved?

1- Left marginal artery

2- Left circumflex artery

**3- Right coronary artery**

4- Left anterior descending artery

5- Left coronary artery

Q544. A 26 year old patient is found incidentally to have a harsh pansystolic murmur at the lower left sternal edge. He is asymptomatic and both CXR and ECG are normal. What is the most likely diagnosis?

1- Mitral regurgitation

2- Atrial septal defect

3- Aortic atenosis

4- Patent ductus arteriosus

**5- Ventricular septal defect**

Q545. A patient is diagnosed with infective endocarditis. Which of the following requires urgent surgical intervention?

1- Mobile vegetation

**2- Prolonged PR interval**

3- Pyrexia and raised ESR despite antibiotic therapy

4- Systolic murmur

5- Shortened PR interval

Q546. A 45 year old female presented to her GP with a few weeks history of headache. She was found to have a blood pressure of 215/110. She states she is otherwise feeling well with no associated features and is generally in good health and is on no regular medications. There is no worrying features regarding her headache. She is a smoker and is overweight. There is no family history of any renal disease. On examination she has a BMI of 35 although there was no evidence of striae. Her heart rate was 92 bpm and heart sounds normal.

1- Phaeochromocytoma

2- Glomerulonephritis

3- Cushing's syndrome

**4- Essential Hypertension**

5- Malignant hypertension

Q547. What is the most likely cause from the following to lead to cyanosis in the newborn within the first 24 hours?

1- Transposition of the great vessels

2- Eisenmenger syndrome

3- Patent Ductus Arteriosus

**4- ASD**

5- Tetralogy of Fallot

Q548. When observing a JVP, which of the following would lead to prominent v waves?

1- Constrictive pericarditis

2- Pulmonary Regurgitation

**3- Tricuspid regurgitation**

4- Cardiac Tamponade

5- Pericardial Effusion

Q549. A 16 year old female presents generally unwell with a pyrexia and painful swollen joints. She has recently suffered from a sore throat. On examination there is evidence of synovitis in the knees and ankles although on previous days it was evident in the wrists and elbows. There is abnormal involuntary movements and on cardiovascular exam there is evidence of aortic regurgitation. She also had had evidence of a maculopapular rash. Her ESR and CRP were elevated. What is the most likely diagnosis?

1- Infective Endocarditis

2- Scarlet fever

3- Henoch Schönlein Purpura

4- Still's Disease

**5- Rheumatic fever**

Q550. After cardioversion for AF, which of the following suggests there is a good chance of maintaining sinus rhythm?

1- Previous successful cardioversions

2- Left ventricular dysfunction

**3- Duration of AF less than 6 months**

4- Left atrium enlarged

5- Young age

Q551. If a patient suffers a stroke following a DVT, what is the most likely cardiac abnormality?

1- Nil

2- Ventricular Septal Defect

3- Atrial Septal Defect

**4- Patent foramen ovale**

5- Atrial Fibrillation

Q552. If there is a right sided aortic arch, what cardiac abnormality may be present?

1- Transposition of the great vessels

2- Coarctation of the aorta

**3- Tetralogy of Fallot**

4- Dextrocardia

5- Bicuspid Aortic Valve

Q553. In which of the following situations would you insert a temporary pacing wire?

1- Asymptomatic Complete heart block

2- Nocturnal 3 seconds pauses

3- Mobitz type I block

4- First degree heart block following a STEMI

**5- Mobitz II AV block following a STEMI**

Q554. An ETT shows J point ST depression of approximately 1 mm. What treatment should be initiated?

1- Referral for Angiography

2- Repeat ETT

3- Commence beta blockers

4- Commence aspirin

**5- Nil**

Q555. What is an absolute contraindication to thrombolysis?

1- Family history of haemophilia

**2- Intracerebral Haemorrhage**

3- Previous history of TIAs

4- Heartburn

5- Head injury over one year ago

Q556. A patient with central crushing chest pain associated with autonomic features has 1 mm of ST elevation in leads II,III and aVF. How do you manage this patient?

1- Repeat ECG

2- Thrombolysis

3- PCI

4- Heparin only

**5- Aspirin and clopidogrel and LMWH and repeat ECG**

Q557. Which of the following drug is not associated with a survival benefit in congestive cardiac failure?

1- Spironolactone

**2- Digoxin**

3- Nitrates and hydralazine

4- Ramipril

5- Carvedilol

Q558. If a patient presents with a broad complex tachycardia with haemodynamic compromise, how would you manage this?

**1- Amiodarone**

2- Verapamil

3- Atenolol

4- Sotalol

5- Flecainide

Q559. What organism is likely to be responsible for an infective endocarditis in a patient without a prosthetic valve?

1- Staph. aureus

**2- HACEK group**

3- Staph. epidermidis

4- Strep. bovis

5- Strep. viridans

Q560. A 42 year old female with rheumatoid arthritis presents with dyspnoea, fatigue and ankle swelling. An ECG reveals 2:1 heart block and an echo is performed and reveals ventricular wall thickening with granular sparkling of left ventricle and dilated atria. What is the most likely diagnosis?

1- Dilated cardiomyopathy

**2- Cardiac amyloid**

3- Pericarditis

4- Restrictive cardiomyopathy

5- Hypertrophic cardiomyopathy

Q561. Which cardiac abnormality requires antibiotic prophylaxsis for infective endocarditis before a dental treatment?

1- Atrial septal defect

2- Aortic Regurgitation

**3- None**

4- Patent Foramen Ovale

5- Aortic Stenosis

Q562. If a patient is found to have a broad complex tachycardia, which feature would suggest this was an SVT with aberrant conduction rather than a ventricular tachycardia?

1- Not slowed by carotid sinus massage

2- Capture beats

3- Fusion Beats

**4- Slowed by adenosine**

5- PMH of hypertension

Q563. An ECG shows regular broad complex tachycardia. There was evidence on the ECG of one fusion and one capture beat. What is the most likely diagnosis?

1- Atrial fibrillation

2- Atrial flutter

3- Ventricular fibrillation

**4- Ventricular Tachycardia**

5- Supraventricular tachycardia with aberrant conduction

Q564. A 35 year old male with Wolff Parkinson White syndrome presents palpitations. His pulse is irregularly irregular and he is hypotensive. An ECG reveals an irregular rhythm with no p waves. How would you manage this patient?

1- Atenolol

**2- DC Cardioversion**

3- Amiodarone

4- Digoxin

5- Verapamil

Q565. What treatment should be utilised in maintaining the patency of a PDA before surgery?

1- Prostaglandin inhibitor

2- Nil required

**3- Prostaglandin E1 administration**

4- Ibuprofen

5- Indometacin

Q566. What is true in regards to medication for those with Left ventricular dysfunction?

**1- Beta blocker reduces mortality**

2- Furosemide leads to reduced mortality

3- Nitrates and hydralazine has no survival benefit

4- Digoxin has no symptomatic benefit

5- Spironolactone produces symptomatic improvement but no mortality benefit

Q567. A 72 year old male presents with central crushing chest pain. His ECG reveals ST elevation of 2mm in leads I, aVL and V4-V6. How would you manage this patient.

1- Thrombolysis

2- Aspirin

3- IV heparin

4- Aspirin, clopidogrel and LMWH

**5- Primary PCI**

Q568. Which of the following cardiac abnormalities is most susceptible to the development of infective endocarditis?

1- Mitral Stenosis

**2- Aortic regurgitation**

3- Atrial septal defect

4- Aortic Stenosis

5- Mitral Valve Prolapse

Q569. A 65 year old female present with intermittent diarrhoea and abdominal pain. She has also noticed her face flushing at times. She has now become increasingly breathless and fatigued. On examination there is evidence of peripheral oedema and hepatomegaly. There is also evidence of a pansystolic murmur loudest at the LLSE. What is the most likely diagnosis?

1- Mitral regurgitation

**2- Tricuspid regurgitation**

3- Aortic Regurgitation

4- Pulmonary stenosis

5- Aortic Stenosis

Q570. Which of the following is not useful in differentiating ventricular tachycardia from supraventricular tachycardia with aberrant conduction?

1- Concordance of QRS in chest leads

2- RBBB with left axis deviation on ECG

3- Capture and fusion beats

**4- Very irregular rhythm**

5- QRS width >160 ms

Q571. Which of the following should be avoided in broad complex tachycardia?

1- Atenolol

2- Sotalol

3- Cardioversion

**4- Verapamil**

5- Amiodarone

Q572. The existence of atrial fibrillation with mitral stenosis results in which of the following?

1- Large a wave and v wave

2- Nil

**3- Disappearance of a wave and large V wave**

4- Large a wave

5- Deep x and y descents

Q573. Which of the following findings is suggestive of another valvular lesion in a patient with mitral stenosis and no evidence of atrial fibrillation?

**1- Large V wave**

2- Right ventricular hypertrophy

3- Loud first heart sound

4- Haemoptysis

5- Large a wave

# Chapter 3 Dermatology

Q574. A 22 year old presents with itchy purple papules on his wrists and fingers and in his mouth with overlying white reticulate appearance. Which of the following is the most likely diagnosis?

**1- Lichen Planus**

2- Reiters syndrome

3- Dermatitis Herpetiformis

4- Atopic dermatitis

5- Psoriasis

Q575. A 40 year old male presents with arthralgia and syncopal episodes. An ECG reveals complete heart block. He returned from a hill walking holiday 3 months ago and has noticed an annular, indurated erythematous areas on his legs. What is the most likely diagnosis?

1- Tuberculosis

**2- Lyme disease**

3- Granuloma annulare

4- SLE

5- Psoriasis

Q576. A 35 year old presents with red scaly patches on her face, scalp and hands. On examination there is evidence of red plaques on her face, hands and scalp with some bald patches. Some of the patches show evidence of scarring and discolouration with hyperpigmentation at the border. He is complaining of vague joint pain. Given the most likely diagnosis, what treatment is useful if systemic treatment is required?

1- Methotrexate

2- Prednisolone

3- PUVA

4- Azathioprine

**5- Hydroxychloroquine**

Q577. A five year old boy is brought to the GP after noticing lesions on his neck and trunk. On examination there are several smooth, elevated, reddish papules with a central punctum. What is the most likely diagnosis?

1- Herpes Simplex virus

2- Lichen Planus

3- Spitz Naevus

**4- Molluscum Contagiosum**

5- Warts

Q578. A 52 year old female has developed a rash on her hands, feet which is gradually spreading centrally, predominantly on the extensor surfaces. She has been unwell for a few days before with a cold and the rash developed suddenly. On examination there is numerous circular lesions approximately 2cm in diameter which have a purpuric or pale centre. She states that new lesions develop whenever if there is any trauma to a site. Which of the following is most commonly associated with the development of these skin lesions?

1- Herpes Zoster virus

2- Tuberculosis

**3- Herpes simplex virus**

4- Mycoplasma pneumoniae

5- Lymphoma

Q579. A 32 year old gentleman has been undergoing topical treatment for psoriasis for some time. He presents as he has noticed patches of skin which appear thin and lax and which are hypopigmented and shiny with prominent blood vessels. What is the most likely cause of this?

**1- Topical steroid use**

2- Topical tar based cream

3- Dithranol

4- Advanced psoriatic plaques

5- Topical vitamin A analogue

Q580. A 16 year old female presents with a purpuric rash on her buttocks, arms and back of legs. The lesions began as erythematous macules. She is complaining of arthralgia and abdominal pain with some bloody diarrhoea. She had a cold about one week ago. On dipstick of urine there is evidence of proteinuria and microscopic haematuria. Given the most likely diagnosis, what is the likeliest outcome?

1- Recurring episodes

2- Chronic kidney disease

**3- Full recovery**

4- Acute renal failure without full recovery

5- Steroids required for full recovery

Q581. A 20 year old male presents with a rash to his GP. It is predominantly over his trunk and there is multiple papules and red scaly plaques with some looking like rain drops. These are itchy. He has recently been unwell with presumed strep. throat. He has recently had sex with a new partner. What is the most likely diagnosis?

1- Secondary syphilis

2- Pityriasis

3- Reiters syndrome

4- Toxic Epidermal Necrolysis

**5- Guttate psoriasis**

Q582. A 50 year old woman who has just been diagnosed with AML, presents to her GP feeling unwell and feverish and has tender plum coloured plaques, nodes and pseudo vesicles on her head, neck and arms. She is also complaining of some joint pain. Her bloods reveal a neutrophilia. Which of the following is the most likely diagnosis?

**1- Sweets syndrome**

2- Erythema nodosum

3- Erythema Multiforme

4- Nodular vasculitis

5- Adverse drug reactions

Q583. A 35 year old male presents with bald patches. These are well defined and there is no evidence of scarring. There is some broken hairs surrounding these areas. What is the most likely diagnosis?

1- Tinea capitis

2- Discoid lupus

3- Psoriasis

4- Telogen effluvium

**5- Alopecia areata**

Q584. A 35 year old female with ulcerative colitis presents with lesions on her legs. These lesions are itchy and burning. On examination there are lesions of palpable purpura which are approximately 3mm in diameter on her shins. There is also evidence of urticarial lesions on her arms and legs which have been there for approximately one day. She describes these as burning rather than itchy. Bloods reveal an elevated ESR and low complement. Which of the following is the most likely diagnosis?

1- Pyoderma Gangrenosum

2- Erythema Nodosum

3- Systemic Lupus Erythematous

**4- Leucocytoclastic Vasculitis**

5- Idiopathic Thrombocytopenic Purpura

Q585. A 22 year old female with severe cystic acne is being started on isotretinoin. Which of he following is the most important in regards to treatment with this drug?

1- Exclude pregnancy and commence contraceptive at time of starting isotretinoin

2- Exclude pregnancy

3- Risk of increased cholesterol and therefore IHD

**4- Exclude pregnancy and commence contraceptive one month before starting isotretinoin**

5- Risk of dryness of skin

Q586. A 22 year old presents with a rash. On examination there are small salmon pink papules with a fine scale which are drop like on her trunk and proximal arm and legs. She had suffered from tonsillitis two weeks previously. What is the most likely diagnosis?

1- Pityriasis Rosea

2- Secondary Syphillis

3- Dermatitis

4- Lichen Planus

**5- Guttate Psoriasis**

Q587. A 70 year old presents with a lesion on his cheek. The lesion has a raised, pearly border and there is telangiectasia on the surface of the lesion. What is the most likely diagnosis?

1- Actinic Keratosis

2- Wart

3- Melanoma

4- Squamous Cell Carcinoma

**5- Basal Cell Carcinoma**

Q588. A 29 year old female presents to her GP. She has noticed dandruff and a rash on her face. On examination there is evidence of areas of erythema with fine scaling over her nasal bridge, around her nasolabial fold and eyebrows and ears and there is evidence of fine scaling on the scalp. What is the most likely diagnosis?

**1- Seborrhoeic Dermatitis**

2- Eczema

3- Rosacea

4- Psosriasis

5- Pityriasis Capitis

Q589. A 29 year old female presents to her GP. She has noticed dandruff and a rash on her face. On examination there is evidence of areas of erythema with fine scaling over her nasal bridge, around her nasolabial fold and eyebrows and ears and there is evidence of fine scaling on the scalp. Which of the following is the most appropriate initial treatment?

**1- Topical Ketoconazole**

2- Oral Steroids

3- Oral Fluconazole

4- Topical steroids

5- PUVA

Q590. A 29 year old female presents to her GP. She has noticed dandruff and a rash on her face. On examination there is evidence of areas of erythema with fine scaling over her nasal bridge, around her nasolabial fold and eyebrows and ears and there is evidence of fine scaling on the scalp. Given the most likely diagnosis, which of the following organisms may be associated?

**1- Malassezia**

2- Propionibacterium acnes

3- Nil

4- Demodex mites

5- Candida Albicans

Q591. A 27 year old soldier has just returned from Afghanistan. He has been sent to the dermatology due to a lesion on his right forearm. He states that this began as a small red patch which them increased in size. On examination there is an erythematous raised lesion on his right forearm which has ulcerated and has crusted over. He is otherwise well. Which of the following is the most likely diagnosis?

1- Mucocutaneous Leishmaniasis

2- Psoriasis

**3- Cutaneous Leishmaniasis**

4- Eczema

5- Squamous Cell Carcinoma

Q592. What disorder would you most commonly associate with Stevens Johnson syndrome?

**1- Herpes simplex infection**

2- Sarcoidosis

3- Infective Endocarditis

4- Penicillin Use

5- Streptococcal infection

Q593. A 28 year old soldier presents with an itchy rash. He is itchy in his finger webs, wrists and groin and there is evidence of excoriation in these areas. What is the most likely diagnosis?

1- Lichen Planus

**2- Sarcoptes scabiei infection**

3- Contact dermatitis

4- Psoriasis

5- Tinea Corporis

Q594. A 60 year old gentleman presents with a mole on the sole of his foot. On examination there is evidence of a 1.5cm mole with border irregularity and a halo surrounding it. What is the most likely diagnosis?

1- Nodular melanoma

2- Superficial spreading melanoma

**3- Acral lentiginous melanoma**

4- Periungual melanoma

5- Lentigo maligna melanoma

Q595. A patient with ulcerative colitis develops several necrotic ulcers on her legs. How do you manage these?

1- Angiogram

2- Dressings alone

**3- Prednisolone**

4- Local application of silver nitrate

5- Antibiotics

Q596. A 37 year old male notices a blistering rash on his hands developing after working on a sunny day in the garden. This has occurred previously and led to some scarring. He has also noticed some hair developing on his cheek. What investigation would you perform to confirm the diagnosis?

1- Autoantibodies

2- Patch testing

**3- Plasma and urinary uroporphyrins**

4- Blood cultures

5- Skin biopsy

Q597. A 28 year old soldier presents with an itchy rash. He is itchy in his finger webs, wrists and groin and there is evidence of excoriation in these areas. What is the most likely diagnosis?

1- Lichen planus

**2- Sarcoptes scabiei infection**

3- Contact dermatitis

4- Psoriasis

5- Tinea corporis

Q598. A 35 year old presents with red scaly patches on her face, scalp and hands. On examination there is evidence of red plaques on her face, hands and scalp with some bald patches. Some of the patches are scarring and discoloured. What is the diagnosis that fits best with this clinical picture?

1- SLE

2- Psoriasis

**3- Chronic discoid lupus erythematosus**

4- Seborrhoeic Dermatitis

5- Drug induced lupus

Q599. A 14 year old girl presents with moderate acne and pustules affecting the face, back and chest. How would you manage this case?

**1- Oral tetracycline for three months**

2- Topical tretinoin

3- Topical erythromycin

4- Roaccutane

5- Dianette

Q600. A 52 year old with known alcohol excess presents with facial flushing, pustules and telangiectasia predominantly around the nose. What is the most likely diagnosis?

1- Drug reaction

2- Seborrhoeic Dermatitis

3- Allergic reaction

4- Acne vulgaris

**5- Rosacea**

Q601. A 72 year old female presents to her GP after noticing blisters on her arms and legs. She has recently been commenced on furosemide. On examination there is tense blisters evident predominantly on the flexural surfaces of her arms and legs. There is no evidence of blisters in her mucous membranes. There is some healing areas where the blisters have burst but no evidence of scarring. A skin biopsy is organised and reveals subepidermal blister and inflammatory infiltrate with numerous eosinophils. What is the most likely diagnosis?

1- Pyoderma gangrenosum

2- Eczema herpeticum

3- Pemphigus vulgaris

**4- Bullous Pemphigoid**

5- Dermatitis Herpetiformis

Q602. A 22 year old female with some bowel habit change presents with a rash on her buttocks, elbows and knees. It is erythematous with some blistering and it is intensely itchy. A skin biopsy reveals subepidermal blister formation and immunofluorescence reveals IgA present within the papillae. Which of the following is the most appropriate therapy for her?

1- Oral steroids

2- Elemental diet

3- Dairy free diet

4- Topical steroids

**5- Gluten free diet**

Q603. A 27 year old female who works in a nursing home is referred to the clinic with an itchy rash on her hands. On examination her hands are excoriated with some bleeding points and there is an erythematous papular rash on both hands with some vesicles. On patch testing she is positive for latex. How would you manage this patient long term?

1- Antibiotics

2- Topical steroids

**3- Avoid latex gloves**

4- Topical antifungals

5- Oral steroids

Q604. A 50 year old male who is a heavy smoker presents with velvety, hyperpigmented skin in his axillae. He has also noticed he has lost several stones in weight and has anorexia. What is the most likely diagnosis?

1- Chloasma

**2- Acanthosis nigricans**

3- Tinea Cruris

4- Pseudoxanthoma Elasticum

5- Necrobiosis Lipoidica

Q605. A 22 year old female with some bowel habit change presents with a rash on her buttocks, elbows and knees. It is erythematous with some blistering and it is intensely itchy. A skin biopsy reveals sub- epidermal blister formation and immunofluorescence reveals IgA present within the papillae. What is the most likely diagnosis?

1- Pemphigus vulgaris

**2- Dermatitis Herpertiformis**

3- Bullous pemphigoid

4- Herpes virus

5- Eczema

Q606. A 23 year old presents with yellow, brownish depressed patches on her shin. It began as a reddish brown colour and new patches appear if she bumps her leg. She is also complaining of weight loss, polydipsia and polyuria. Which test should be performed?

1- Cholesterol level

2- Auto antibodies

3- Glucose tolerance test

4- Skin Biopsy

**5- Fasting glucose**

Q607. A 55 year old female presents with a rash and she has noticed blisters forming. On examination she has areas of erythema and excoriations. She has dysuria. She is currently on atenolol and aspirin for hypertension. A skin biopsy is organised and shows intercellular staining of IgG on immunofluorescence. What is the most likely diagnosis?

1- Dermatitis herpetiformis

2- Eczema Herpeticum

3- Bullous

4- Allergic reaction

**5- Pemphigus Vulgaris**

Q608. A 35 year old man with inflammatory bowel disease presents with an ulcer. On examination he has a deep ulcerating lesion on his leg. How would you confirm the diagnosis? No further investigation

**1- Biopsy and culture from the ulcer**

2- Immunoglobulins

3- No further investigations

4- Doppler Ultrasound

5- Autoantibodies

Q609. A 35 year old gentleman presents to his GP with a firm ulcerated lesion of his nostril and nasal septum. He has just returned from travelling in South America. He is otherwise well. What is the most likely diagnosis?

1- Squamous cell carcinoma

2- Basal cell carcinoma

3- Leprosy

**4- Mucocutaneous Leishmaniasis**

5- Malignant Melanoma

Q610. A patient with Ulcerative Colitis presents with problems with her stoma site. On examination there appears to be a large ulcer with a boggy necrotic base with erythema at it's margins. It is very painful and she states it began as a pustule and it has been rapidly growing. Which of the following treatments should be commenced?

1- Urgent plastics review

2- Oral flucloxacillin

3- IV flucloxacillin

4- IV steroids

**5- Oral steroids**

Q611. A 22 year old male presents with left knee and right ankle pain and swelling. He has a rash on the palms of his hands and also on the soles of his feet. On examination of the hands there is hyperkeratotic waxy papules which have a yellow brown colour. What is the most likely diagnosis?

1- Psoriasis

**2- Reactive arthritis**

3- Rheumatoid arthritis

4- Secondary Syphilis

5- Lyme disease

Q612. A patient presents with an itchy rash. It started on the flexor surface of the wrists and spread to the forearms and is now also present on her shins and lumbar back. On examination there was evidence of red papules with white streaks and there was occasional blisters. She is otherwise well and on no medication Which of the following is the most likely diagnosis?

1- Pustular Psoriasis

**2- Lichen Planus**

3- Atopic Dermatitis

4- Dermatitis Herpetiformis

5- Pemphigus Vulgaris

Q613. A 72 year old female presents with a rash on her face. She states she had been unwell for a couple of days prior to the rash developing with malaise and fever and a few episodes of vomiting. On examination there is a bright fiery red, oedematous, warm, shiny area on the right side of her face, spreading from the paranasal area over the cheek, with borders which are sharply demarcated. This is painful, burning and itchy. Which of the following is the most likely diagnosis?

1- Cellulitus

2- Impetigo

3- Dermatitis

4- Erythrasma

**5- Erysipelas**

Q614. A 75 year old male presents with a lesion on the back of his hand. He states this has been increasing in size over the last few months. On examination there is evidence of an indurated hyperkeratotic nodule. The centre has become necrotic and has began to ulcerate and the edges are hard and raised. Which of the following is the most likely diagnosis?

1- Basal Cell Carcinoma

**2- Squamous Cell Carcinoma**

3- Bowen's disease

4- Malignant Melanoma

5- Actinic Keratosis

Q615. A 65 year old gentleman presents with a rapidly growing, solitary lesion near the lip. It has grown rapidly over the last few weeks. It is a nodule and the centre is necrotic and crusted. You suspect this is a Keratoacanthoma. Which of the following is your next management step?

1- Topical 5-fluorouracil

2- Radiotherapy

3- Cryotherapy with liquid nitrogen

**4- Excision**

5- Shave Biopsy

Q616. A 30 year old male presents with recurring painful genital ulcers and oral ulcers. He also has a painful red eye and painful joints. What is the most likely diagnosis?

1- Syphilis

2- Stevens Johnson Syndrome

3- Herpes Simplex

4- Reiters syndrome

**5- Behcets syndrome**

Q617. A 37 year old male notices a blistering rash on his hands developing after working on a sunny day in the garden. This has occurred previously and led to some scarring. He has also noticed some hair developing on his cheek. What investigation would you perform to confirm the diagnosis?

1- Patch testing

2- Skin biopsy

3- Blood cultures

4- Autoantibodies

**5- Plasma and urinary uroporphyrins**

Q618. A 68 year old gentleman presents with a red, swollen, warm, hardened area of skin which is well demarcated and has a raised border. He is generally unwell with a fever. What organism is most likely responsible?

1- Herpes Simplex Virus

2- Staph. Epidermidis

**3- Streptococcus Pyogenes**

4- Staphylococcus Aureus

5- Group B haemolytic streptococcus

Q619. Which of the following best describes a solid, circumscribed elevation which is 7mm in diameter?

1- Pustule

**2- Nodule**

3- Plaque

4- Macule

5- Papule

Q620. A 50 year old female has recurrent problems with a troublesome rash. It is on her trunk and limbs and there is multiple lesions which are papular and itchy and she also has some surrounding purpuric lesions. She is otherwise well. A biopsy is organised and reveals a lymphocytic vasculitis. What is the most likely diagnosis?

**1- Pityriasis lichenoides acuta**

2- Lichen Planus

3- Eczema

4- Pityriasis rosea

5- Psoriasis

Q621. A 23 year old male presents to his GP with painful penile ulcers. They have developed on his return from a safari where he had had unprotected sex. On examination there is ulcers on his penis and he has suppurating groin lymphadenopathy. What is the most likely diagnosis?

1- Herpes

**2- Chancroid**

3- Syphilis

4- Lymphogranuloma venereum

5- Donovanosis

Q622. How would you manage necrobiosis lipoidica?

1- Oral Steroids

2- Nil management effective

3- Antibiotics

4- Topical steroids

**5- Low dose aspirin**

Q623. A 22 year old presents with itchy purple papules on his wrists and fingers and in his mouth with overlying white reticulate appearance. Which of the following is the most likely diagnosis?

**1- Lichen planus**

2- Reiters Syndrome

3- Atopic Dermatitis

4- Dermatitis Herpetiformis

5- Psoriasis

Q624. A 52 year old with known alcohol excess presents with facial flushing, pustules and telangiectasia predominantly around the nose. What is the most likely diagnosis?

**1- Rosacea**

2- Allergic Reaction

3- Acne vulgaris

4- Seborrhoeic Dermatitis

5- Drug reaction

Q625. A 25 year old female has began to notice the development of an erythematous rash on her ears and wrists. She wears cheap jewellery. There is nil else of note and she is otherwise well. How would you investigate?

1- RAST testing

2- No Investigation required

3- Serum immunoglobulins

4- Skin Biopsy

**5- Patch testing**

Q626. A 21 year old female presents to her GP after developing an intensely itchy erythematous rash around a new henna tattoo with vesicles present. What chemical is present in henna which led to this?

**1- p.Phenylenediamine**

2- Nickel

3- Lanolin

4- Ammonia

5- Formaldehyde

Q627. A 22 year old female with some bowel habit change presents with a rash on her buttocks, elbows and knees. It is erythematous with some blistering and it is intensely itchy. A skin biopsy reveals sub epidermal blister formation and immunofluorescence reveals IgA present within the papillae. Which of the following is the most appropriate therapy for her?

1- Dairy free diet

**2- Gluten free diet**

3- Oral Steroids

4- Topical Steroids

5- Elemental diet

Q628. A 20 year old present with diarrhoea, weight loss and an itchy rash on her scalp, elbows and buttocks. You suspect dermatitis herpetiformis. On a skin biopsy, what immunoglobulins is likely to be found on immunofluorescence?

1- IgD

2- IgM

3- IgG

**4- IgA**

5- IgE

Q629. A 40 year old female who has epilepsy has recently been started on a new drug. She has now developed a rash all over her body. There is evidence of large macules which are very painful and also evidence where the epidermis has shed and there is dermis revealed. This evident in the mouth also. She looks unwell and is pyrexial, tachycardic and hypotensive. What is the most likely diagnosis?

1- Eczema Herpeticum

2- Staphylococcal Scalded Skin Syndrome

3- Erythema Nodosum

**4- Toxic epidermal necrolysis**

5- Stevens Johnson Syndrome

Q630. A 72 year old female presents to her GP after noticing blisters on her arms and legs. She has recently been commenced on furosemide. On examination there is tense blisters evident predominantly on the flexural surfaces of her arms and legs. There is no evidence of blisters in her mucous membranes. There is some healing areas where the blisters have burst but no evidence of scarring. A skin biopsy is organised and reveals subepidermal blister and inflammatory infiltrate with numerous eosinophils. What is the most likely diagnosis?

1- Dermatitis herpetiformis

2- Pemphigus Vulgaris

3- Pyoderma Gangrenosum

4- Eczema Herpeticum

**5- Bullous pemphigoid**

Q631. A 30 year old female presents to her GP with painful bruise like lesions on her shins. She has had a sore throat for the last few days. On examination there was evidence of red tender nodules and ankle swelling. What is the likely clinical outcome?

**1- Resolved without intervention**

2- Likely to develop IBD

3- Chronic Problem

4- Will require Steroids for resolution

5- Likely to develop Respiratory symptoms

Q632. A 24 year old female who has previously self harmed presents with a linear erythematous rash. What is most likely diagnosis?

1- Eczema

2- Contact dermatitis

3- Psoriasis

**4- Dermatitis artefacta**

5- Purpura

Q633. A 27 year old female who works in a nursing home is referred to the clinic with an itchy rash on her hands. On examination her hands are excoriated with some bleeding points and there is an erythematous papular rash on both hands with some vesicles. On patch testing she is positive for latex. How would you manage this patient long term?

1- Oral Steroids

2- Topical Antifungals

3- Topical Steroids

4- Antibiotics

**5- Avoid latex gloves**

Q634. A 30 year old with Type 1 Diabetes Mellitus presents with a painful erythematous papular rash with vesicles, predominantly on the scalp, buttocks and extensor surfaces. This has been ongoing for several months. A skin biopsy reveals subepidermal blister, papillary micro abscesses and infiltration of dermal papillae. How would you manage this patient?

1- Topical Steroids

2- Antifungal cream

**3- Gluten free diet and dapsone**

4- Oral steroids

5- Dapsone

Q635. A 63 year old female with pale complexion presents with an itchy pigmented lesion on her cheek. She had been burnt several times as a child. On examination she has a 10mm dark flat lesion on her cheek. A skin biopsy confirms a melanoma in situ. Which of the following is the most appropriate treatment?

1- Surgical excision 0.5cm surgical resection and chemotherapy

**2- Surgical excision 1 cm resection margin**

3- Imiquimod cream

4- Radiotherapy

5- Cryotherapy

Q636. A 65 year old female present with a blistering itchy rash. On examination there was evidence of tense blisters on her thigh and trunk and some small vesicles. What is the most likely diagnosis?

1- Dermatitis herpetiformis

2- Eczema Herpeticum

3- Pemphigus Vulgaris

**4- Bullous pemphigoid**

5- Photosensitivity

Q637. Within the skin where are melanocytes situated?

1- Subcutaneous layer

2- Variable position within the epidermal layers

**3- Basal layer of epidermis**

4- Granular layer of epidermis

5- Dermis

Q638. What feature is most worrying regarding a possible malignant melanoma?

1- Regular border

**2- Variable pigmentation**

3- Blue black pigmentation

4- Diameter 4mm

5- Raised lesion

Q639. A patient presents with several areas of depigmented areas on his skin. They were scaly before depigmenting There is no other symptoms. What is the most appropriate treatment?

**1- Clotrimazole ointment**

2- Oral fluconazole

3- Fusidic acid ointment

4- Oral Steroids

5- Topical Steroids

Q640. A 23 year old has been generally unwell with a fever and a painful facial rash which is getting progressively worse. The rash is erythematous, raised, indurated, tender and has a clear cut border. She is pyrexial and has a mild tachycardia. What organism is the likely culprit?

1- Staph. Aureus

**2- Group A Streptococcus**

3- Group B Streptococcus

4- Herpes zoster infection

5- Staph. Epidermidis

Q641. What leads to tinea incognito?

1- Use of an antifungal cream

**2- Inappropriate use of topical steroid**

3- Antibiotic Use

4- Superimposed Infection

5- No treatment

Q642. How would you investigate a patient with striated, rough, lustreless nails?

1- Nail biopsy

2- Nail clippings for mycology

3- No Investigation required

4- Bloods including inflammatory markers

**5- Wood light examination**

Q643. A 14 year old girl presents with moderate acne and pustules affecting the face, back and chest. How would you manage this case?

1- Roaccutane

2- Topical Erythromycin

3- Dianette

4- Topical tretinoin

**5- Oral tetracycline for three months**

Q644. A 72 year old gentleman is referred to the clinic with a lesion on his cheek which has been gradually increasing in size, is raised and has a pearly appearance with an ulcerated centre. What of the following is the most likely diagnosis?

1- Actinic Keratosis

**2- Basal cell carcinoma**

3- Squamous cell carcinoma

4- Amelanotic melanoma

5- Wart

Q645. An 18 year old girl presents in Autumn to her GP with a rash. She noticed a couple of weeks ago a small patch and several patches appeared and were itchy. On examination there was oval/ pink plaques on her trunk, upper arm and legs. What is the most likely diagnosis?

1- SLE

2- Drug Eruptions

**3- Pityriasis Rosea**

4- Guttate Psoriasis

5- Lichen Planus

Q646. A 20 year old female presents with plaques at her scalp margins and on her knees. On examination there is evidence of hyperkeratotic plaques. Hair is sent for mycology and shows no growth. What is the most likely diagnosis?

1- Eczema

2- Seborrhoeic dermatitis

3- Tinea Capitis

**4- Psoriasis**

5- Pityriasis Rosea

Q647. A 25 year old female with poorly controlled type 1 diabetes mellitus presents with several erythematous circular lesions on the dorsal aspect of her hand. The centre of the lesion is slightly depressed. What is the most likely diagnosis?

1- Necrobiosis lipoidica

2- Pyoderma gangrenosum

3- Eczema

**4- Granuloma annulare**

5- Lichen Planus

Q648. A 22 year old with Graves Disease presents as she has noticed some areas of depigmentation. She has just returned from holiday. What is the most likely diagnosis?

**1- Vitiligo**

2- Pityriasis versicolor

3- Chloasma

4- Psoriasis

5- Leprosy

Q649. A 22 year old female with a history of Ulcerative colitis presents to the clinic with large painful ulcers on her legs, feels unwell and is feverish. What is the most likely diagnosis?

1- Arterial Ulcers

2- Necrobiosis lipoidica

3- Erythema nodosum

4- Venous Ulcers

**5- Pyoderma gangrenosum**

Q650. A 60 year old male present to her GP with ulcers on his legs. He is a heavy smoker. On examination he has several punched out ulcers around the ankle and lower third of the shin. There is absence of the distal limb pulses. What is the most likely diagnosis?

1- Vasculitis

**2- Arterial Ulcers**

3- Venous Ulcers

4- Pyoderma Gangrenosum

5- DVT

Q651. A 68 year old female who has previous had a DVT in her right leg presents to her GP with an ulcer. On examination there is an ulcer on the right leg just above the medial malleolus. It is sloughy and the surrounding skin is discoloured. Distal pulses are present. What is the most likely diagnosis?

1- Neuropathic Ulcer

2- Vasculitis

3- Arterial Ulcer

4- Pyoderma Gangrenosum

**5- Venous Ulcer**

Q652. A 20 year old female presents having noticed a hard area on her leg. On examination there is a small area of skin which is pale, indurated and appears glazed. What is the most likely diagnosis?

1- Pityriasis versicolor

2- Leprosy

3- Burn

**4- Morphoea**

5- Vitiligo

Q653. A 32 year old female presents with a bald patch. It has been gradually increasing in size and is itchy and on examination it is scaling. A Woods Lamp reveals bright green immunofluorescence. What is the most likely diagnosis?

1- Alopecia areata

2- Tinea Corporis

**3- Tinea Capitis**

4- Psoriasis

5- Tinea Cruris

Q654. A patient presents with papules which are greasy and brown over her chest. She is otherwise well. What is the most likely diagnosis?

1- Pityriasis rosea

2- Psoriasis

3- Seborrhoeic Dermatitis

**4- Dariers disease**

5- Necrobiosis lipoidica

Q655. What drug is most likely to cause a psoriatic type reaction?

1- Ramipril

2- Amlodipine

3- Warfarin

**4- Atenolol**

5- Amoxicillin

Q656. Psoriasis is associated with what HLA subtype?

1- HLA B5

2- HLA B4

3- HLA B27

4- HLA DR4

**5- HLA CW6**

Q657. A 25 year old with type 1 diabetes mellitus presents to her GP with bald patches. On examination she has several bald patches which are not inflamed or scaly. The areas are well demarcated and do not fluoresce under a Woods Lamp. What is the most likely diagnosis?

1- Psoriasis

2- Tinea Capitis

3- Drug induced alopecia

4- Telogen effluvium

**5- Alopecia areata**

Q658. A 25 year old female on the oral contraceptive has started to notice dark areas of pigmentation on her face. What is the most likely diagnosis?

**1- Chloasma**

2- Melanoma

3- Vitiligo

4- Addisons

5- Acanthosis Nigricans

Q659. A 49 year old male has noticed weak legs especially when standing up from a chair. He also has noticed a rash on his knuckles and around his eyes. He is a heavy smoker. On examination her a purplish rash around his eyes and eyelids, some reddish papules on his knuckles and has proximal muscle weakness. What is the most likely diagnosis?

1- Polymyositis

2- Cushings disease

3- ITP

4- Hypothyroidism

**5- Dermatomyositis**

Q660. A 35 year old presents with red scaly patches on her face, scalp and hands. On examination there is evidence of red plaques on her face, hands and scalp with some bald patches. Some of the patches are scarring and discoloured. What is the diagnosis that fits best with this clinical picture?

**1- Chronic discoid lupus erythematosus**

2- Drug induced lupus

3- Seborrhoeic Dermatitis

4- Psoriasis

5- Systemic lupus erythematosus

Q661. A 52 year old male who drinks alcohol to excess presents with a blistering rash on his hands and neck, hypertrichosis on his cheeks and hyperpigmentation. What test would you perform to confirm the diagnosis within the clinic setting?

1- Urinary porphyrin

2- Autoantibodies

3- ANA

4- Serum porphyrin

**5- Look at urine with an UV light**

Q662. A patient suspected to have lung cancer presents with a skin disorder, what is this likely to be?

1- Sweets Syndrome

2- Necrolytic migratory erythema

3- Ichthyosis

4- Acanthosis Nigricans

**5- Dermatomyositis**

Q663. A patient with Graves Disease has noticed nail changes. What are these nail changes likely to be?

1- Discolouration

2- Rough texture to nails

3- Nail pitting

4- Nail fold haemorrhages

**5- Onycholysis**

Q664. A patient presents with multiple small purple coloured, scaly papules present on his hands, wrist, mouth, flexural surfaces and in a scar. What is the most likely diagnosis?

1- Eczema

**2- Lichen planus**

3- Tinea infection

4- Scabies

5- Guttate Psoriasis

Q665. A 78 year old female has evidence of thickened white plaques which appear atrophic on her vulva. What is the most likely diagnosis?

1- Vitiligo

**2- Lichen sclerosus**

3- Eczema

4- Lichen planus

5- Psoriasis

Q666. What is the underlying diagnosis likely to be if someone has an acute episode of erythroderma?

1- Psoriasis

**2- Eczema**

3- Drug eruptions

4- Lymphoma

5- Infection

Q667. A 43 year old male has been diagnosed with mycoplasma pneumonia. He then develops a symmetrical erythematous rash. The rash appears to be rings of erythema with a pale centre. What is the most likely diagnosis?

1- Drug Eruption

2- Erythema nodosum

3- Lichen planus

**4- Erythema multiforme**

5- Guttate psoriasis

Q668. Which of the following best describes Kaposis Sarcoma?

1- Unlikely to spread

2- Treated completely with surgical excision

3- It has a very good prognosis

**4- It can effect elderly men**

5- Very Itchy

Q669. In Lentigo Maligna, what is most important in determining the prognosis?

1- Pigmentation

2- Irregularity of border

**3- Thickness of lesion**

4- Bleeding

5- Size

Q670. What is a feature of Squamous Cell Carcinoma?

1- Very poor prognosis

2- Commonly metastasises to distant sites via venous spread

**3- It is unusual but can metastasise via the lymphatics**

4- Brown black discolouration

5- Breslow thickness related to prognosis

Q671. A 21 year old presents to his GP feeling unwell with headaches, myalgia and arthralgia, following a holiday. He has a non pruritic rash. On examination he has a symmetrical pink papular rash involving his trunk, limbs and hands, palms and soles. You notice some white erosions on his buccal mucosa and there is evidence of lymphadenopathy in his inguinal, cervical and axillary regions. What is the most likely diagnosis?

1- Streptococcal Infection

2- Guttate Psoriasis

**3- Secondary syphilis**

4- Pityriasis rosea

5- Infectious mononucleosis

Q672. A 40 year old male presents with arthralgia and syncopal episodes. An ECG reveals complete heart block. He returned from a hill walking holiday 3 months ago and has noticed an annular, indurated erythematous areas on his legs. What investigation would you performed to confirm the diagnosis?

1- Echocardiogram

**2- Serology**

3- Skin biopsy

4- Autoimmune screen

5- Blood cultures

Q673. A 50 year old male presents with proximal weakness, shortness of breath, purplish discolouration around his eyes and a rash on his knuckles. He is a heavy smoker. On examination there is small discrete erythematous papules on his knuckles and there is evidence of dilated capillary loops in his nail folds. Which of the following is the most likely diagnosis?

1- Secondary Syphilis

2- Polymyositis

**3- Dermatomyositis**

4- ITP

5- Psoriasis

Q674. A 10 year old girl has epilepsy, learning disabilities, hypo pigmented macules and periungual fibromas. What is the most likely diagnosis?

1- Haemachromatosis

**2- Tuberous sclerosis**

3- Galactosaemia

4- Wilsons Disease

5- Neurofibromatosis

Q675. A 29 year old female recently emigrated from Spain presents with an erythematous macular rash with a nodular component on her face. What is the most likely diagnosis?

1- Seborrhoeic Dermatitis

2- SLE

3- Rosacea

**4- Cutaneous Leishmaniasis**

5- Acne

Q676. A 30 year old female present with painful, tender, discoloured nodular lesions on her arms and shins. She has been unwell for some time with pyrexia, arthralgia and malaise. How would you investigate to establish the diagnosis?

**1- Chest Xray**

2- Serology

3- Autoantibodies

4- Complement studies

5- Skin biopsy

Q677. What best describes isotretinoin treatment?

1- It can be used safely in pregnancy

**2- Pregnancy must be excluded before treatment and avoided**

3- It is used in moderate acne

4- No need to monitors LFTs

5- Does not lead to dryness of mucous membranes

Q678. A 22 year old man, just returning from holiday presents with arthralgia, dysuria, conjunctivitis and erythematous scaly patches on his palms and soles. What is the most likely diagnosis?

1- Secondary Syphilis

2- Guttate psoriasis

3- Travellers Diarrhoea

4- Influenza

**5- Reiters disease**

Q679. A 16 year old female presents with a purpuric rash on her buttocks, arms and back of legs. The lesions began as erythematous macules. She is complaining of arthralgia and abdominal pain with some bloody diarrhoea. She had a cold about one week ago. On dipstick of urine there is evidence of proteinuria and microscopic haematuria. What is the most likely diagnosis?

1- Haemolytic Uraemic Syndrome

**2- Henoch Schönlein purpura**

3- Idiopathic thrombocytopenic purpura

4- Physical Abuse

5- Rhomboidal non combustibles purpura

Q680. A 50 year old male with a raised BMI presents with an erythematous plaque with a scaling border and healing centre in the groin. What is the most likely diagnosis?

1- Intertrigo

2- Candidiasis

**3- Tinea cruris**

4- Scabies

5- Psoriasis

Q681. A 50 year old female presents with a blistering rash on her trunk and in her mouth. When side pressure is applied to the skin it separates and blisters rupture easily. A skin biopsy reveals intraepidermal splits and shows acantholysis. What is the most likely diagnosis?

1- Eczema herpeticum

2- Bullous pemphigoid

**3- Pemphigus vulgaris**

4- Dermatitis herpetiformis

5- Porphyria Cutanea Tarda

Q682. A 44 year old man who is homeless and admits to excessive alcohol intake presents with a purple rash on his shins. On examination it is tender on palpation and appears as purple nodules. What is the most likely diagnosis?

1- Erythema Multiforme

2- Insect bites

3- Vasculitis

4- Bruising

**5- Erythema nodosum**

Q683. A 52 year old female has developed a rash on her hands, feet which is gradually spreading centrally, predominantly on the extensor surfaces. She has been unwell for a few days before with a cold and the rash developed suddenly. On examination there is numerous circular lesions approximately 2cm in diameter which have a purpuric or pale centre. She states that new lesions develop whenever if there is any trauma to a site. What is the most likely diagnosis?

**1- Erythema multiforme**

2- Tick Bite

3- Leprosy

4- Dermatomyositis

5- Erythema nodosum

Q684. A 22 year old presents with red scaly plaques which are itchy on predominantly her hands and also her flexural surfaces. She is known to be asthmatic and has coeliac disease. What is the most likely diagnosis?

1- Dermatitis herpetiformis

2- Pityriasis Rosea

**3- Atopic eczema**

4- Psoriasis

5- Contact Dermatitis

Q685. In malignant melanoma what is not considered a poor prognostic factor?

1- Microsatellite metastasis

2- Breslow thickness greater than 5 mm

3- Clarkes level IV

4- Surface ulceration

**5- Diameter of melanoma greater than 8 mm**

Q686. A 30 year old with puckered yellowish skin on her neck. On examination there is yellowish papules which are cobble stoned in appearance. She is also noted to be hypertensive and on fundoscopy there is evidence of angioid streaks. What is the most likely diagnosis?

1- Toxoplasmosis

2- Necrobiosis lipoidica

3- Seborrhoeic dermatitis

**4- Pseudoxanthoma elasticum**

5- Ehlers Danlos syndrome

Q687. A 4 month old baby has a port wine stain. He is brought to A and E following a presumed seizure where he was shaking uncontrollable. What is the most likely diagnosis?

1- Strawberry Naevus

2- Epilepsy

**3- Sturge Weber syndrome**

4- Febrile convulsion

5- Incomplete Sturge Weber Syndrome

Q688. In acne vulgaris what is false?

**1- Comedonal acne is characterised by cystic lesions**

2- Acne vulgaris can differ in severity

3- Isotretinoin is teratogenic

4- Acne vulgaris can lead to scarring

5- Acne fulminans can lead to a severe systemic disorder

Q689. What is true regarding psoriasis?

**1- Increased epidermal proliferation is the underlying cause.**

2- It is often associated with malignancy

3- There is only one type

4- In the majority there is nail, hair or arthritic changes.

5- It affects predominantly the flexural surfaces

Q690. What is not a worrying feature of malignancy in an existent melanocytic naevi?

1- Change in pigmentation

2- Irregular border

3- Increase in size

**4- Decrease in size**

5- Bleeding or itching

Q691. A 50 year old has been diagnosed with pyoderma gangrenosum. His blood results also reveal hypercalcaemia and renal failure. What is the likely underlying condition?

1- Ankylosing Spondylitis

2- Crohns Disease

**3- Multiple myeloma**

4- Sarcoidosis

5- Glomerulonephritis

# Chapter 4 Endocrinology

Q692. A 28 year old pharmacist is brought to A and E after feeling very anxious and sweaty and appearing confused. Her BM was measured and was 2.8. A formal lab glucose revealed a glucose of 2.5, high insulin level and virtually undetectable Cpeptide. What is the most likely diagnosis?

1- Anorexia

2- Type 1 Diabetes Mellitus

3- Liver Disease

4- Insulinoma

**5- Factitious insulin induced hypoglycaemia**

Q693. A 68 year old male has been suffering from a cough productive of green sputum and shortness of breath He is brought to A and E drowsy and confused. He is found to have a sodium of 115 mmol/L, normal renal function, with a plasma osmolality of 260 mOsmol/kg and urine osmolality of 500 mOsm/kg and urinary sodium of 145 mmol/L. What is the most likely cause of the hyponatraemia?

1- Fluid overload

2- ARF

3- Hypothyroidism

4- Addisons Disease

**5- SIADH**

Q694. A 68 year old male has been suffering from a cough productive of green sputum and shortness of breath He is brought to A and E drowsy and confused. He is found to have a sodium of 115 mmol/L, normal renal function, with a plasma osmolality of 260 mOsmol/kg and urine osmolality of 500 mOsm/kg and urinary sodium of 145 mmol/L. What is the most likely cause of the hyponatraemia?

1- ARF

**2- SIADH**

3- Addisons Disease

4- Fluid overload

5- Hypothyroidism

Q695. Which of the following is not useful in the management of thyroid eye disease?

1- Ciclosporin

2- Steroids

**3- Radioiodine therapy**

4- Radiotherapy

5- Orbital Decompression

Q696. What is the mechanism of action of bisphosphonates?

**1- Inhibits farnesyl pyrophosphate synthase, inhibiting osteoclasts activity**

2- Inhibits HMG CoA reductase, inhibiting osteoclasts activity

3- Inhibits HMG CoA, stimulating osteoblasts activity

4- Inhibits farnesyl pyrophosphate synthase, stimulating osteoclasts activity

5- Inhibits farnesyl pyrophosphate synthase, stimulating osteoblasts activity

Q697. A 32 year old female with type 1 diabetes mellitus presents with yellow, brownish depressed patches on her shin. It began as a reddish brown colour and new patches appear if she bumps her leg. What is the most likely diagnosis?

1- Xanthoma

2- Granuloma annulare

3- Erythema nodosum

**4- Necrobiosis lipoidica**

5- Rheumatoid nodules

Q698. A patient who is ICU is found to have a slightly low TSH, low T3 and normal T4. She has no history of thyroid disease. What is the most likely cause?

1- Pituitary Hypothyroidism

2- Subclinical hyperthyroidism

3- Hypothyroidism

4- Hyperparathyroidism

**5- Euthyroid sick syndrome**

Q699. A patient is found to have a cholesterol of 12 mmol/L. He notes that his mother and grandmother had problems with high cholesterol. He is thought to have familial hypercholesterolaemia. Which of the following features is highly suggestive of this?

1- Elevated triglycerides

**2- Tendon Xanthomata**

3- Xanthelasma

4- Xanthelasmata palpebrarum

5- Premature corneal arcus

Q700. A 70 year old male with long standing diabetes presents with severe pain in his left thigh. On examination there is marked wasting of his quadriceps on the left side and loss of knee reflex. What is most useful for the management?

**1- Good glycaemic control**

2- B12 supplementation

3- Weight loss

4- NSAIDs

5- Gabapentin

Q701. A 30 year old female has not had a period for several months. She has noticed that she has put on wait, has been depressed and constipated and has noticed changes in her skin and hair. Given the most likely cause of amenorrhoea, which of the following would you expect to observe on bloods?

1- Low oestradiol

2- Elevated testosterone

3- Elevated LH

**4- Hyperprolactinaemia**

5- Elevated FSH

Q702. Which of the following indicates premature ovarian failure?

**1- Elevated FSH and LH levels and low oestrogen**

2- High prolactin

3- Elevated FSH/LH ratio

4- Elevated LH and low oestrogen levels

5- Elevated LH

Q703. A 28 year old female presents with irregular periods. She is overweight and has problems with excessive hair and acne. You notice she appears to have broad shoulders and a deep voice. An ultrasound reveals nests of cells throughout the ovarian stroma. Bloods reveal elevated testosterone levels. What is the most likely diagnosis?

1- Congenital adrenal hyperplasia

2- Cushings syndrome

3- Polycystic ovarian syndrome

**4- Ovarian hyperthecosis**

5- Androgen producing tumour

Q704. A 60 year old male presents with headaches. On examination he appears to have very large hands and a prominent jaw. He is hypertensive and appears to be sweating profusely. Which of the following is useful in the first instance for the diagnosis?

1- Growth hormone levels

**2- IGF1 levels followed by growth hormone levels before and after glucose tolerance test**

3- Short synacthen

4- Glucose levels

5- Cortisol levels

Q705. A 60 year old presents with tiredness, depression, polyuria, polydipsia and constipation. He is found to have a calcium of 3.0mmol. His phosphate level is low and alkaline phosphatase high. Urinary calcium excretion is also elevated. What is the most likely diagnosis?

1- Sarcoidosis

2- Familial Hypocalciuric Hypercalcaemia

3- Metastases

4- Myeloma

**5- Primary hyperparathyroidism**

Q706. A 2 year old is brought to his GP. His parents have noticed he is very small for his age. He has only just begun to walk and is not keen to. He complains of pain when he is walking. On examination there is evidence of frontal bossing of the skull and bowing of the legs. Bloods reveal a slightly low calcium, low phosphate and high alkaline phosphatase. There is increased urinary phosphate. What is the most likely diagnosis?

1- X linked recessive hypophosphataemic rickets

2- Vitamin D resistant rickets type 2

3- Vitamin D resistant rickets type 1

4- Osteomalacia

**5- X linked dominant hypophosphataemic rickets**

Q707. A 26 year old female presents to her GP with fatigue. This has been a problem now for several months since she had viral illness. Her exercise tolerance has greatly decreased and she feels very fatigued following any exertion. She has intermittently been suffering from headaches and is sleeping about 12 hours a day but still feels unrefreshed. She also complains of back pain with no clear preciptating factor, Examination and blood tests are normal. Given the most likely diagnosis, which of the following treatments is most likely to be useful?

**1- Graded exercise therapy**

2- Thyroxine

3- Corticosteroids

4- Nil specific

5- Iron supplementation

Q708. Glycosylated haemoglobin reflects control of diabetes over the previous:

1- 12 months

2- 9 months

**3- 2 to 3 months**

4- 1 month

5- 6 months

Q709. A 20 year old female presents as she has never started her periods. On examination you notice she is short in stature, has a webbed neck and widely spaced nipples. She has a low hairline and low set ears. Bloods reveal elevated FSH and LH levels and low oestrogen levels. What is the most likely diagnosis?

1- Pregnancy

**2- Premature ovarian failure**

3- Pituitary disease

4- Weight loss

5- Hypothyroidism

Q710. A patient who is 16 weeks pregnant and has a BMI of 35, is found to have a fasting glucose of 6.0 mmol/L. What is the next course of action?

**1- Glucose tolerance test**

2- Nil required as diabetes is excluded

3- Repeat fasting glucose at 28 weeks

4- Dip urine to ensure no ketones

5- Glucose tolerance test at 28 weeks

Q711. A 65 year old gentleman is on metformin and gliclazide however continues to have a HbA1c of 8.7%. He is not keen to commence insulin. He has previously had an episode of left ventricular failure. His BMI is 21. Which of the following should be considered next?

1- Pioglitazone

**2- Sitagliptin**

3- Insulin

4- Monitor

5- Exenatide

Q712. A 19 year old female presents with irregular periods to her GP. You notice she is overweight and has acne. She admits that she has to regularly bleach her upper lip hair and has a line of hair from her umbilicus to her pubic hair which she is embarassed about. Her bloods reveal an elevated LH:FSH ratio and testosterone is at the high end of normal and sex hormone binding globulin is low. Her fasting glucose is 6.2. Which of the following would be most useful in the treatment?

1- Orlistat

**2- Metformin**

3- Clomiphene

4- Progesterone only pill

5- Combined oral contraceptive

Q713. Which of the following is most suggestive of an adrenal tumour as the cause of cushings syndrome?

1- MRI of pituitary normal

2- Increased CRH

**3- Undetectable ACTH**

4- Increased urinary cortisol

5- Increased ACTH

Q714. A 27 year old with type 1 diabetes mellitus presents to A+E. She has been unwell for the last couple of days and has not been taking her insulin as she has not been eating. She is alert and is now feeling much better and is managing to eat and drink and is no longer vomiting, however there is ketones in her urine. Bloods reveal a glucose of 14 mmol/L, a bicarbonate of 13 mmol/L and a pH of 7.25. Which of the following is the most appropriate management option?

**1- No admission required - Monitor for few hours to ensure eating and drinking and give normal insulin dose then manage as outpatient**

2- Admit - commence IV fluids and IV insulin

3- Admit - commence IV fluids and normal subcutaneous insulin dose

4- Admit - commence oral fluids and normal subcutaneous insulin dose

5- Admit - commence oral fluids and IV insulin

Q715. A 75 year old female presents with proximal muscle weakness and bone pain. Bloods revealed a slightly low calcium, low phosphate and increase ALP and Parathyroid hormone. What is the most likely diagnosis?

1- Pagets Disease

**2- Osteomalacia**

3- Osteoporosis

4- Hyperparathyroidism

5- Bony Metastases

Q716. A 37 year old male presents due to loss of libido and erectile dysfunction. He has also noticed a small lump in his testes. On further questioning he has been suffering from headaches and tiredness over the last few months. Bloods reveal a low testosterone level and GnRH levels are also low. There is a mild elevation of prolactin. There is evidence of an elevated IGF1 levels. Which of the following is the most likely diagnosis?

**1- Pituitary Adenoma**

2- Testicular Cancer - Teratoma

3- Hypothyroidism

4- Testicular Cancer - Seminoma

5- Vascular Disease

Q717. A 64 year old male presents unwell. He has been suffering from vomiting and diarrhoea for the last few days and has been unable to eat and drink. He is normally well although does suffer from type 2 diabetes mellitus which is normally well controlled. He is currently only on metformin. On examination he is tachycardic and tachypnoeic. There is nil else of note. Bloods reveal an elevated urea (11.0 mmol/ L) and creatinine (190 mmol/ l) and a bicarbonate of 16mmol/l. An arterial blood gas reveals hydrogen ions of 55. The anion gap is elevated. Urinalysis reveals protein+ but nil else.

1- Acute Renal Failure

2- Diabetic ketoacidosis

3- Hyperosmolar Hyperglycaemic Non-Ketotic Coma

**4- Lactic Acidosis**

5- Sepsis

Q718. A 40 year old male presents with a decreased libido. His bloods reveal a low FSH, LH and testosterone level. His free T4 is 12, TSH - 3 and his calcium 2.20 mmol/L. His prolactin level was 400 U/L. Which of the following is the most likely diagnosis?

1- Non functioning Pituitary Adenoma

**2- Langerhan's Cell Histiocytosis**

3- Craniopharyngioma

4- Sarcoidosis

5- Testicular germ cell tumour

Q719. A 72 year old male has been brought to A+E by his family as he has become increasingly drowsy over the last few days. He has type 2 diabetes mellitus and was commenced on antibiotics a few days ago for a urinary tract infection. He has not been able to eat or drink much. On examination he is tachycardic and hypotensive and he looks unwell and dry. Bloods reveal a lab glucose of 35 mmol/L, bicarbonate of 17 mmol/L and a serum osmolality of 350 mosmol/Kg. His urea is 11.3 mmolL, creatinine of 220, sodium of 147 mmol/L and a potassium of 5.2mmol/L.

1- 1 litre of 0.45 NaCl over 30 mins

2- 1 litre of 0.9% NaCl over 2 hours

**3- 1 litre of 0.9% NaCl over 1 hour**

4- 1 litre of 0.45% NaCl over 1 hour

5- 1 litre of 0.9% NaCl over 30 mins

Q720. A 72 year old male has been brought to A+E by his family as he has become increasingly drowsy over the last few days. He has type 2 diabetes mellitus and was commenced on antibiotics a few days ago for a urinary tract infection. He has not been able to eat or drink much. On examination he is tachycardic and hypotensive and he looks unwell and dry. Bloods reveal a lab glucose of 35 mmol/L, bicarbonate of 17 mmol/L and a serum osmolality of 350 mosmol/Kg. His urea is 11.3 mmolL, creatinine of 220, sodium of 150 mmol/L and a potassium of 5.2mmol/L.

1- 1 litre of 1.8% NaCl over 4 hours

2- 1 litre of 0.45% NaCl over 2 hours

3- 1 litre of 0.9% NaCl over 2 hours

**4- 1 litre of 0.9% NaCl over 4 hours**

5- 1 litre of 0.45% NaCl over 4 hours

Q721. A 72 year old male has been brought to A+E by his family as he has become increasingly drowsy over the last few days. He has type 2 diabetes mellitus and was commenced on antibiotics a few days ago for a urinary tract infection. He has not been able to eat or drink much. On examination he is tachycardic and hypotensive and he looks unwell and dry. Bloods reveal a lab glucose of 35 mmol/L, bicarbonate of 17 mmol/L and a serum osmolality of 350 mosmol/Kg. His urea is 11.3 mmolL, creatinine of 220, sodium of 152 mmol/L and a potassium of 5.2mmol/L.

1- 1 litre of 0.45% NaCl over 4 hours

2- 1 litre of 0.45% NaCl with 40 mmol/L KCl over 4 hours

3- 1 litre of 0.9% NaCl with 20 mmol/L KCl over 4 hours

**4- 1 litre of 0.45% NaCl with 20 mmol/L KCl over 4 hours**

5- 1 litre of 0.9% NaCl with 40 mmol/L KCl over 4 hours

Q722. A 32 year old female presents with a lump in her neck which is deemed to be of thyroid origin. It is giving her some problems with swallowing. Her thyroid function tests are normal and an ultrasound is arranged. A radionuclide uptake scan is organised and shows a cold nodule and her FNA is suspicious of follicular carcinoma. How would you manage this patient?

1- Watch and Wait

2- Radioiodine therapy and oral replacement

3- Total Thyroidectomy

4- Thyroxine

**5- Total thyroidectomy, radioiodine therapy and oral replacement**

Q723. A patient who has hyperparathyroidism and a prolactinoma, is at increased risk of which of the following tumours?

1- Lung adenocarcinoma

**2- Pancreatic endocrine tumour**

3- Neurofibroma

4- Carcinoid

5- Colorectal carcinoma

Q724. A patient has just been treated with radioiodine therapy for hyperthyroidism. She wants to start a family. For how long after the treatment should she avoid pregnancy?

1- 2 months

2- 3 months

3- 1 month

4- 2 weeks

**5- 4 months**

Q725. A 72 year old female presents after noticing a lump in her neck. On examination there is evidence of a solitary nodule about 5 cm in size. An ultrasound is performed and reveals a solitary nodule. Which of the following is most suggestive that this a thyroid malignancy?

1- Euthyroid on bloods and evidence of retrosternal goitre

2- Euthyroid on bloods and radionuclide scan reveals a hot nodule

3- Hyperthyroid on bloods and radionuclide scan reveals hot nodule

4- Hyperthyroid on bloods and radionuclide scan reveals cold nodule

**5- Euthyroid on bloods and radionuclide scan reveals a cold nodule**

Q726. If a patient is symptomatic with thyrotoxicosis during pregnancy, how should this be managed?

1- Radioiodine therapy

2- Thyroidectomy

3- Monitor

**4- Carbimazole**

5- Block and replace

Q727. A patient is commenced on carbimazole for hyperthyroidism. How often should there TFTs be measured for dose alteration?

1- 6 monthly

**2- Monthly**

3- 6 weekly

4- Weekly

5- 2 monthly

Q728. What warning would you give to a pregnant patient if there is evidence of positive thyroid autoantibodies but whose TFTs reveal she is euthyroid?

1- No warning required

**2- Increased risk of spontaneous abortion**

3- High risk of neonatal hypothyroidism

4- Increased risk of thyrotoxic storm whilst pregnant

5- Increased risk of myxoedema coma during pregnancy

Q729. A patient suffering from hypothyroidism has her dose increased and has her bloods checked one week later. Her TSH and free T4 is elevated. What should you do with the dose of medication?

1- No change in dose and repeat bloods in 3 months

2- Increase dose

3- No change in dose and repeat bloods in one week

4- Decrease dose

**5- No change in dose and repeat bloods in another 3 weeks**

Q730. Which HLA subtype is associated with Graves disease?

1- HLA DR5

2- HLA B27

**3- HLA DR3**

4- HLA Cw

5- HLA DQ2

Q731. A 40 year old male presents with galactorrhoea. He is otherwise fit and well and is not on any medication. He is found to have a prolactin level of over 2800 mU/L. An MRI is performed and reveals a lesion in the pituitary of 0.8cm. What is the treatment of choice?

1- Surgery

2- Radiotherapy

3- Only monitoring required

4- Bromocriptine

**5- Cabergoline**

Q732. If a patient with a microprolactinoma who is being treated with bromocriptine is planning to become pregnant, what advice should be given?

1- Continue bromocriptine at reduced dose throughout pregnancy

**2- Must stop bromocriptine once pregnant**

3- Must stop bromocriptine once pregnant and have regular visual field testing and MRIs

4- Continue bromocriptine at increased dose throughout pregnancy

5- Continue bromocriptine at same dose throughout pregnancy

Q733. What is the five year risk of progression of a patient with impaired glucose tolerance for the development of type 2 diabetes mellitus?

1- 50%

2- 1 to 5%

3- 5 to 10%

**4- 20 to 30%**

5- 10 to 15%

Q734. Which of the following can differentiate between cranial diabetes insipidus and nephrogenic diabetes insipidus?

1- Increased plasma osmolality during water deprivation test

2- Weight loss during water deprivation test

3- Dilute urine despite water deprivation

**4- Desmopressin leads to more concentrated urine**

5- Desmopressin does not lead to more concentrated urine

Q735. What is the future risk of a child, with type 1 diabetes mellitus, identical twin developing diabetes?

1- 75 to 90%

2- 100%

3- 10 to 20%

**4- 30 to 50%**

5- 0 to 10%

Q736. A 58 year old female with type 2 diabetes mellitus presents with a swollen and deformed left ankle and foot. There was no clear history of trauma. It is mildly painful. On examination the foot appeared flat and her ankle is red and hot and appeared deformed. There appears to be dislocation of the joint and osteoarthritis. Inflammatory markers are normal and she is systemically well. What is the most likely diagnosis?

1- Fracture

2- Osteomyelitis

**3- Charcots joint**

4- Dislocation

5- Gout

Q737. If a patient has previously had gestational diabetes, what is an appropriate screening method?

1- Fasting glucose at 16 to 18 weeks

**2- Glucose tolerance test at 16 to 18 weeks, further OGTT at 28 weeks if normal**

3- Glucose tolerance test at 6 to 8 weeks, further OGTT at 18 weeks if normal

4- Fasting glucose at 6 to 8 weeks

5- Glucose tolerance test at 24 to 28 weeks

Q738. What is the estimated prevalence of microalbuminuria in patients with type 1 diabetes after 30 years?

**1- 40%**

2- 30%

3- 20%

4- 50%

5- 10%

Q739. In a patient with glucagonoma, apart from hyperglycaemia, what other finding might you expect to find on bloods?

1- Deranged LFTs

**2- Normochromic, normocytic anaemia**

3- Hypochromic, microcytic anaemia

4- Raised CK

5- Acute renal failure

Q740. After the age of 40 patients with acromegaly should be offered which of the following?

1- Diabetes screening

2- Echocardiogram

3- ECG

**4- Colonoscopy**

5- Sleep studies

Q741. In a caucasian patient, with poorly controlled type 2 diabetes mellitus and a BMI of 50, who is already on maximal metformin and sulphonylurea, which of the following is likely to be the most appropriate drug to add to his current management?

1- Insulin

**2- Exenatide**

3- Pioglitazone

4- Sitagliptin

5- Acarbose

Q742. A 63 year old gentleman with type 2 diabetes mellitus was previously well controlled on metformin and gliclazide. However his recent HbA1c was 8.2% and he has been struggling with his blood sugars. He is a lorry driver. He is on maximum dose of metformin and gliclazide. What treatment option would be least appropriate in this case?

1- Pioglitazone

**2- Exenatide**

3- Vildagliptin

4- Sitagliptin

5- Insulin

Q743. A patient presents with weight loss, polyuria and polydipsia. He is found to have a normochromic, normocytic anaemia and high fasting glucose. He is also complaining of diarrhoea. On examination there is evidence of stomatitis and erythematous rash in his groins and and on his legs. There is areas of hyperpigmentation. He states the lesion began a couple of weeks ago beginning as flat rings then blistered and were itchy and painful. Which investigation will be most useful for the diagnosis?

1- Somatostatin levels

2- C peptide levels

3- Haematinics

**4- Glucagon levels**

5- Glucose tolerance test

Q744. A 48 year old female is suffering from oligomenorrhoea. She is also complaining of tiredness, dizziness, weight gain, cold intolerance, constipation, hair and nail changes and is found to have low potassium and glucose on bloods. Her FSH, LH and oestrogen levels are low. What is the most likely cause of her amenorrhoea?

1- Primary Ovarian failure

**2- Panhypopituitarism**

3- Addisons

4- Polycystic Ovarian syndrome

5- Hypothyroidism

Q745. An 18 year old presents with amenorrhoea for the last 6 months. She is asymptomatic otherwise. She exercises excessively and appears underweight with a BMI of 14. What is the most likely diagnosis?

1- Coeliac disease

2- Type 1 Diabetes Mellitus

3- Primary Ovarian failure

**4- Anorexia Nervosa**

5- Hypothyroidism

Q746. Which drug, in addition to his metformin and gliclazide, should be given to a patient with type 2 Diabetes Mellitus with a high urinary albumin excretion?

1- Bisoprolol

2- Insulin

3- Losartan

4- Aspirin

**5- Ramipril**

Q747. A patient who has been stable on thyroxine for hypothyroidism for a long time is found to have a high TSH and normal free T4. What is the most likely cause?

**1- Poor compliance**

2- Normal in thyroxine treatment

3- Inadequate dose

4- Low FT3

5- Over replacement

Q748. A 52 year old male of Asian descent is suffering from lethargy, bone pain and is complaining of weakness with difficulty getting up from chairs and climbing stairs. Bloods reveal a low calcium and vitamin D level and an elevated alkaline phosphatase. What is the most likely diagnosis?

1- Dermatomyositis

2- Hyperparathyroidism

3- Pagets Disease

4- Hypothyroidism

**5- Osteomalacia**

Q749. A 73 year old female suffers a pathological fracture. She has been complaining of constipation, anorexia, thirst and urinary frequency. SHe is found to be hypercalcaemic, hypophosphataemic and a raised PTH. What is the most likely diagnosis?

1- Osteomalacia

2- Pagets disease

3- Bony metastases

**4- Primary Hyperparathyroidism**

5- Myeloma

Q750. Which of the following antihypertensives is most likely to lead to hypercalcaemia?

1- Ramipril

2- Amlodipine

3- Losartan

**4- Bendroflumethiazide**

5- Atenolol

Q751. What is the future risk of a child, with type 1 diabetes mellitus, identical twin developing diabetes?

**1- 30 to 50%**

2- 100%

3- 0 to 10%

4- 75 to 90%

5- 10 to 20%

Q752. A 25 year old male presents with fatigue, nausea and weight loss. He has noticed on several occasions feeling dizzy when standing up and has fainted. He is found to have a postural drop in his blood pressure. A few weeks later he is brought to A+E collapsed, hypotensive with a low BM. What treatment should be given?

1- IV dextrose

2- IM glucagon

3- Thyroxine

**4- IV Hydrocortisone**

5- IV fluids

Q753. A patient who has confirmed Cushings disease following a low dose dexamethasone suppression test, is found to have an incomplete response to a high dose dexamethasone suppression test but shows an increased cortisol level following administration of corticotropin releasing hormone. What is the most likely definitive diagnosis?

1- Conns Syndrome

**2- Cushings disease**

3- Exogenous steroids

4- Ectopic ACTH secretion

5- Adrenal adenoma

Q754. A patient presents with a hard, fixed , painless woody goitre. She is having some difficulty with swallowing. She is otherwise asymptomatic. A thyroid ultrasound is performed and reveals a homogeneously hypoechoic gland. She is euthyroid. A biopsy is organised reveals dense infiltration. What is the most likely diagnosis?

1- Hashimotos thyroiditis

2- Anaplastic carcinoma

3- De Quervain thyroiditis

**4- Riedels thyroiditis**

5- Thyroid lymphoma

Q755. A 52 year old patient who has recently been diagnosed with lung cell cancer present with weight gain (mainly around the face and trun k) , bruising easily, striae, and his skin appearing darker. On examination he has a moon face, buffalo hump and he is hypertensive. His bloods reveal hypokalaemia. What is the most likely diagnosis?

**1- Ectopic ACTH secretion**

2- Addisons disease

3- Cushings disease

4- Hypothyroidism

5- Exogenous steroids

Q756. A 19 year old female presents with irregular periods to her GP. You notice she is overweight and has acne. She admits that she has to regularly bleach her upper lip hair and has a line of hair from her umbilicus to her pubic hair which she is embarrassed about. Her bloods reveal an elevated LH:FSH ratio and testosterone is at the high end of normal and sex hormone binding globulin is low. Her fasting glucose is 6.2. What Is the most likely diagnosis?

1- Exogenous testosterone

2- Ovarian hyperthecosis

**3- Polycystic ovarian syndrome**

4- Androgen secreting tumour

5- Late onset congenital adrenal hyperplasia

Q757. A 28 year old male presents with very non specific features. He had not felt well for several months with tiredness, anorexia, nausea and weight loss. He also felt dizzy on standing and noticed his skin including his mucosa becoming darker. His bloods revealed a hyponatraemia and hyperkalaemia. What investigation should be performed to confirm the diagnosis?

**1- Short Synacthen test**

2- ACTH level

3- Random cortisol

4- Thyroid function tests

5- Low dose dexamethasone suppression test

Q758. If a patient has a calcium of 3.5 mmol/L with a T score of -2.7, secondary to hyperparathyroidism, what is the best management?

1- Watch and Wait

**2- Surgery**

3- Block and Replace

4- HRT or raloxifene

5- Bisphosphonates

Q759. A 37 year old male has difficult to control hypertension despite being on three antihypertensives. His bloods reveal hypokalaemia, low renin level, high aldosterone and a 24 hour aldosterone excretion was elevated. What is the most likely diagnosis?

1- Carcinoid syndrome

2- Cushings syndrome

3- Poor compliance

**4- Conns syndrome**

5- Essential Hypertension

Q760. A 33 year old woman presents with amenorrhoea and has noticed reduced axillary and pubic hair. She has also noticed a change in her vision. On examination she has a bitemporal hemianopia. Her prolactin levels are over 2000mg/L. What is the most likely diagnosis?

1- Acromegaly

2- Diabetes

**3- Macroprolactinoma**

4- PCOS

5- Microprolactinoma

Q761. A 25 year old gentleman presents to his GP. He is concerned as he has small testes and has a low libido and impotent. He also complains of having breasts despite him being slim and does not need to shave often. What is the most likely diagnosis?

**1- Klinefelters syndrome**

2- Exogenous oestrogen

3- Complete androgen insensitivity syndrome

4- Turners Syndrome

5- Fragile X syndrome

Q762. A 62 year old female presents with lethargy, feeling depressed, intolerant to cold and weight gain and constipation. On examination she is bradycardic and her hands, feet and face appear puffy. There is no evidence of a goitre. She is found to have raised TSH and low free T4. Her antithyroid peroxidase antibodies are positive. What is the most likely diagnosis?

**1- Atrophic thyroiditis**

2- Iodine deficiency

3- Hypopituitarism

4- TSH deficiency

5- Hashimotos thyroiditis

Q763. A 65 year old was diagnosed with type 2 diabetes mellitus the previous year. He has ongoing problems with biliary colic. He has recently lost weight and is complaining of loose malodorous stools up to 5 times a day. He is suffering from nausea and abdominal pain. He is found to be anaemic. What is the most likely diagnosis?

1- Insulinoma

2- Gastrinoma

3- VIPoma

4- Glucagonoma

**5- Somatostatinoma**

Q764. A 48 year old female is suffering from oligomenorrhoea. She is also complaining of tiredness, dizziness, weight gain, cold intolerance, constipation, hair and nail changes and is found to have low potassium and glucose on bloods. Her FSH, LH and oestrogen levels are low. What is the most likely cause of her amenorrhoea?

**1- Panhypopituitarism**

2- Addisons

3- Hypothyroidism

4- Primary ovarian failure

5- Polycystic ovarian syndrome

Q765. A 65 year old male with lung cancer is found to have symptomatic hyponatraemia with a sodium of 123mmol/l. Further investigation reveals this is most likely due to SIADH. He is put on fluid restriction however unfortunately after one week his sodium is only 125mmol/l. Which of the following should be considered next for management?

1- Desmopressin

2- IV saline 1.8%

**3- Demclocycline**

4- IV saline 0.9%

5- Slow Sodium

Q766. A 24 year old nurse is brought to A+E. She has collapsed. She had told people prior to this she was feeling nauseous, anxious, sweaty and having a headache. Her BM is 1.2 mmol/L. How would you differentiate this being self administration of insulin rather than an insulinoma?

1- BM not responding to IV dextrose

2- High insulin level

3- C peptide level high

4- Bruising of skin suggesting injection

**5- C peptide level normal**

Q767. A 25 year old patient is suffering from hypertension which has been very difficult to control. Bloods reveal metabolic acidosis, hyperkalaemia and low renin and aldosterone levels. What is the most likely diagnosis?

1- Bartters syndrome

2- Cushings disease

3- Conns syndrome

**4- Gordons syndrome**

5- Addisons disease

Q768. What is the most appropriate test to perform if you suspect an insulinoma?

1- Insulin Stress Test

2- Fasting glucose and insulin levels

3- Serum 3 hydroxybutyrate levels

**4- Fasting glucose, insulin and c peptide levels**

5- Glucose Tolerance Test

Q769. A 25 year old patient presents with polyuria and polydipsia. A fasting glucose is 9mmol/l. She states that she has a strong family history of diabetes with her father, grandfather and 2 of her uncles have diabetes who all developed it at a young age. Her BMI is 23. She is commenced on gliclazide and gains very good control. What is the most likely diagnosis?

**1- Maturity onset diabetes of the young type 3**

2- Type 1 Diabetes Mellitus

3- Gestational Diabetes

4- Maturity onset diabetes of the young type 2

5- Type 2 Diabetes Mellitus

Q770. A 19 year old female presents with recurrent episodes of sweating, palpitations, dizziness and weakness. These episodes can occur at any time of the day but she has noticed them particularly at night. Her mother has type 1 diabetes mellitus. You admit her for a 48 hour fasting glucose. 12 hours after admission her glucose is noted to be 2.8 mmol/L and her insulin levels are greatly elevated. Which of the following investigation should be performed to confirm the diagnosis?

1- Proinsulin

**2- C-peptide level**

3- Insulin Tolerance Test

4- Insulin Growth Factor 1 levels

5- Glucose Tolerance Test

Q771. A 60 year old male presents with headaches. He has noticed he has gained weight over the last few months. On examination he appears to have very large hands and a prominent jaw. He is hypertensive and appears to be sweating profusely. What is the most likely diagnosis?

**1- Acromegaly**

2- Cushing's Syndrome

3- Type 2 Diabetes Mellitus

4- Insulinoma

5- Cushing's Disease

Q772. A 59 year old male with obesity and hypertension has been found to have a fasting glucose of 6.9mmol/l. Which of the following is the most likely diagnosis?

1- Normal

2- Type 2 Diabetes Mellitus

3- MODY

4- Type 1 Diabetes Mellitus

**5- Impaired Glucose Tolerance**

Q773. What cells are responsible for the secretion of insulin?

1- D cells of islets

2- C cells of islets

3- Alpha cells of the islets of Langerhans

**4- Beta cells of islets of Langerhans**

5- Adipocytes

Q774. What is the most appropriate test to perform if you suspect an insulinoma?

1- Serum 3 hydroxybutyrate levels

**2- Fasting glucose, insulin and c peptide levels**

3- Glucose Tolerance Test

4- Insulin Stress Test

5- Fasting glucose and insulin levels

Q775. What is more indicative of Pagets disease rather than metastatic disease?

1- High levels of a tumour marker

2- Xray shows both sclerotic and lytic lesions

3- Hypercalcaemia

4- History of a malignancy

**5- Markedly raised ALP**

Q776. Which of the following features can be seen in general in thyrotoxicosis and is not specific to Graves Disease?

**1- Lid Lag**

2- Thyroid Acropachy

3- Exophthalmos

4- Ophthalmoplegia

5- Pretibial Myxoedema

Q777. Which of the following features can be seen in general in thyrotoxicosis and is not specific to Graves Disease?

1- Pretibial Myxoedema

2- Exophthalmos

3- Thyroid Acropachy

4- Ophthalmoplegia

**5- Lid Lag**

Q778. A patient who has hyperparathyroidism and a prolactinoma, is at increased risk of which of the following tumours?

1- Carcinoid

2- Lung Adenocarcinoma

3- Colorectal cancer

**4- Pancreatic endocrine tumour**

5- Neurofibroma

Q779. A 25 year old female presents with diarrhoea for approximately one month. She describes this as watery with no evidence of blood or mucous. She does not complain of abdominal pain, vomiting or any other symptoms. She has not had anything unusual to eat and no one else is suffering from these symptoms. On examination she has decreased skin turgor, has a heart rate of 100 and looks dehydrated. Her bloods reveal hypokalaemia. What is the most likely diagnosis?

1- Ulcerative Colitis

2- Gastroenteritis

3- Phaeochromocytoma

4- Zollinger Ellison syndrome

**5- VIPoma**

Q780. A 52 year old patient who has recently been diagnosed with lung cell cancer present with weight gain (mainly around the face and trun k) , bruising easily, striae, and his skin appearing darker. On examination he has a moon face, buffalo hump and he is hypertensive. His bloods reveal hypokalaemia. What is the most likely diagnosis?

**1- Ectopic ACTH secretion**

2- Exogenous steroids

3- Hypothyroidism

4- Addisons disease

5- Cushings disease

Q781. A 50 year old male presents with weight gain mainly around the face and trunk. He has also noticed his arms and legs feeling weak especially when trying to get up from a seat. He has noticed he is easily bruising and there is evidence of striae. He is found to be hypertensive and hypokalaemic. Which investigation should be performed initially?

1- Urinary catecholamines

2- High dose dexamethasone

3- ACTH measurement

4- CT Head and abdomen

**5- Low dose dexamethasone suppression test**

Q782. A 56 year old male describes vague right sided abdominal discomfort. He is also having intermittent spells of flushing, diarrhoea, palpitations and wheezing. What investigation is likely to give the diagnosis?

1- VIP levels

**2- Urinary 5hydroxyindoleacetic acid collection**

3- Urinary catecholamine collection

4- Random cortisol

5- CT abdomen

Q783. Which of the following is not a feature of Metabolic Syndrome?

1- Elevated fasting glucose

2- Central obesity

3- Elevated triglycerides

4- Hypertension

**5- Elevated HDL**

Q784. Which drug, in addition to his metformin and gliclazide, should be given to a patient with type 2 Diabetes Mellitus with a high urinary albumin excretion?

1- Losartan

2- Bisoprolol

3- Aspirin

4- Insulin

**5- Ramipril**

Q785. For a glucose tolerance test how much glucose is used?

1- 50 g

2- 25g

3- 100 g

4- 125g

**5- 75 g**

Q786. Which of the following is most likely to lead to a pericardial effusion?

1- Panhypopituitarism

2- Type 2 Diabetes Mellitus

3- Graves Disease

4- Hyperthyroidism

**5- Hypothyroidism**

Q787. A patient with type 2 diabetes mellitus has been trying to control their cholesterol with an improved diet, however his repeat bloods reveal an LDL of 5.0 mmol/L. How do you manage this?

1- Ezetimibe

2- Lifestyle advice

**3- Simvastatin**

4- Another 6 month trial of diet control

5- A Fibrate

Q788. An 18 year old presents with amenorrhoea for the last 6 months. She is asymptomatic otherwise. She exercises excessively and appears underweight with a BMI of 14. What is the most likely diagnosis?

**1- Anorexia nervosa**

2- Primary ovarian failure

3- Hypothyroidism

4- Type 1 Diabetes Mellitus

5- Coeliac disease

Q789. A 54 year old gentleman who is a smoker presents with a dry cough and weight loss. He is also constipated with some abdominal pain has urinary frequency and is feeling fatigued and depressed. He is found to have a calcium of 3.0 mmol/l. What is the most likely diagnosis?

1- Thyrotoxicosis

**2- PTH like peptide secretion secondary to malignancy**

3- Addisons

4- Hyperparathyroidism

5- Sarcoidosis

Q790. A 30 year old female who has been recently unwell with a flu like illness presents with a painful and tender swelling in her neck. She is feeling anxious, intolerant to heat and suffering from palpitations. Her TSH is reduced and T4 is elevated. What is the most likely diagnosis?

1- Hashimoto thyroiditis

2- Pharyngitis

**3- De Quervains thyroiditis**

4- Multinodular goitre

5- Thyroid malignancy

Q791. When investigating Hyperthyroidism, which investigation should be performed to confirm the underlying diagnosis of Graves disease?

1- Raised T3 levels

2- Ultrasound of neck

3- Raised CRP and ESR

**4- (((Radioisotope sca n) ))**

5- Low TSH levels and high T4 levels

Q792. Which of the following is not a feature of Phaeochromocytoma?

1- Hypertension

2- Anxiety

3- Headache

**4- Diarrhoea**

5- Palpitations

Q793. A 24 year old male who is known to have Addisons disease has been unwell with the flu. He is brought to A and E as he has been found collapsed. His BM is 3.9. How would you manage this patient initially?

1- Dopamine

2- IV dextrose

3- IV fluids

4- IV hydrocortisone

**5- IV fluid resuscitation and IV steroids**

Q794. How would you investigate a patient in the first instance if you suspected Addisons disease?

**1- Short synacthen test**

2- Low dose dexamethasone suppression test

3- ACTH level

4- High dose dexamethasone test

5- Urinary cortisol

Q795. Which of the following features would suggest an ectopic source of ACTH as the underlying cause of Cushings syndrome?

1- Hypertension

2- Central obesity

**3- Hyperpigmentation**

4- Cough

5- Bowel habit change

Q796. A patient who has confirmed Cushings disease following a low dose dexamethasone suppression test, is found to have an incomplete response to a high dose dexamethasone suppression test but shows an increased cortisol level following administration of corticotropin releasing hormone. What is the most likely definitive diagnosis?

1- Exogenous steroids

**2- Cushings disease**

3- Adrenal adenoma

4- Conns syndrome

5- Ectopic ACTH secretion

Q797. A patient is diagnosed with a microadenoma which has lead to acromegaly. How should this patient be managed?

**1- Transsphenoidal surgery**

2- Radiotherapy

3- Bromocriptine

4- Pegvisomant

5- Octreotide

Q798. If you suspect a patient has acromegaly, what investigation should be utilised initially to confirm the diagnosis?

1- MRI of pituitary

**2- IGF1 levels**

3- Glucose tolerance test

4- Random growth hormone level

5- Perimetry

Q799. How should a male with hypogonadotrophic hypogonadism be managed?

**1- IM testosterone plus GnRH when fertility required**

2- Oral testosterone plus GnRH when fertility required

3- GnRH analogues

4- Gonadotrophins

5- Nil

Q800. Which of the following side effects of growth hormone replacement makes it attractive to some athletes?

1- Reduced cholesterol

2- Carpal tunnel syndrome

**3- Increased lean body mass**

4- Fluid retention

5- Reduced risk of diabetes

Q801. In a pituitary adenoma which hormone is likely to be present in elevated amounts?

1- FSH

2- ACTH

3- TSH

4- GH

**5- Prolactin**

Q802. Which of the following suggests primary hyperparathyroidism as the cause of hypercalcaemia?

1- Xray showing mix of sclerotic and lytic lesions

2- Renal calculi

3- Elevated urinary calcium

**4- Normal to high PTH levels**

5- High phosphate levels

Q803. Which substance can be secreted by a tumour which leads to hypercalcaemia?

1- PTH

2- Calcitonin

**3- PTH like peptide**

4- ACTH

5- Vitamin D

Q804. Which of the following is not a feature of MEN type 1?

1- Prolactinoma

2- Parathyroid hyperplasia

3- VIPoma

**4- Phaeochromocytoma**

5- Zollinger Ellison syndrome

Q805. Which of the following suggests SIADH?

1- Sodium of 125 mmol/l

2- Urine osmolality of 50 mOsm/kg and plasma osmolality of 260 mOsm/kg

3- Urine osmolality of 50 mOsm/kg and plasma osmolality of 280 mOsm/kg

4- Urinary sodium of 20 mmol/L

**5- Urine osmolality of 500 mOsm/kg and plasma osmolality of 260 mOsm/kg**

Q806. What is the mechanism of action of meglitinides?

1- Weight loss

2- PPARgamma agonist

**3- Stimulates insulin release from beta cells by closure of K ATP channel**

4- Stimulates insulin release form a cell by closure of K ATP channel

5- Reduced peripheral insulin resistance

Q807. What is the future risk of a child, with type 2 diabetes mellitus, identical twin developing diabetes?

**1- 50%**

2- 100%

3- 20%

4- 10%

5- 75%

Q808. What should a healthy diet comprise?

1- Daily calorie intake should comprise carbohydrate 25%, protein 15% and fat 60%

2- Daily calorie intake should comprise carbohydrate 35%, protein 15% and fat 50%

3- Daily calorie intake should comprise carbohydrate 30%, protein 30% and fat 40%

4- Daily calorie intake should comprise carbohydrate 15%, protein 55% and fat 30%

**5- Daily calorie intake should comprise carbohydrate 55%, protein 15% and fat 30%**

Q809. A 68 year old male with type 2 diabetes mellitus, for which he takes metformin, has been unwell for the last few days. He has now been brought to A and E as he is drowsy and confused. His bloods reveal a ARF, glucose of 9 mmol/l and a metabolic acidosis with a high anion gap. How would you manage this patient?

1- IV dextrose

**2- IV fluids**

3- Insulin sliding scale

4- IV hydrocortisone

5- Sodium bicarbonate

Q810. An 18 year old female present with symptoms of hypothyroidism. She has a short stature, webbed neck and has not yet commenced menstruation. Karyotyping is performed and reveals 45 X0. What is the most likely diagnosis?

1- Hashimotos Thyroiditis

2- Klinefelters syndrome

3- Hypothyroidism

**4- Turners Syndrome**

5- Noonans syndrome

Q811. A patient presents with a hard, fixed , painless woody goitre. She is having some difficulty with swallowing. She is otherwise asymptomatic. A thyroid ultrasound is performed and reveals a homogeneously hypoechoic gland. She is euthyroid. A biopsy is organised reveals dense infiltration. What is the most likely diagnosis?

1- De Quervain thyroiditis

2- Anaplastic carcinoma

3- Hashimotos thyroiditis

**4- Riedels thyroiditis**

5- Thyroid Lymphoma

Q812. A 28 year old female presents with weight loss, palpitations, heat intolerance and anxiety. She is a health fanatic and takes supplements including kelp. Her bloods reveal a TSH which is very low and there is no evidence of autoantibodies. What is the likely cause of the picture seen here?

1- Hashimotos Disease

2- De Quervain thyroiditis

3- Exogenous thyroxine

4- Graves Disease

**5- Excessive iodine ingestion**

Q813. How does the PPARgamma agonist, pioglitazone cause its effects?

1- Reduce peripheral resistance

2- Heterodimer formation with the retinoid X receptor which binds to a promoter region and downregulates transcription of genes

**3- Heterodimer formation with the retinoid X receptor which binds to a promoter region and upregulates transcription of genes**

4- Activate G linked proteins and upregulate genes

5- Activate G linked proteins and down regulate genes.

Q814. A 25 year old male who appears to have Marfans syndrome presents with headache, anxiety, weight loss and palpitations. He is found to be hypertensive. He also has a swelling in his neck. There is some evidence of neuromas. A 24 hour urinary catecholamine confirms phaeochromocytoma. What is the most likely underlying diagnosis?

1- MEN type 2A

**2- MEN type 2b**

3- Phaeochromocytoma

4- MEN type 1

5- Medullary thyroid carcinoma.

Q815. A 38 year old female has difficult to control hypertension. She has intermittently suffered from headaches and anxiety. She is due to undergo abdominal surgery. Given the underlying diagnosis, which treatment should be performed before her surgery?

**1- Introduction of an irreversible alpha blocker**

2- IV fluid administration

3- Introduction of a beta blocker

4- Increase dosage of antihypertensives

5- Nil required

Q816. What investigation gives a definitive diagnosis of acromegaly?

1- Growth hormone levels

2- Low dose dexamethasone suppression test

3- IGF1 levels

4- Serum cortisol

**5- Glucose tolerance test**

Q817. What test is most sensitive for carcinoid syndrome?

1- Somatostatin

2- LFTs

**3- Plasma Chromogranin A**

4- Urinary 5 HIAA

5- AFP

Q818. Which of the following conditions would not be a contraindication to the combined oral contraceptive pill?

1- Pulmonary hypertension

2- Clotting disorders

3- Dubin Johnson Syndrome

**4- Hyperthyroidism**

5- Severe migraines

Q819. Which of the following are post menopausal woman likely to develop?

1- Reduced risk of Osteoporosis

**2- Increased risk of osteoporosis**

3- Reduced risk of Alzheimers disease

4- Reduced likelihood of IHD

5- Reduced thrombotic risk

Q820. What is the most likely cause of erectile dysfunction in a 32 year old gentleman?

1- Peripheral vascular disease

2- Alcohol

3- Type 2 Diabetes mellitus

**4- Psychological**

5- Cold weather

Q821. How would you manage a patient with Type 1 Diabetes mellitus who has a BM of 1.9 mmol/L, who is drowsy?

**1- 50% dextrose**

2- IM glucagon

3- Lucozade

4- Biscuit

5- IV hydrocortisone

Q822. In Von Hippel Lindau disease, what is the most common cause of death?

1- Pancreatic neuroendocrine tumours

2- CNS Haemangioblastoma

**3- Renal cell carcinoma**

4- Hypertension

5- Phaeochromocytoma

Q823. Which of the following results would you not expect to see in a patient with anorexia nervosa?

1- Low LH and FSH

**2- Low GH levels**

3- Low GnRH

4- Reduced T3 levels

5- Increased cortisol

Q824. How would you manage a patient initially with SIADH?

1- IV dextrose

**2- Fluid restriction**

3- Demeclocycline

4- IV 0.9% Saline

5- IV 1.8% saline

Q825. Which of these should not be utilised in the management of a thyrotoxic storm?

1- Beta blockers

2- Chlorpromazine

**3- Lugols Solution followed by carbimazole or propylthiouracil**

4- Corticosteroids

5- Carbimazole or Propylthiouracil followed by Lugols solution

Q826. What advice should be given to a patient following radioiodine therapy?

**1- Avoid close contact with pregnant woman and children for several days**

2- No blood monitoring required post radioiodine therapy

3- Avoid becoming pregnant for 1 to 3 months following treatment

4- Can continue to breast feed

5- Continue antithyroid treatment up until day of treatment

Q827. A 42 year old male presents with intermittent headaches, palpitations, anxiety , tremor and sweating. These attacks have been becoming more frequent and he is hypertensive. A 24 hour urine shows raised catecholamines. How should you manage this patient?

1- Surgery

**2- Alpha blocker, followed by beta blocker once established then surgery**

3- Beta blocker

4- Alpha blocker

5- Antidepressant

Q828. A 35 year old female with HIV on treatment is found to have a raised glucose and raised triglycerides. Her face and arms appear thin whilst there is increased deposition of fat around her abdomen and neck. What is the most likely diagnosis?

**1- Lipodystrophy**

2- Cryptosporidium

3- Diabetes Mellitus

4- Malignancy

5- AIDS

Q829. What is the mechanism of action of orlistat?

**1- Inhibits pancreatic and gastric lipase thus reducing fat absorption**

2- Antidepressant

3- Suppresses appetite

4- Inhibits proteases thus reducing fat absorption

5- Inhibits cholesterol absorption

Q830. A 72 year old male with a very poor diet and history of alcohol excess, presents with confusion, diarrhoea and photosensitive dermatitis. On examination there is evidence of stomatitis and glossitis. What is the most likely diagnosis?

1- Lewy body dementia

**2- Pellagra**

3- Thiamine deficiency

4- Inflammatory bowel disease

5- Acute intermittent porphyria

Q831. A patient with type 1 diabetes mellitus, who is a heavy smoker, presents after noticing a larger ulcer on her foot. On examination there is loss of sensation to the foot however it is warm and well perfused with peripheral pulses evident. What is the most important contributing factor to the development of the ulcer in this case?

1- Peripheral vascular disease

2- Charcots joint

3- Vasculitis

**4- Neuropathy**

5- Buergers disease

Q832. A 22 year old who is marfanoid in appearance and of low intellect presents with a DVT. You suspect there may be an underlying diagnosis of homocystinuria. What is the enzyme defect in homocystinuria?

1- DNAase

2- Pancreatic lipase

3- HMG CoA reductase

4- Homocysteine reductase

**5- Cystathionine synthetase**

Q833. A 25 year old had his cholesterol measured. This revealed very high levels of VLDL and although HDL and LDL were normal there was also an increase in the triglycerides. What is the most likely diagnosis?

1- Dysbetalipoproteinaemia

2- Mixed hyperlipidaemia

3- Type 1 hyperlipidaemia

**4- Familial hypertriglyceridaemia**

5- Familial hypercholesterolaemia

Q834. A 25 year old male presents with fatigue, nausea and weight loss. He has noticed on several occasions feeling dizzy when standing up and has fainted. He is found to have a postural drop in his blood pressure. What is the most likely diagnosis?

1- Malignancy

2- Depression

3- Hyperthyroidism

4- Hypothyroidism

**5- Addisons disease**

Q835. A 28 year old who has previously suffered a post partum haemorrhage presents with fatigue, constipation, hair and nail changes, amenorrhoea, loss of axillary and pubic hair and dizziness. What is the most likely diagnosis?

1- Prolactinoma

2- Cushings syndrome

3- Hyperthyroidism

4- Hypothyroidism

**5- Sheehans syndrome**

Q836. A patient post thyroidectomy is found to have a calcium of 2.0 mmol/L. What is the most likely cause?

1- Low vitamin D

2- Primary hypoparathyroidism

**3- Temporary hypoparathyroidism likely secondary to trauma at surgery**

4- Renal failure

5- Pseudoparathyroidism

Q837. A 68 year old female has poor compliance with her normal medication. She is brought to A+E as she is drowsy. On examination she is overweight, hypothermic and bradycardic. There is no evidence of focal neurology. She is hyponatraemic and her glucose is within the normal range. What is the most likely diagnosis?

1- Stroke

2- Addisons disease

**3- Myxoedema coma**

4- Thyrotoxic storm

5- Diabetic ketoacidosis

Q838. A 20 year old female presents with amenorrhoea. She has recently began training for a swimming event and has been on a strict diet and lost weight with her BMI now being 16. She is otherwise well, is on no medication and is not pregnant. Blood results are normal and sex hormone analysis is awaited. What is the most likely cause of her amenorrhoea?

1- Contraception

2- Pregnancy

3- Premature ovarian failure

**4- Weight loss**

5- Polycystic ovarian syndrome

Q839. A 19 year old female presents with irregular periods to her GP. You notice she is overweight and has acne. She admits that she has to regularly bleach her upper lip hair and has a line of hair from her umbilicus to her pubic hair which she is embarrassed about. Her bloods reveal an elevated LH:FSH ratio and testosterone is at the high end of normal and sex hormone binding globulin is low. Her fasting glucose is 6.2. What Is the most likely diagnosis?

1- Ovarian hyperthecosis

2- Exogenous testosterone

3- Late onset congenital adrenal hyperplasia

**4- Polycystic ovarian syndrome**

5- Androgen secreting tumours

Q840. Which of the following drugs is the most likely to cause gynaecomastia?

**1- Spironolactone**

2- Omeprazole

3- Thyroxine

4- Atenolol

5- Citalopram

Q841. A 26 year old female presents to her GP with fatigue. This has been a problem now for several months since she had viral illness. Her exercise tolerance has greatly decreased and she feels very fatigued following any exertion. She has intermittently been suffering from headaches and is sleeping about 12 hours a day but still feels unrefreshed. She also complains of back pain with no clear preciptating factor, Examination and blood tests are normal. What is the most likely diagnosis?

**1- Chronic fatigue syndrome**

2- Addisons Disease

3- Type 2 Diabetes mellitus

4- Depression

5- SLE

Q842. A 68 year old female has suffered several fractures over the last year and is found to have a T score of minus 2.6 on dexa scan. What is the best management for this patient?

1- Initiate calcium supplementation

**2- Bisphosphonates**

3- Calcium and vitamin D supplementation

4- Initiate HRT

5- Initiate calcium and vitamin D therapy

Q843. A 62 year old with type 2 diabetes mellitus complains of dizziness on standing up. He also complains of diarrhoea, vomiting and impotence. What is the most likely diagnosis?

1- Peripheral neuropathy

2- Hypoglycaemia

**3- Autonomic neuropathy**

4- Inflammatory bowel disease

5- Medication related

Q844. A 25 year old gentleman presents to his GP. He is concerned as he has small testes and has a low libido and impotent. He also complains of having breasts despite him being slim and does not need to shave often. What is the most likely diagnosis?

1- Exogenous oestrogen

2- Turners Syndrome

**3- Klinefelters syndrome**

4- Complete androgen insensitivity syndrome

5- Fragile X syndrome

Q845. An 18 year old girl has yet to commence her periods. On examination there is normal breast development and sparse pubic hair. However a speculum investigation reveals a short blind ended vagina and an ultrasound reveals there is no uterus and testes in the abdomen. What is the most likely diagnosis?

**1- Complete androgen insensitivity syndrome**

2- Delayed puberty

3- Fragile X syndrome

4- Turners syndrome

5- Klinefelters syndrome

Q846. Which of the following drugs does not lead to impaired glucose tolerance?

1- Steroids

2- Thiazide diuretics

3- Atypical antipsychotics

4- Anti retroviral drugs

**5- ACE Inhibitors**

Q847. In sarcoidosis, which of the following mechanisms leads to hypercalcaemia?

1- Increased Vitamin D absorption

2- Secondary hyperparathyroidism

3- Renal failure

4- Reduced hydroxylation of Vitamin D

**5- Increased hydroxylation of Vitamin D**

Q848. A 60 year old male presents with headaches. On examination he appears to have very large hands and a prominent jaw. He is hypertensive and appears to be sweating profusely. Which of the following is useful in the first instance for the diagnosis?

1- Short synacthen

2- Growth hormone levels

3- Cortisol level

**4- IGF1 levels followed by growth hormone levels before and after glucose tolerance test**

5- Glucose levels

Q849. A 73 year old female who is otherwise fit and well and is on no other medications, presents with bone pain and has had a recent fracture. She is found to have a low calcium, low phosphate and high alkaline phosphatase. What is the most likely cause?

1- Myeloma

2- Renal disease

3- Vitamin D deficiency secondary to malabsorption

**4- Vitamin D deficiency due to lack of sunlight**

5- Paget's disease

Q850. A 27 year old gentleman presents with recurrent episodes of sweating, palpitations, dizziness and weakness. He has noticed them occurring particularly in the early morning. During one of these episodes his BM is found to be 2.9. Further investigations reveals low glucose level with an elevated c peptide and insulin level. What is the most likely diagnosis?

1- Glucagonoma

2- Self administration of metformin

3- Self administration of insulin

4- MEN type 1

**5- Insulinoma**

Q851. A 27 year old gentleman presents with recurrent episodes of sweating, palpitations, dizziness and weakness. He has noticed them occurring particularly in the early morning. During one of these episodes his BM is found to be 2.9. Which of the following investigation will be most useful in confirming the diagnosis?

1- Glucose tolerance test

2- Fasting glucose

3- Random glucose, insulin, proinsulin and c peptide levels

**4- Fasting (48 hours or 72 hour s) glucose, insulin, proinsulin and c peptide levels**

5- C peptide level

Q852. Which of the following hormonal changes may lead to a low libido and erectile dysfunction?

**1- Low Dehydroepiandrosterone**

2- Low prolactin levels

3- None of these

4- Low oestradiol

5- Low progesterone

Q853. A 32 year old female presents to her GP with tremor, sweating, diarrhoea and irritability. She has noticed she has lost weight and is intolerant to heat. On examination there is evidence of tachycardia, brisk reflexes and goitre (small, diffuse and fir m) . In addition you notice exopthalmos, lid lag and evidence of clubbing of her fingers which are tender. What is the most likely diagnosis?

**1- Graves disease**

2- De Quervains thyroiditis

3- Toxic multinodular goitre

4- Hashimotos thyroiditis

5- Toxic adenoma

Q854. A 65 year old male presents after noticing a lump in his neck. This is painless and not associated with any symptoms and has increased in size over the last few months. He is tall and slim with elongated fingers. He has a previous diagnosis of phaeochromocytoma. Which of the following investigation will most likely confirm the definitive diagnosis?

1- Urinary catecholamines

2- TSH

**3- Calcitonin**

4- Free T3

5- Antithyroid peroxidase

Q855. A 72 year old is found to have hypercalcaemia. Her phosphate is low and she has elevated ALP and deranged LFTs. Which of the following is the most likely cause of her hypercalcaemia?

1- Multiple myeloma

**2- Bony Metastases**

3- Vitamin D excess

4- Paget's Disease

5- Primary Hyperparathyroidism

Q856. A 56 year old gentleman who has chronic depression and alcohol dependency syndrome visits his GP for a check up. On examination he has truncal obesity, a buffalo hump and abdominal striae. There also appears to be facial fullness. He is hypertensive. A 24 hour urinary cortisol is slight elevated and an overnight dexamethasone suppression test reveals a morning cortisol which is slightly elevated and a midnight cortisol was 70ng/L. Which of the following is the most likely diagnosis?

1- Cushing's Syndrome

**2- Pseudo Cushing Syndrome**

3- Obesity

4- Ectopic ACTH

5- Cushing's Disease

Q857. A 42 year old female presents with malaise, night sweats and weight loss. She has also noticed tender bruise like lesions on her shins. A CXR reveals bilateral hilar lymphadenopathy. She has also noticed polydipsia, polyuria and constipation over the last few weeks and bloods reveal hypercalcaemia. Given the most likely diagnosis, what is the cause of her hypercalcaemia?

1- Reduced Urinary calcium excretion

2- Hyperparathyroidism

3- Secretion of PTH like peptide

4- Bony metastases

**5- Increased hydroxylation of Vitamin D**

Q858. A 25 year old male with type 1 diabetes mellitus and Addison's disease presents with a lump in his neck. He has also noticed being intolerant to the cold, being constipated and changes in his hair and nails. Antithyroperoxidase antibodies are positive. Which of the following is the most likely underlying diagnosis?

1- Grave's Disease

2- MEN type 1

**3- Autoimmune Polyglandular Syndrome type 2**

4- Autoimmune Polyglandular Syndrome type 1

5- Hashimoto's Thyroiditis

Q859. A 14 year old girl presents with non specific symptoms of nausea and weight loss. On examination there is evidence of postural hypotension and bloods reveal hyponatraemia and slightly elevated potassium. She has a past medical history of hypoparathyroidism and had mucocutaneous candidiasis as a child. Which of the following is the most likely underlying diagnosis?

1- Autoimmune Polyglandular Syndrome type 2

2- Addison's Disease

3- Hyperthyroidism

**4- Autoimmune Polyglandular Syndrome type 1**

5- Anorexia Nervosa

Q860. A 64 year old gentleman with type 2 diabetes mellitus is found to have pre-proliferative retinopathy on his annual screening. He is obese and his blood pressure is 155/90 mmHg. He has evidence of proteinuria on urinalysis. A recent HBA1c is 8.0%. Which of the following would be most useful for reducing the progression of both the retinopathy and proteinuria?

1- Intense Glycaemic control

**2- Tight blood pressure control**

3- Weight reduction

4- Smoking cessation

5- Improved diet

Q861. A 28 year old male is diagnosed with maturity onset diabetes of the young type 2. The mutation of which gene is responsible?

1- HNF 4-alpha

2- HNF 1-alpha

3- HNF 1-beta

**4- Glucokinase**

5- IPF-1

Q862. A 17 year old female attends with primary amenorrhoea. She has severe acne and a deep voice and has an enlarged clitoris. Her male cousin had precocious puberty. Which of the following should be performed to confirm the diagnosis?

1- Pelvic Ultrasound

2- Steroid hormone binding globulin

3- Testoterone levels

4- FSH and LH

**5- Serum 17-hydroxyprogesterone**

Q863. Which of the following does not cause a bloody diarrhoea?

1- Campylobacter

2- Shigella 3- E. Coli

4- Salmonella

**5- Cholera**

Q864. A 21 year old who is short in stature presents with muscle weakness. She is suffering from polydipsia and polyuria. Her bloods reveal a potassium of 2.6 mmol/L and she has a hypochloraemic alkalosis. Urinary calcium is elevated. Magnesium levels are normal. What is the most likely diagnosis?

**1- Bartters syndrome**

2- Addisons disease

3- Conns syndrome

4- Gordons syndrome

5- Gitelmans syndrome

Q865. Which of the following is not a contraindication for the use of metformin?

**1- Hypertension**

2- Chronic Liver Disease

3- Chronic Kidney Disease

4- Within 2 days of contrast medium injection

5- Severe respiratory insufficiency

# Chapter 5 Gastroenterology

Q866. A patient with Crohns Disease is unresponsive to steroids and mesalazine. What is the next therapy you would introduce?

1- Methotrexate

**2- Azathioprine**

3- Elemental diet

4- Infliximab

5- Referral for colectomy

Q867. A 36 year old female, who has recently been in Safari in Africa, presents with diarrhoea and lower abdominal pain which has been on going for several weeks. Her stools were initially loose however the diarrhoea is now bloody and there is evidence of mucous. A stool sample contains trophozoites and leucocytes. What is the likely organism leading to these symptoms?

1- Salmonella enterica

2- Giardia Lamblia 3- C. Difficile

4- Adenovirus

**5- Entamoeba histolytica**

Q868. What is true in regards to gamma GT?

**1- Increased GGT levels in alcohol excess and fatty liver**

2- Specific to the liver

3- Not increased in obstructive jaundice

4- Isolated increase of GGT in obstructive jaundice

5- Used to monitor hepatic disease

Q869. A 55 year old gentleman presents to his GP with intermittent abdominal pain and diarrhoea which is sometimes difficult to flush away. He has also had a cough, fever and has noticed aches and pains in his joints. A biopsy of the duodenum reveals periodic acid Schiff stain positive macrophages with intracellular clumps. What is the most likely diagnosis?

1- Coeliac disease

**2- Whipples disease**

3- Carcinoid Syndrome

4- Bacterial Overgrowth

5- Inflammatory Bowel Disease

Q870. Which of the following would score 3 on the Child Pugh classification?

1- Encephalopathy grade I

2- Bilirubin of 50

**3- Albumin less than 28**

4- PT of 2.0

5- Mild ascites

Q871. A 35 year old male who has lived in Barbados for the last few years presents with diarrhoea, which sometimes difficult to flush away. This has caused about 5 kg weight loss. He is very fatigued and feverish at times. He has also noticed some ankle oedema. On examination he looks cachectic. Bloods reveal a macrocytic anaemia, low potassium and calcium levels and albumin levels. A jejunal biopsy reveals incomplete villous atrophy and inflammatory infiltrate. What is the most likely diagnosis?

1- Tuberculosis

**2- Tropical sprue**

3- Coeliac disease

4- Chronic pancreatitis

5- Crohns disease

Q872. A 68 year old male presents with severe colicky abdominal pain. Surprisingly there is only minimal generalised tenderness and no evidence of guarding. He gives a history of weight loss and pain after eating for the last 6 months. He has previously had a myocardial infarction. His bloods reveal raised inflammatory markers and a metabolic acidosis. What investigation would be most useful for the definitive diagnosis?

1- Angiography

2- Abdominal Xray

3- Amylase

**4- CT angiography**

5- CT abdomen

Q873. A 68 year old male presents with severe colicky abdominal pain. Surprisingly there is only minimal generalised tenderness and no evidence of guarding. He gives a history of weight loss and pain after eating for the last 6 months. He has previously had a myocardial infarction. His bloods reveal raised inflammatory markers and a metabolic acidosis. What might you see on abdominal Xray which would be more specific of the diagnosis?

1- Free air in the biliary tract

2- Free air under the diaphragm

**3- Thumb printing**

4- Distended small bowel loops

5- Faecal loading

Q874. A 52 year old female presents with increasing fatigue over the last few months. She has also noticed pains in the joints of his fingers. She has noticed she is irritable and is having severe mood swings. Recently her periods have stopped. She has also noticed being thirsty and increased urinary frequency. On examination she appears very tanned and there is evidence of hepatomegaly. Given the most likely diagnosis, what is most useful for monitoring response to treatment?

1- Glucose

**2- Ferritin**

3- Haemoglobin

4- Transferrin saturation

5- CRP

Q875. A patient with ulcerative colitis is found to have deranged LFTs with particularly elevated bilirubin and gamma glutamyltransferase. He is complaining of pruritus. On examination he appears jaundice and there is hepatomegaly. Bloods reveal positive ANCA. What is the most likely diagnosis?

**1- Primary sclerosing cholangitis**

2- Non alcohol steatohepatitis

3- Primary biliary cirrhosis

4- Autoimmune hepatitis

5- Alcohol related liver disease

Q876. A 52 year old gentleman presents with symptoms of dyspepsia and heartburn. He does not drink excessively and is a nonsmoker. On examination there is some mild epigastric tenderness but there is no evidence of any supraclavicular nodes. An endoscopy is performed and reveals an ulcer which is biopsied. The pathology comes back and it looks like a low grade MALToma. What is the most appropriate management of this patient?

1- Omeprazole

**2- H pylori eradication**

3- Radiotherapy

4- Oesophagectomy

5- Chemotherapy

Q877. A 38 year old male with known alcohol excess presents after vomiting up large amounts of fresh blood. On examination he is hypotensive and tachycardic and there is evidence of ascites and peripheral stigmata of liver disease. He is fluid resucitated and given IV terlipressin and antibiotics. What is the next step in your management?

1- IV somatostatin

**2- Upper GI endoscopy and banding**

3- IV omeprazole

4- Sengstaken tube

5- Colonoscopy

Q878. A 54 year old gentleman presents with new symptoms of dyspepsia. He has also noticed 5kg of weight loss over the last few months. An upper GI endoscopy is performed and reveals a lesion which is biopsied. This reveals a MALToma. What is the appropriate management for this patient?

1- Partial gastrectomy

2- Monitoring

3- Radiotherapy 4- H. pylori eradication

5- Chemotherapy

Q879. A 20 year old has been having bloody diarrhoea for the last 2 months. She is brought to A and E as she is very unwell, moving her bowels about 15 times a day even through the night and is having abdominal pain. On examination she is very tender generally in the abdomen and she is hypotensive and tachycardic. How would you next manage this patient?

**1- Fluid resuscitation and AXR**

2- Inflammatory markers

3- IV antibiotics

4- IV steroids

5- Flexible Sigmoidoscopy

Q880. A 64 year old female presents with right upper quadrant pain, fever and jaundice. She has been suffering from right upper quadrant pain after eating for several months. She is found to have elevated inflammatory markers and deranged LFTs with greatly elevated bilirubin and increased alkaline phosphatase. She is commenced on IV antibiotics but is not responding well and bloods continue to worsen. What is the next stage in her management?

**1- Urgent endoscopic biliary decompression**

2- Cholecystectomy

3- Change IV antibiotics

4- MRCP

5- Add in gentamicin to current regime

Q881. A 42 year old male who is obese and has type 2 diabetes mellitus has been found to have deranged LFTs on routine bloods. He gives a vague history of fatigue and right upper quadrant pain. On examination it is difficult to assess if there is hepatomegaly due to his BMI. He denies any excessive alcohol intake, blood transfusion or IV drug use. His liver screen is negative. An ultrasound reveals a hyperechogenic bright liver. Given the most likely diagnosis what would you expect to see on liver biopsy?

1- Fatty infiltration

2- Nil

**3- Fatty infiltration, inflammation and fibrosis**

4- Regenerating nodules

5- Lymphoid follicles and plasma cell infiltration

Q882. A 50 year old female presents with fatigue and pruritus. Bloods reveal a raised ALP and high normal bilirubin. Antimitochondrial antibodies are found and raised IgM. Given the most likely diagnosis, what treatment should be commenced?

**1- Ursodeoxycholic acid**

2- Rifampicin

3- Methotrexate

4- D penicillamine

5- Azathioprine

Q883. A 28 year old pregnant female presents with pruritus. Bloods reveal deranged transaminases and elevated bilirubin. Other bloods are normal. What is the most likely diagnosis?

1- Viral hepatitis

**2- Intrahepatic Cholestasis of Pregnancy**

3- Hyperemesis Gravidarum

4- Acute fatty liver

5- HELLP syndrome

Q884. A 55 year old male presents with jaundice. Bloods reveal an elevated ALP and bilirubin and also elevated AST and ALT. He is normally fit and well. He is not complaining of any abdominal pain or weight loss. He is not on any regular medications and has a moderate alcohol intake. He has recently had cellulitus and finished a course of flucloxacillin and penicillin V. Which of the following is the most likely diagnosis?

1- Alcohol Hepatitis

2- Cholangitis

3- Pancreatic Carcinoma

4- Penicillin associated cholestatic hepatitis

**5- Flucloxacillin associated cholestatic hepatitis**

Q885. Which of the following is a contraindication to liver biopsy?

1- Transaminases in 1000's

2- BMI of 29

3- Platelets of 100

4- INR 1.3

**5- Extrahepatic biliary obstruction**

Q886. A 55 year old patient has chronic liver disease secondary to alcohol and hepatitis C infection. He presents with decompensated liver disease with increasing ascites. There is no evidence of GI bleeding. His AFP is normal. An ultrasound shows a focal lesion within the liver. What is the most likely reason for this decompensation?

1- Constipation

2- Upper GI bleed

**3- Hepatocellular carcinoma**

4- Spontaneous bacterial peritonitis

5- Alcohol binge

Q887. A 58 year old who is known to have alcohol excess presents with increased abdominal swelling. On examination there is peripheral stigmata of liver disease and tense ascites and he has deranged LFTs. An Ultrasound is performed and reveals a focal liver lesion of 4cm and he has an AFP of 300ng/ml. Which of the following is the best treatment given the most likely diagnosis?

**1- Liver Transplantation**

2- Radiofrequency Ablation

3- Chemoembolisation

4- Tumour resection

5- Chemotherapy

Q888. A 35 year old patient with systemic sclerosis presents at the clinic with worsening acid reflux and vomiting and was previously commenced on omeprazole due to this. On examination of her abdomen this is soft and non tender. Hydrogen breath test is negative ruling out bacterial overgrowth. How would you manage this patients worsening symptoms?

**1- Metoclopramide**

2- Ranitidine

3- Referral for Fundoplication

4- Double dose of omeprazole

5- Lifestyle change

Q889. A patient known to have systemic sclerosis presents with chronic diarrhoea. How would you manage this?

1- Codeine Phosphate

2- Colonoscopy

3- Stool culture

**4- Metronidazole**

5- Loperamide

Q890. In children, which alternative therapy can be utilised in small bowel Crohns disease, which is as effective as corticosteroids but has much less side effects?

1- Mesalazine

2- Gluten free diet

3- Infliximab

**4- Elemental diet**

5- PR steroids

Q891. A 35 year old female presents to clinic with diarrhoea. She has recently undergone a renal transplant and is currently on prednisolone, mycophenolate mofetil and ciclosporin. Diarrhoea is watery, there is no evidence of any blood however there is evidence of mucus and her bowel is moving about 10 times per day. On examination her abdomen is soft but she looks unwell and dehydrated. What is the most likely cause of the diarrhoea?

1- Prednisolone

2- Ciclosporin

3- Infective gastroenteritis

4- Acute rejection

**5- Mycophenolate mofetil**

Q892. A 25 year old female of African origin presents due to intermittent diarrhoea, crampy abdominal pain, bloating , flatulence and nausea. She thinks it may be worse after she eats certain foods. Bloods are normal and a flexible sigmoidoscopy is performed and is normal. What is the next stage in the management?

1- Colonoscopy

2- Advice regarding IBS

3- Upper GI endoscopy

4- Gluten free diet

**5- Dairy free diet**

Q893. A 25 year old presents with diarrhoea. She has had a previous ileal resection for Crohns Disease. She has also had two recent episodes of loin to groin pain. Her bloods are normal including her inflammatory markers What is the most likely diagnosis?

1- IBS

2- Bacterial Overgrowth

3- Flare of Crohns Disease

**4- Short bowel syndrome**

5- Coeliac Disease

Q894. A 25 year old presents with diarrhoea. She has had a previous ileal resection for Crohns Disease. Her inflammatory markers are normal. What is the most likely cause of her diarrhoea?

1- Flare of Crohn's disease

2- Bacterial overgrowth

3- Tropical Sprue

**4- Bile Acid Malabsorption**

5- Gastroenteritis

Q895. A patient with type 2 diabetes mellitus has recently had his metformin dose increased due to poor control. He is now suffering from diarrhoea. What is the likely cause of this?

1- Bacterial overgrowth

2- Chronic Pancreatitis

**3- Bile acid malabsorption**

4- Autonomic neuropathy

5- Infective diarrhoea

Q896. A 75 year old gentleman with acid reflux symptoms, bloating and weight loss. He has had previous surgery for a perforated duodenal ulcer many years ago. He has a medical history of hypertension and is currently on ramipril. On examination there is nil of note except a mid line laparotomy scar. Bloods are performed and reveal a macrocytic anaemia. What is the next most appropriate investigation?

1- Oesophageal manometry and pH studies

**2- Hydrogen breath test**

3- CT CAP

4- Upper GI endoscopy

5- Colonoscopy

Q897. A 65 year old obese male presents is referred. He has non specific lower left sided abdominal pain for the last few months with intermittent diarrhoea and occasionally rectal bleeding.. He has also been recently admitted with lower left sided abdominal pain with a palpable mass, fever. It was associated with nausea, vomiting and diarrhoea. What would you expect to see on CT scanning?

1- Mesenteric oedema

2- Thumbprinting

3- Obstruction

**4- Diverticulae**

5- Mucosal inflammation

Q898. A 60 year old gentleman has just complete a course of coamoxiclav for a lower respiratory tract infection. He present very unwell with severe diarrhoea which is green in colour and is foul smelling. There is no blood or mucous. Samples are sent and a flexible sigmoidoscopy is performed and reveals a colitis. There is evidence of dilatation of his large bowel on abdominal x-ray. How should you manage this patient?

1- IV fluids

2- IV fluids and oral ciprofloxacin

**3- IV fluids and oral metronidazole**

4- Await stool sample results before commencing treatment

5- IV fluids and IV vancomycin

Q899. In ulcerative colitis, which of the following is not an indication for the use of Azathioprine?

1- Disease relapses within 6 weeks of stopping steroids

2- Intolerant to steroids

3- Two or more steroid courses in one year

**4- As first line with mesalazine**

5- Disease relapses after reducing steroids

Q900. For patients with primary biliary cirrhosis, with severe intractable pruritus, which has failed to respond to colestyramine and rifampicin, what is ideally the next course of action?

1- Methotrexate

2- Steroids

**3- Liver transplantation**

4- High dose ursodeoxycholic acid

5- Plasmapheresis

Q901. What is true regarding primary sclerosing cholangitis?

1- More common in females

2- Does not cause pruritus

3- Not associated with inflammatory bowel disease

4- Not normally associated with ANCA

**5- Associated with an increased risk of cholangiocarcinoma**

Q902. A 60 year old patient presents with painless jaundice. On further questioning he has noticed some weight loss over the last few months. He is a heavy smoker and has a past medical history of COPD. On examination his abdomen is soft and non tender and he is clearly icteric. His bloods reveal deranged LFTs with an alkaline phosphates of 240 and a bilirubin of 92, ALT and AST are both around 200. An ultrasound of his abdomen is performed and shows both intra and extrahepatic bowel duct dilatation within the liver.

1- CT CAP

2- Liver screen

3- ERCP

**4- MRCP**

5- Liver biopsy

Q903. In ulcerative colitis, which of the following carries the greatest risk of developing colorectal cancer?

**1- Pancolitis**

2- Onset in adulthood

3- Proctitis

4- Poor compliance

5- Relapsing and remitting disease

Q904. A 40 year old gentleman presents with a dysphagia to both solids and liquids. He sometimes regurgitates his food. He has not lost any weight. You organise a barium swallow which reveals a dilated oesophagus with a narrowing at the end of the oesophagus. What is the most appropriate long term management of the most likely diagnosis?

1- Isosorbide mononitrate

**2- Balloon dilatation**

3- Oesophagectomy

4- Botox Injection

5- Nifedipine

Q905. A 52 year old gentleman with previously diagnosed Barretts oesophagus has presented to clinic with dysphagia. This began with difficulty swallowing solids but now he is noticing he is finding it difficult to swallow liquids. He has noticed he has lost some weight. On examination he looks cachectic and there is some epigastric tenderness. His bloods reveal an anaemia and a raised inflammatory marker and a Chest X ray reveals a fluid level behind the heart. What is the most likely diagnosis?

1- Hiatus Hernia

2- Lung cancer

3- Benign Stricture

**4- Oesophageal carcinoma**

5- Pharyngeal pouch

Q906. A 60 year old gentleman with known alcohol excess presents with epigastric pain radiating to his back. This has occurred several times. He also describes steatorrhoea and weight loss. What is the most likely diagnosis?

1- Coeliac disease

2- Alcoholic liver disease

3- Gastritis

**4- Chronic pancreatitis**

5- Acute pancreatitis

Q907. A 25 year old female presents with a 6 month history of alternating diarrhoea and constipation. She also complains of abdominal bloating and passing mucous per rectum. There is no history of weight loss and her bloods are normal. What is the most likely diagnosis?

1- Colorectal carcinoma

2- Ulcerative Colitis

**3- Irritable Bowel Syndrome**

4- Crohns disease

5- Coeliac disease

Q908. You suspect a patient with Crohns disease nay have bile acid malabsorption. What treatment might be useful?

1- Infliximab

**2- Colestyramine**

3- Loperamide

4- Increased dose of preexisting treatment

5- Codeine

Q909. An 8 year old boy presented with bloody diarrhoea, fever and abdominal pain. He is found to have haemolytic anaemia, thrombocytopenia and acute renal failure. What is the most likely diagnosis?

**1- Haemolytic Uraemic Syndrome**

2- Henoch Schönlein Purpura

3- Thrombotic thrombocytopenic purpura

4- Gastroenteritis

5- Inflammatory bowel disease

Q910. Which of the following is not a mode of transmission of hepatitis C infection?

1- Blood products

2- Vertical transmission

**3- Faecal Oral Route**

4- Sexual transmission

5- Body piercings

Q911. A 52 year old female presents with increasing fatigue over the last few months. She has also noticed pains in the joints of his fingers. She has noticed she is irritable and is having severe mood swings. Recently her periods have stopped. She has also noticed being thirsty and increased urinary frequency. On examination she appears very tanned and there is evidence of hepatomegaly. Given the most likely diagnosis, what is most useful for monitoring response to treatment?

1- Glucose

2- CRP

**3- Ferritin**

4- Transferrin saturation

5- Haemoglobin

Q912. A 59 year old gentleman presents with melaena. He is known to have hypertension and severe aortic stenosis. On examination there is an ejection systolic murmur and on examination of the chest and abdomen there is no abnormalities detected. His bloods reveal a microcytic anaemia and upper GI endoscopy is normal. What is the next investigation to be performed?

1- Small bowel follow through

**2- Mesenteric angiography**

3- CT Abdomen

4- Colonoscopy

5- Haematinics

Q913. Lactulose aids in reducing hepatic encephalopathy. What is the mechanism for this?

1- Asks as a barrier preventing ammonia absorption

2- Increased motility

3- Alkalinises the faeces

4- Osmotic laxative

**5- Neutralisation and less absorption of ammonia**

Q914. A 52 year old female presents with fatigue. She has also noticed being very itchy and the whites of her eyes becoming yellow. She has deranged LFTs and her anti mitochondrial antibody is positive. What is the most likely diagnosis?

1- Haemochromatosis

2- Primary sclerosing cholangitis

3- Autoimmune hepatitis

**4- Primary biliary cirrhosis**

5- Wilsons disease

Q915. A 19 year old female presents with a few month history of abdominal pain, watery diarrhoea and weight loss. She has noticed on a few occasions redness of her eye causing some discomfort and bruise like lesions on her shins. A colonoscopy is performed and reveals a cobblestone appearance. What is the most likely diagnosis?

1- Colorectal carcinoma

**2- Crohns disease**

3- Irritable bowel syndrome

4- Gastroenteritis

5- Ulcerative colitis

Q916. A patient with ulcerative colitis is found to have deranged LFTs with particularly elevated bilirubin and gamma glutamyltransferase. He is complaining of pruritus. On examination he appears jaundice and there is hepatomegaly. Bloods reveal positive ANCA. What investigation is most useful in confirming the diagnosis?

1- Liver biopsy

2- Ultrasound

3- Anti smooth muscle antibodies

4- ERCP

**5- MRCP**

Q917. A 19 year old presents with a 2 month history of bloody diarrhoea, urgency, tenesmus and crampy abdominal pain. A colonoscopy is performed and reveals superficial ulceration with a friable mucosa and biopsy shows goblet cell depletion and crypt abscesses. What is the most likely diagnosis?

1- Gastroenteritis

2- Coeliac Disease

3- Crohn's Disease

**4- Ulcerative colitis**

5- Whipples disease

Q918. A 48 year old woman presents with dysphagia. This is both to liquids and solids. She has also associated retrosternal pain and she does sometimes regurgitate food. She has not had any weight loss. There is no past medical history and she is well otherwise. There is nil of note on examination and bloods are normal. What is the most likely diagnosis?

1- Hiatus Hernia

2- Pharyngeal Pouch

3- Oesophageal Cancer

4- GORD

**5- Achalasia**

Q919. A 60 year old gentleman presents with dysphagia. This initially began with solids and he is now gradually finding it increasingly more difficult to swallow liquids. He has also noticed that he has lost several kilos in weight over the past few months. He has no previous medical history however is a heavy drinker and smoker. On examination he looks cachectic and there is evidence of tenderness in the epigastrium. What investigation should be organised?

1- Barium swallow

2- Abdominal ultrasound scan

3- Colonoscopy

**4- Upper GI endoscopy**

5- CT scan

Q920. A 60 year old gentleman has just complete a course of coamoxiclav for a lower respiratory tract infection. He present very unwell with severe diarrhoea which is green in colour and is foul smelling. There is no blood or mucous. Samples are sent and a flexible sigmoidoscopy is performed and reveals a colitis. There is evidence of dilatation of his large bowel on abdominal x ray. How should you manage this patient?

1- IV fluids and oral ciprofloxacin

2- Await stool sample results before commencing treatment

**3- IV fluids and oral metronidazole**

4- IV fluids

5- IV fluids and IV vancomycin

Q921. A 43 year old male was in a road traffic accident and suffered major trauma. He is now in the intensive care unit. He has become pyrexial and he appears to be in pain. On examination he appears to be tender in the right upper quadrant. Bloods reveal deranged LFTs and his amylase is also elevated. He also has a leucocytosis. An ultrasound reveals a distended gallbladder with thickened walls and pericholecystic fluid although there is no evidence of gallstones. What is the most likely diagnosis?

1- Calculous Cholecystitis

2- Ascending Cholangitis

3- Acute Pancreatitis

4- Hepatitis

**5- Acalculous Cholecystitis**

Q922. A patient being investigated for anaemia has been found from one of the biopsies to have anti parietal antibodies present. Where is the biopsy likely to have been taken from?

1- Terminal Ileum

**2- Body of Stomach**

3- Duodenum

4- Antrum of Stomach

5- Jejunum

Q923. A patient who is pregnant is suffering from severe nausea and vomiting. She is dehydrated and is found to have deranged LFTs. What is the most likely cause of her deranged LFTs?

**1- Intrahepatic cholestasis of pregnancy**

2- Obstructive Jaundice

3- Viral hepatitis

4- Autoimmune hepatitis

5- HELLP syndrome

Q924. A 50 year old female presents with fatigue and pruritus. Bloods reveal a raised ALP and high normal bilirubin. Antimitochondrial antibodies are found and raised IgM. What is the most likely diagnosis?

1- Autoimmune hepatitis

2- Alcohol liver disease

3- Primary Sclerosing Cholangitis

**4- Primary Biliary Cirrhosis**

5- Sarcoidosis

Q925. A 50 year old female with known alcohol related liver disease is noted by her husband to be confused and disorientated. She has been recently commenced on furosemide and spironolactone for recurrent ascites. Over the last few days she has complained of increased urinary frequency and dysuria. On examination there was evidence of ascites, which were not tense, and asterixis. Bloods revealed acute renal failure and deranged LFTs. What is the most likely cause of her confusion?

1- Spontaneous bacterial peritonitis

2- UTI

3- Sepsis

4- Acute renal failure

**5- Hepatic encephalopathy**

Q926. What is the best way to monitor a patient's nutritional status?

1- Serum levels of elements

2- Weight

3- Albumin

**4- Clinically**

5- BMI

Q927. On liver biopsy, what would you expect to find in viral hepatitis?

1- Depleted interlobular ducts and granulomas

2- Liver cell rosettes and plasma cells

**3- Acidophil bodies, portal tract inflammation and cholestasis**

4- Fatty change, centrilobular inflammation, Mallorys hyalin

5- Hyalin globules

Q928. A 50 year old farm worker presents with a one year history of feeling generally unwell with arthralgia, fever, cough and chest pain. He has also notice that he has intermittent diarrhoea. On examination you find evidence of finger clubbing and a purpuric rash. In the abdomen you find hepatomegaly and a pansystolic murmur is heard of auscultation of the heart. Bloods reveal deranged LFTs and a high ESR and CRP. What investigation would you order to make the definitive diagnosis?

1- CT CAP

2- Echo

3- CXR

**4- Serology testing for coxiella**

5- Blood cultures

Q929. A 57 year old man presents with epigastric pain radiating through to his back. This has been associated with nausea and vomiting and he has had significant weight loss in the past few months. He is known to be a heavy drinker and smoker. On examination there is evidence of epigastric tenderness. An upper GI endoscopy is performed and reveals oesophagitis. What investigation would you organise next?

1- CA 19 9

**2- CT Abdomen**

3- Colonoscopy

4- Urea breath test

5- Abdominal ultrasound

Q930. A 70 year old male who has a past medical history of atrial fibrillation and peripheral vascular disease presents with abdominal pain which is crampy in nature. On examination he looks unwell and clammy. He was hypotensive and tachycardic. His abdomen was minimally tender and there was no evidence of peritonism. His inflammatory markers are increased as is amylase. His lactate is elevated at 5. He has been having pain intermittently after eating for some time. What is the most likely diagnosis?

1- Perforation

2- Uncontrolled Atrial Fibrillation

3- Sepsis

**4- Mesenteric Ischaemia**

5- Pancreatitis

Q931. A 45 year old female, known to have systemic sclerosis presents at clinic with worsening reflux, abdominal bloating and is also having bouts of diarrhoea and constipation. She is currently on omeprazole. On examination her abdomen is soft but is tender generally. A motility study is performed and shows severe oesophageal dysmotility and a hydrogen breath test is positive. How would you manage this patient?

1- Metoclopramide

2- Amoxicillin

3- Ranitidine

4- Double dose of omeprazole

**5- Metronidazole**

Q932. A 50 year old gentleman presents with intermittent diarrhoea and bloating. He has some associated anorexia and weight loss. On further questioning he also admits to having intermittent pains in his joints and a chronic cough. On examination his abdomen is soft and non tender but there is evidence of lymph node in his axilla, supraclavicular and groin regions. His bloods reveal a low haemoglobin and albumin. A small bowel biopsy is performed and shows expanded villi with PAS positive macrophages. What is the most likely diagnosis?

1- Crohns disease

2- Lymphoma

**3- Whipples disease**

4- Tropical sprue

5- Coeliac disease

Q933. A 35 year old female has had previous bowel resection and currently has an ileostomy. She comes to clinic complaining of a lesion around her stoma. On examination there is evidence of an ulcerated lesion which is purple in colour and is at the end of her stoma. It extends from the stoma into the surrounding skin. What is the most likely diagnosis?

1- Crohns

2- Dermatitis

**3- Pyoderma gangrenosum**

4- Herniation of stoma

5- Bullous pemphigoid

Q934. You suspect a patient with Crohns disease nay have bile acid malabsorption. What investigation might be useful?

1- Increased dose of existing therapy

2- Loperamide

3- Infliximab

**4- Colestyramine**

5- Codeine

Q935. Which of the following side effects is most likely to occur when using ribavirin for treatment of hepatitis C?

1- Microcytic anaemia

2- Macrocytic anaemia

3- Thrombocytopenia

4- Neutropenia

**5- Haemolytic anaemia**

Q936. A 50 year old gentleman presents with nausea and epigastric pain. He has noticed increased abdominal swelling and ankle swelling. An upper GI endoscopy is arranged and reveals enlarged gastric folds and biopsies are taken. Biopsies reveal foveolar hyperplasia, dilatation of pits and reduced number of parietal and chief cells. He is also found to have a low albumin. What is the most likely diagnosis?

1- Chronic pancreatitis

2- Whipples disease

3- Gastric Cancer

4- Zollinger Ellison syndrome

**5- Menetriers disease**

Q937. A 48 year old woman presents with dysphagia. This is both to liquids and solids. She has also associated retrosternal pain and she does sometimes regurgitate food. She has not had any weight loss. There is no past medical history and she is well otherwise. There is nil of note on examination and bloods are normal. A barium swallow is organised which shows a dilated oesophagus and birds beak appearance at the distal end of the oesophagus. What is the most likely diagnosis?

1- Oesophageal cancer

2- Chagas disease

**3- Achalasia**

4- GORD

5- Hiatus hernia

Q938. A 48 year old female with known Raynaud's phenomenon presents as she has noticed certain areas of progressive skin tightness with thickness of the fingers, shortness of breath on exertion and difficulty swallowing. She is found to be hypertensive Which of the following is the most likely diagnosis?

**1- Diffuse cutaneous scleroderma**

2- Systemic lupus erythematous

3- CREST syndrome

4- Ehlers Danlos

5- Limited cutaneous scleroderma

Q939. Which of the following tumour markers is associated with pancreatic cancer?

1- CA 125

2- CEA

3- None of these

4- AFP

**5- CA 19-9**

Q940. Signet cell rings are most commonly found in which of the following malignancies?

1- Pancreatic carcinoma

2- Colorectal carcinoma

3- Testicular carcinoma

**4- Gastric cell carcinoma**

5- Bronchial carcinoma

Q941. What therapy can be utilised, following a variceal bleed to reduce risk of further bleeding?

1- Nil

2- Terlipressin

3- Albumin

**4- Propanolol or carvedilol**

5- Amlodipine

Q942. What is the most useful indicator of prognosis following a paracetamol overdose?

1- Renal function

2- Bilirubin

3- APTT

**4- Prothrombin time**

5- Liver transaminases

Q943. A patient with malnourishment develops cardiac failure after being commenced on total parenteral nutrition. What treatment should have been given?

**1- Phosphate Replacement**

2- Magnesium Replacement

3- Sodium Replacement

4- Potassium Replacement

5- Zinc Replacement

Q944. A 35 year old has H. Pylori eradication. Which of the following investigations would you organise to confirm eradication?

**1- 13c breath test**

2- Repeat endoscopy and biopsy for rapid urease test

3- Serology

4- Repeat endoscopy and biopsy for culture

5- Stool test

Q945. A 2 year old child with Down's Syndrome is brought to A+E with constipation. He has not moved his bowels for 2 weeks. He was noted to have delayed passage of meconium at birth. On examination there is evidence of abdominal distension. What is the most likely cause of his constipation?

**1- Hirschsprung's Disease**

2- Intussusception

3- Cystic Fibrosis

4- Hypothyroidism

5- Functional

Q946. A 28 year old female presents with a history of diarrhoea for numerous years. She has been off work on several occasions due to this. On examination this is unremarkable and her bloods are normal except for a low potassium. She is brought into hospital for assessment and is asked to keep a stool chart which shows no evidence of diarrhoea. A colonoscopy is performed and this reveals brown discolouration of the mucosa and a biopsy reveals pigment laden macrophages. What is the most likely diagnosis?

1- Irritable Bowel Syndrome

2- Ulcerative Colitis

3- Coeliac Disease

**4- Laxative abuse**

5- Microscopic colitis

Q947. A 45 year old gentleman presents with halitosis. He has also noticed it is sometimes difficult to swallow and sometimes regurgitates undigested food. He has also recently been diagnosed with asthma. What is the most likely diagnosis?

1- Hiatus Hernia

2- Oesophageal carcinoma

**3- Pharyngeal pouch**

4- Barretts Oesophagus

5- Achalasia

Q948. A 52 year old female presents with increasing fatigue over the last few months. She has also noticed pains in the joints of his fingers. She has noticed she is irritable and is having severe mood swings. Recently her periods have stopped. She has also noticed being thirsty and increased urinary frequency. On examination she appears very tanned and there is evidence of hepatomegaly. Given the most likely diagnosis, what treatment should be initiated?

1- Steroids

2- NSAIDs

3- Metformin

4- Hormone replacement therapy

**5- Venesection**

Q949. A 26 year old female presents with fatigue, myalgia and pruritus. She is complaining of vague right upper quadrant pain and has noticed her skin and eyes appearing yellow in colour. On examination there is evidence of hepatomegaly and jaundice. Bloods reveal deranged LFTs (predominantly raised aminotransferase s) , a normocytic anaemia, elevated IgGs and anti LKM antibodies. Given the most likely diagnosis, what treatment should be commenced?

1- Ciclosporin

2- Ursodeoxycholic acid

3- Azathioprine

4- Colestyramine

**5- Prednisolone**

Q950. A 26 year old female presents with fatigue, myalgia and pruritus. She is complaining of vague right upper quadrant pain and has noticed her skin and eyes appearing yellow in colour. On examination there is evidence of hepatomegaly and jaundice. Bloods reveal deranged LFTs (predominantly raised aminotransferase s) , a normocytic anaemia, elevated IgGs and anti LKM antibodies. Given the most likely diagnosis steroids are commenced however the patient is concerned regarding the side effects of steroids. What agent is used first line as a steroid sparing agent?

1- Ursodeoxycholic acid

2- Methotrexate

**3- Azathioprine**

4- Budesonide

5- Ciclosporin

Q951. A 46 year old female presents with fatigue, myalgia and pruritus. She is complaining of vague right upper quadrant pain and has noticed her skin and eyes appearing yellow in colour. On examination there is evidence of hepatomegaly and jaundice. Bloods reveal deranged LFTs (predominantly raised aminotransferase s) , a normocytic anaemia, elevated IgGs and anti nuclear antibodies and anti smooth muscle antibodies. She is commenced on steroids and azathioprine however she continues to deteriorate and now presents with decompensated cirrhosis. What is the next management step?

1- Ciclosporin

2- Methotrexate

3- Ursodeoxycholic acid

**4- Liver transplantation**

5- Budesonide

Q952. A 50 year old female presents with fatigue and pruritus. Bloods reveal a raised ALP and high normal bilirubin. Antimitochondrial antibodies are found and raised IgM. She is commenced on ursodeoxycholic acid. She is started on colestyramine for treatment of the pruritus however this fails. Which of the following may be considered for the management of the pruritus?

**1- Rifampicin**

2- D penicillamine

3- Colestipol

4- Azathioprine

5- Methotrexate

Q953. A 65 year old gentleman who is normally fit and well presents to his GP with rectal bleeding. On further questioning he states he has lost some weight unintentionally and has noticed a change in bowel habit and tenesmus. On examination there is evidence of a left iliac fossa mass. A colonoscopy and biopsy confirm a colorectal adenocarcinoma. A CT is performed and the primary tumour is deemed resectable, however there is 3 small metastases within one of the lobes of the liver. There is no evidence of nodal disease. Which of the following is the most appropriate management of this patient?

**1- Resection of colorectal carcinoma and liver metastases**

2- Chemotherapy

3- Liver biopsy

4- Resection of colorectal carcinoma and radiotherapy for liver metastases

5- Resection of colorectal carcinoma and chemotherapy

Q954. A 55 year old gentleman was discharged one week ago following treatment for neutropenic sepsis. He has been having chemotherapy for colorectal carcinoma. He now presents with watery diarrhoea although he has had some blood stained stools and abdominal cramps. He looks unwell and is hypotensive and tachycardic. He has generalised abdominal tenderness although there is no evidence of peritonism. Bloods reveal an elevated CRP and normal WCC. Which of the following is the most likely diagnosis?

1- Gastroenteritis

**2- Pseudomembranous Colitis**

3- Diverticulitis

4- Tumour related

5- Inflammatory bowel disease

Q955. A 55 year old female presents with constipation. She has noticed increasing abdominal distension over the last few months. On examination her abdomen is greatly distended and is dull to percussion although there is no evidence of shifting dullness. A CT Abdomen reveals multiple complex cystic masses within the peritoneum and scalloping of the liver. Which of the following is the most likely diagnosis?

1- Retroperitoneal Fibrosis

2- Meig's Syndrome

3- cystadenocarcinoma

**4- Pseudomyxoma Peritonei**

5- Ascites secondary to Ovarian tumour

Q956. A 72 year old female is admitted with lower left quadrant pain and several episodes of diarrhoea. She has a past medical history of type 2 diabetes mellitus. On examination there is tenderness in her left iliac fossa. She is pyrexial and tachycardic. Bloods reveal an elevated WCC and CRP. Which investigation should be organised?

1- Barium enema

2- Flexible sigmoidoscopy

**3- CT Abdomen**

4- Colonoscopy

5- Abdominal Xray

Q957. A 52 year old gentleman is found to have a microcytic anaemia. He is asymptomatic and there is nil of note on examination. Which of the following investigations must be organised?

1- Barium Enema

**2- Colonoscopy**

3- Abdominal Xray

4- Liver function tests

5- Upper GI endoscopy

Q958. A 2 year old boy with Down's syndrome has chronic constipation. His parents have recently separated. He undergoes anorectal manometry which shows failure of relaxation of anal sphincter when a rectal balloon is inflated. What is the most likely diagnosis?

1- Intussuception

2- Constipation

**3- Hirschprung's Disease**

4- Psychological

5- Volvulus

Q959. A 60 year old gentleman presents to his GP with tiredness and increased shortness of breath. Bloods reveal a microcytic hypochromic anaemia and he is subsequently found to have iron deficiency anaemia. There is no evidence of any GI symptoms. What investigation s most appropriate to organise in this case?

1- CT Chest Abdomen and Pelvis

2- Recheck bloods in three months time after iron supplementation

3- Flexible sigmoidoscopy

**4- Colonoscopy**

5- Upper GI endoscopy

Q960. The C282Y mutation on chromosome 6 is associated with which disease?

1- FAP

2- HNPCC

**3- Haemochromatosis**

4- Haemophilia A

5- Gilberts syndrome

Q961. An 18 year old notices that whenever he has a cold or flu he becomes jaundice. The urine is not dark. What is the most likely diagnosis?

1- Dubin Johnson syndrome

**2- Gilberts syndrome**

3- Gallstone

4- Haemochromatosis

5- Haemolytic anaemia

Q962. A 38 year old male with known alcohol excess presents after vomiting up large amounts of fresh blood. On examination he is hypotensive and tachycardic and there is evidence of ascites and peripheral stigmata of liver disease.. He is fluid resuscitated. What else would you do initially?

1- Sengstaken tube

2- IV antibiotics

3- Upper GI endoscopy

**4- IV terlipressin and antibiotics**

5- IV somatostatin

Q963. A 69 year old male presents with pyrexia of unknown origin. He has no previous medical history. He has had some recent dental work. On examination he is found to be pyrexial with a temperature of 38.5oC. On auscultation of the heart there is evidence of a pansystolic murmur in the apical region. An echo is organised and reveals a vegetation and blood cultures reveal S. bovis. He is started on IV antibiotics. What investigation must be organised for this patient?

1- Nil required

2- Repeat blood cultures

3- Upper GI endoscopy

**4- Colonoscopy**

5- Repeat echo

Q964. A 19 year old female presents with a few month history of abdominal pain, watery diarrhoea and weight loss. She has noticed on a few occasions redness of her eye causing some discomfort and bruise like lesions on her shins. A colonoscopy is performed and reveals a cobblestone appearance. Which of the following would you not expect to find on biopsy?

1- Non caseating granulomas

2- Goblet cells present

**3- Goblet cell depletion**

4- Skip lesions

5- Transmural inflammation

Q965. A 52 year old gentleman presents with lethargy, night sweats and pyrexia of unknown origin. He has a history of hypertension and is currently on ramipril. He recently has had dental treatment. On examination he is found to have a murmur and is pyrexial. An echo confirms evidence of vegetation and blood cultures reveal S. bovis. What is the most likely source of the infection?

1- Small intestine

2- Hepatic Biliary system

**3- The Colon**

4- Gallbladder

5- A dental source

Q966. A 57 year old man presents with epigastric pain radiating through to his back. This has been associated with nausea and vomiting and he has had significant weight loss in the past few months. He is known to be a heavy drinker and smoker. On examination there is evidence of epigastric tenderness. An upper GI endoscopy is performed and reveals oesophagitis. What investigation would you organise next?

1- Abdominal ultrasound

**2- CT abdomen**

3- Colonoscopy

4- Urea breath test

5- CA 19-9

Q967. A man has been found to have Peutz Jeghers syndrome. How is this normally inherited?

1- Sporadic

2- X linked

3- Autosomal recessive

4- Mitochondrial

**5- Autosomal dominant**

Q968. A 30 year old presents with diarrhoea and vomiting and abdominal cramps four hours after eating take away food. This settles down within 24 hours. What is the most likely cause of his diarrhoea?

**1- Staph. Aureus**

2- Listeria monocytogenes

3- Norovirus 4- B. Cereus

5- Campylobacter

Q969. In Wilsons disease what metabolic abnormality is likely to be found?

1- Reduced serum copper

2- Increase serum copper

3- Increased serum ceruloplasmin

**4- Decreased serum ceruloplasmin**

5- No metabolic abnormalities

Q970. A 60 year old gentleman with known alcohol excess presents with epigastric pain radiating to his back. This has occurred several times. He also describes steatorrhoea and weight loss. What is the most likely diagnosis?

1- Acute pancreatitis

**2- Chronic pancreatitis**

3- Gastritis

4- Alcoholic Liver Disease

5- Coeliac disease

Q971. Which of the following features of colonic adenoma is associated with increased risk of malignant transformation?

**1- Villous Adenoma**

2- Tubular Adenoma

3- Rapid growth

4- No family history

5- Polyp <1 cm in size

Q972. A 48 year old woman presents with dysphagia. This is both to liquids and solids. She has also associated retrosternal pain and she does sometimes regurgitate food. She has not had any weight loss. There is no past medical history and she is well otherwise. There is nil of note on examination and bloods are normal. A barium swallow is organised which shows a dilated oesophagus and birds beak appearance at the distal end of the oesophagus. What is the most likely diagnosis?

1- Chagas disease

2- GORD

3- Oesophageal cancer

4- Hiatus hernia

**5- Achalasia**

Q973. A 20 year old presents with diarrhoea. This has been ongoing for several months and she has intermittent crampy abdominal pain and feels bloated. She has noticed ulcers in her mouth and has been generally unwell and feeling tired. Her bloods reveal a macrocytic anaemia. A colonoscopy is performed and shows multiple ulcerative areas and a barium follow through shows severe small bowel disease. You suspect this young woman has Crohns Disease, which of the following is the biggest risk factor for developing this disease?

1- Poor diet

2- Coeliac disease

3- Non smoker

**4- Oral contraceptive**

5- Smoking

Q974. A 52 year old gentleman undergoes a colonoscopy due to the finding of blood in his stools. The colonoscopy revealed four polyps which were variable in size from one at 0.5cm, 2 at approximately 1.5cm and one at 2 cm. When should this patient have a follow up colonoscopy?

1- 1 year

2- 5 years

3- 6 months

4- 3 months

**5- 3 years**

Q975. How does lactulose work?

1- Bulk forming laxative

**2- Softens faecal matter**

3- Increased motility

4- Increased faecal pH

5- Reduced gastric motility

Q976. What organ lies in front of the left kidney with no separation by the visceral peritoneum?

1- Transverse colon

2- Stomach

3- Spleen

4- Jejunum

**5- Pancreas**

Q977. In chronic liver disease, what mechanism leads to gynaecomastia?

1- Excessive testosterone levels

2- Testicular Atrophy

3- Only occurs if spironolactone is prescribed

**4- Altered oestrogen metabolism**

5- Excessive corticosteroids

Q978. A 58 year old female who has a history of recurrent UTIs, for which she is on long term nitrofurantoin is found to have deranged LFTs. She is complaining of some RUQ pain and on examination there is evidence of hepatomegaly. Autoantibodies reveal a positive LKM1 and her immunoglobulins are increased. What is the most likely diagnosis?

1- NASH

2- Autoimmune hepatitis

3- Primary Biliary Cirrhosis

**4- Drug induced hepatitis**

5- ALD

Q979. An 20 year old male presents with severe epigastric pain and vomiting. His amylase is 2000 U/l. Which of the following is not used as a prognostic indicator?

1- Calcium level

**2- Inflammation on CT**

3- Oxygen level

4- Blood glucose

5- Age

Q980. What is the most likely pulmonary finding in acute respiratory distress syndrome?

1- Unilateral alveolar infiltrates

2- Increased lung compliance

3- Leukocytoses in the pulmonary aspirate

**4- Protein rich pulmonary fluid**

5- Raised capillary wedge pressure

Q981. A 50 year old gentleman is found to have iron deficiency anaemia and gives a vague history of intermittent diarrhoea. How do you investigate this patient?

1- Bronchoscopy

2- Commence iron replacement

3- CT CAP

4- Upper GI Endoscopy

**5- Colonoscopy**

Q982. A 40 year old gentleman had a previous duodenal ulcer. He had eradication therapy for H. Pylori. He has represented some six months later with similar symptoms. A repeat endoscopy is performed and shows multiple small ulcers. He is on long term omeprazole, has no past medical history and is a non smoker and takes very little alcohol. What investigation do you organise?

1- Biopsy of ulcers

**2- Gastrin levels**

3- Repeat H pylori eradication and a further OGD in 3 months time

4- Colonoscopy

5- CT abdomen

Q983. A 52 year old gentleman presents with symptoms of dyspepsia and heartburn. He has a past medical history of hypertension. He does not drink excessively and is a non smoker. On examination there is some mild epigastric tenderness but there is no evidence of any supraclavicular nodes. An endoscopy is performed and reveals an ulcer which is biopsied. The pathology comes back and it looks like a low grade MALToma. What is the most appropriate management of this patient?

1- Chemotherapy

2- Omeprazole

**3- H pylori eradication**

4- Radiotherapy

5- Oesophagectomy

Q984. A 28 year old female presents with a history of diarrhoea for numerous years. She has been off work on several occasions due to this. On examination this is unremarkable and her bloods are normal except for a low potassium. She is brought into hospital for assessment and is asked to keep a stool chart which shows no evidence of diarrhoea. A colonoscopy is performed and this reveals no evidence of inflammatory bowel disease but does show evidence of melinosis coli. What is the most likely diagnosis?

1- Microscopic colitis

**2- Laxative abuse**

3- Coeliac disease

4- IBD

5- Zollinger Ellison syndrome

Q985. A 92 year old gentleman presents to his GP with abdominal discomfort, bloating, flatulence and intermittent diarrhoea. He has previously had a partial gastrectomy due to gastric carcinoma. There is nil of note on examination and his bloods results show a macrocytic anaemia. What investigation would you next organise?

1- Upper GI endoscopy

2- CT abdomen

**3- Hydrogen breath test**

4- Colonoscopy

5- Serum B12

Q986. A 59 year old gentleman presents with melaena. He is known to have hypertension and severe aortic stenosis. On examination there is an ejection systolic murmur and on examination of the chest and abdomen there is no abnormalities detected. His bloods reveal a microcytic anaemia and upper GI endoscopy is normal. What is the next investigation to be performed?

1- CT abdomen

2- Colonoscopy

3- Haematinics

4- Small intestine follow through

**5- Mesenteric angiography**

Q987. A 30 year old presents with itching to the GP. She has also noticed she has been increasingly tired and also complains of an ache in her abdomen. She is also known to have a history of type 1 diabetes mellitus. A full blood count, Us and Es and autoantibodies are checked. Her autoantibodies reveal anti LKM1 and raised IgG levels. What blood investigation would you now perform?

1- Repeat autoantibodies

2- Inflammatory markers

3- Blood film

**4- LFTs**

5- TFTs

Q988. A patient is post ERCP and develops severe epigastric pain. Given the likely diagnosis, how would you manage this patient?

1- Repeat ERCP

2- Analgesia

3- CT Abdomen

4- Laparotomy

**5- IV fluids, analgesia and antibiotics**

Q989. Which artery supplies the posterior aspect of the duodenum?

1- Anterior Superior Pancreaticoduodenal artery

2- Superior mesenteric artery

3- Gastroduodenal artery

**4- Posterior superior Pancreaticoduodenal artery**

5- Splenic artery

Q990. A patient with Crohns disease presents with right upper abdominal pain, swinging pyrexia, night sweats and some weight loss. An ultrasound is performed and reveals an abscess within the liver which is thought to be secondary to a bacterial infection. What empirical antibiotic regime should be commenced?

1- Vancomycin and metronidazole

2- Clindamycin

3- Azithromycin

**4- Amoxicillin and metronidazole**

5- Vancomycin

Q991. What food is a good source of vitamin D?

1- Salmon

**2- Herring**

3- Green leafy vegetables

4- Egg plant

5- Red meat

Q992. A 40 year old female known to have acid reflux presents to the clinic with severe burning in her throat and she has also been recently diagnosed with asthma and she has had several LRTIs this year. She is on high doses of omeprazole daily. Her GI endoscopy show severe oesophagitis as on her previous scope several years ago. What is the next best treatment plan?

1- No change

2- Lifestyle changes

**3- Fundoplication**

4- Addition of ranitidine

5- Improve inhaler technique

Q993. A 53 year old gentleman has recently been diagnosed with a gastrointestinal stromal tumour and has begun treatment with Imatinib. What is the mechanism of action of Imatinib?

1- Anti TNF alpha

2- Tyrosine kinase receptor Inhibitor

**3- Tyrosine Kinase Inhibition**

4- T cell inhibition

5- Production of nitric Oxide

Q994. A 20 year old goes back packing through India. On his return he develops a diarrhoeal illness which is very watery and he is moving his bowels twenty times a day. It is associated with abdominal cramps. He had a vasovagal episode due to dehydration and presents to A and E. A stool sample is taken for culture and appears like rice water. If a stool culture confirms vibrio cholera as suspected, what is the most appropriate antibiotic to use?

1- Oral metronidazole

2- IV metronidazole

3- No antibiotic

4- IV ciprofloxacin

**5- Doxycycline**

Q995. A 60 year old gentleman presents to his GP with tiredness and increased shortness of breath. Bloods reveal a microcytic hypochromic anaemia and he is subsequently found to have iron deficiency anaemia. There is no evidence of any GI symptoms. What investigation s most appropriate to organise in this case?

1- Recheck bloods in three months time after iron supplementation

2- Upper GI endoscopy

**3- Colonoscopy**

4- Flexible Sigmoidoscopy

5- CT Chest Abdomen and Pelvis

Q996. What food contains the largest amount of folic acid?

1- Kiwi

2- Banana

3- Beans

4- Green leafy vegetables

**5- Liver**

Q997. Where are the majority of polypeptides absorbed?

1- Stomach

2- Duodenum

**3- Small intestine**

4- Oesophagus

5- Large Intestine

Q998. A patient has just been diagnosed with a Dukes A tumour, when should a further colonoscopy be organised?

1- Every 6 months

2- Every 2 years

**3- Annually**

4- Every 3 months

5- Every 5 years

Q999. A 50 year old gentleman with ischaemic heart disease who is on aspirin presents with haematemesis. What is the most likely reason for his haematemesis?

1- Gastritis

**2- Gastric erosions**

3- Duodenal ulcer

4- Angiodysplastic Lesion

5- Oesophageal varices

Q1000. What is the most likely cause of a Mallory Weiss tear?

1- Candidiasis

2- Coughing

3- Barretts oesophagus

4- Alcohol

**5- Persistently vomiting**

Q1001. A 45 year old gentleman presents with black stools for the last 2 days. He is asymptomatic otherwise. On examination there is evidence of peripheral stigmata of liver disease. His heart rate is 105 and although his blood pressure is satisfactory he has a significant postural drop. He is fluid resuscitated. After stabilising this patient, what investigation would you next do?

1- Abdominal X ray

2- Barium meal and follow through

3- Abdominal ultrasound

4- Colonoscopy

**5- Upper GI endoscopy**

Q1002. What differentiates Crohns disease from Ulcerative Colitis?

1- Primary sclerosing cholangitis

2- Weight loss

3- Mouth Ulcers

**4- Skip lesions**

5- Bloody diarrhoea

Q1003. A 56 year old gentleman presents to his GP with dyspepsia, early satiety and he also noticed he has lost some weight over the last few months. On examination there is evidence of an epigastric mass and left sided supraclavicular nodes. He is found to have a microcytic anaemia. What investigation should be organised?

1- CT Chest Abdomen and Pelvis

2- Colonoscopy

3- Abdominal Xray

**4- Upper GI endoscopy**

5- Barium meal and follow through

Q1004. What factor is not associated with an increased risk of developing a peptic ulcer? 1- H. pylori infection

2- Smoking

**3- Stress**

4- NSAIDs

5- Zollinger Ellison syndrome

Q1005. A 34 year old has presented with recurrent heart burn. An upper GI endoscopy is performed and reveals a Barretts Oesophagus with mild dysplastic change occurring at the gastrocardiac junction. What is the next stage in the management?

**1- PPI introduction and repeat endoscopy**

2- Oesophagectomy

3- Gastrectomy

4- Lifestyle advice

5- Fundoplication

Q1006. Which of the following features of Haemochromatosis responds with venesection?

1- Testicular atrophy

2- Arthropathy

3- Diabetes

**4- Cardiomyopathy**

5- Cirrhosis

Q1007. A 65 year old gentleman has been referred due to jaundice. His LFTs show an increased bilirubin and ALP and a transaminitis. He has recently had a course of co amoxiclav and he has a past medical history of osteoarthritis for which he takes naproxen occasionally. He is not known to drink excessively and has no family history of liver disease. An ultrasound of the abdomen shows no abnormalities. What is the most likely cause of his jaundice and deranged LFTs?

1- Naproxen

2- Hepatitis A

**3- Co amoxiclav**

4- Gallstones

5- Wilsons disease

Q1008. A 50 year old male has a six month history of acid reflux and occasionally feels his food sticking. An upper GI endoscopy is organised and a biopsy reveals a transformation of the normal squamous mucosa of the oesophagus to columnar epithelium. What is the most likely diagnosis?

1- Oesophageal Cancer

**2- GORD**

3- Oesophagitis

4- Barretts oesophagus

5- Gastritis

Q1009. Which of the following drugs is most likely to have caused a cholestatic jaundice even when taken at the correct dosage?

1- Paracetamol

2- Amoxicillin

3- Naproxen

4- Phenytoin

**5- Flucloxacillin**

Q1010. A 38 year old female who has a history of type 2 diabetes mellitus and obesity is found to have deranged LFTs. What is the most likely cause?

**1- Non alcoholic steatohepatitis**

2- Alcoholic Liver Disease

3- Metformin related

4- Primary Sclerosing Cholangitis

5- Autoimmune hepatitis

Q1011. A 56 year old male with liver disease and poor nutrition develops alopecia, dermatitis and paronychia. Which vitamin deficiency can lead to these symptoms?

1- Magnesium

2- Selenium

3- Thiamine

4- Calcium

**5- Zinc**

Q1012. Which of the following contributes the most to weight loss in colorectal cancer?

1- Chemotherapy

2- Depression

3- Diarrhoea

4- TNF a

**5- Anorexia**

Q1013. A 50 year old gentleman presents with epigastric pain and heartburn. He has also had some diarrhoea and weight loss. An upper GI endoscopy is performed and shows multiple gastric and duodenal ulcers. What is the most likely diagnosis?

1- MALToma

**2- Zollinger Ellison syndrome 3- H. Pylori**

4- Gastric Cancer

5- Peptic ulcer disease

Q1014. A 42 year old male presents with dyspepsia. He is otherwise well and there is nil of note on examination except a tender epigastrium. How would you manage this patient?

1- Upper GI endoscopy

**2- Urea breath test and eradication if positive**

3- Omeprazole 4- H. Pylori Serology 5- H. Pylori eradication therapy

Q1015. What is the best way to monitor a patients nutritional status?

1- Albumin

2- BMI

3- Serum levels of elements

**4- Clinically**

5- Weight

Q1016. Smooth muscle antibodies are most likely to be raised in which of the following?

1- Primary pulmonary hypertension

2- Primary Biliary Sclerosis

3- Primary Sclerosing Cholangitis

4- Infectious mononucleosis

**5- Autoimmune active hepatitis**

Q1017. If a patient has HIV what is the most likely cause of persistent watery diarrhoea?

1- Colorectal cancer

**2- Cryptosporidium**

3- Secondary to HAART therapy

4- Salmonella

5- Seroconversion

Q1018. How would you initially assess someone if you suspect they have Coeliac disease?

**1- Antiendomysial antibodies**

2- Jejunal biopsy

3- Trial of gluten free diet

4- GAD autoantibodies

5- Antireticulin antibodies

Q1019. When assessing a patient for bowel obstruction, what is the first investigation that should be carried out which will provide the diagnosis?

1- CT Abdomen

2- Ultrasound

3- Chest Xray

4- PR examination

**5- Abdominal Xray**

Q1020. A 45 year old gentleman presents with rectal bleeding. He also describes tenesmus. A flexible sigmoidoscopy is performed and reveals an erythematous and friable mucosa with some superficial ulceration. Biopsies are taken. How should this patient be managed initially?

**1- Rectal mesalazine**

2- IV hydrocortisone

3- Oral Mesalazine

4- Rectal prednisolone

5- Prednisolone

Q1021. A 24 year old student presents with a 6 month history of watery diarrhoea. She complains intermittently of right sided abdominal pain, is feeling generally unwell and feverish at times. She has lost about 2 stones in weight. On examination she is tender in her RIF and there is evidence of finger clubbing. There is nil else to find including in a rectal exam and her bloods reveal raised inflammatory markers. What is the most likely diagnosis?

**1- Crohns Disease**

2- Irritable bowel syndrome

3- Mesenteric Adenitis

4- Diverticular disease

5- Ulcerative colitis

Q1022. A patient with previous history of ulcerative colitis develops pruritus. She has also noticed her sclerae becoming yellow. Her LFTs are deranged and her ANCA is positive. What is the most likely diagnosis?

1- Drug related

2- Autoimmune hepatitis

3- Gallstones

4- Primary biliary cirrhosis

**5- Primary sclerosing cholangitis**

Q1023. Which virus is most likely to lead to fulminant hepatic failure?

**1- Hepatitis A**

2- EBV

3- CMV

4- Hepatitis C

5- Hepatitis B

Q1024. How should you manage a patient with ascites?

1- Low salt diet

2- Paracentesis for all patients initially

**3- Ensure renal function satisfactory and ascites not tense and introduce spironolactone**

4- Ultrasound

5- Ensure renal function satisfactory and ascites not tense and introduce furosemide

Q1025. A 50 year old male presents with weight gain mainly around the face and trunk. He has also noticed his arms and legs feeling weak especially when trying to get up from a seat. He has noticed he is easily bruising and there is evidence of striae. He is found to be hypertensive and hypokalaemic. Which investigation should be performed initially?

1- Urinary Catecholamines

2- CT Head and abdomen

3- ACTH measurement

**4- 24 hour free urinary cortisol**

5- High dose dexamethasone

# Chapter 6 Haematology

Q1026. In which of the following situations, should a patient not be given low molecular weight heparin prophylaxis antenatally?

1- Previous DVT and first degree relative with history of DVT

2- Previous pregnancy related DVT but no evidence thrombophilia

3- Previous DVT and proven thrombophilia

**4- First degree relative with history of DVT**

5- Recurrent DVT

Q1027. A 60 year old male presents with fatigue, night sweats and weight loss. He has also noticed his stomach feeling bloated and distended. On examination there is evidence of splenomegaly. Bloods reveal a normochromic, normocytic anaemia, elevated white cell counts and slightly elevated platelets. A blood film reveals myeloid cells are various stages of development. Cytogenetic analysis and PCR reveals the Philadelphia chromosome and BCR ABL. What is the most likely diagnosis?

1- Myelofibrosis

**2- Chronic myeloid leukaemia**

3- Chronic lymphocytic leukaemia

4- Multiple Myeloma

5- Acute myeloid leukaemia

Q1028. A 60 year old female is suffering from back pain which has woken her from her sleep for the last few months. She has also noticed feeling thirsty and has been more constipated. Bloods reveal a normochromic normocytic anaemia, thrombocytopenia, leucopenia, renal impairment and hypercalcaemia. What is the most likely diagnosis?

1- Amyloidosis

2- Monoclonal gammopathy of undetermined significance

3- Non Hodgkins lymphoma

**4- Multiple myeloma**

5- B12 deficiency

Q1029. A patient presents with night sweats, fever and weight loss. She has also noticed a lump in her neck. On examination there is evidence of cervical lymphadenopathy. Which investigation will give the definitive diagnosis?

1- Bone marrow biopsy

2- Peripheral blood film

**3- Lymph node biopsy**

4- Chest X ray

5- CT thorax

Q1030. A 53 year old male presents as he has been suffering from flushing. This is worst after alcohol and caffeinated drinks. He has intermittent diarrhoea, abdominal pain and wheezing. On examination there is evidence of a right sided abdominal mass. What is the most likely diagnosis?

1- Phaeochromocytoma

2- Asthma

3- Lymphoma

**4- Carcinoid Tumour**

5- MEN type 1

Q1031. A 53 year old male presents as he has been suffering from flushing. This is worst after alcohol and caffeinated drinks. He has intermittent diarrhoea, abdominal pain and wheezing. On examination there is evidence of a right sided abdominal mass. Which of the following investigations is most useful for the diagnosis?

**1- Urinary 5 hydroxyindoleacetic acid**

2- MRI adrenals

3- CT abdomen

4- Urinary catecholamines

5- CEA

Q1032. A 35 year old female presents with her second DVT. She has also had four miscarriages and has livedo reticularis. She has no other past medical history and is not on any regular medications. Which of the following will be useful in confirming the suspected diagnosis?

1- Coagulation profile

**2- Anticardiolipin antibodies**

3- Protein S level

4- Factor V leiden mutation

5- Protein C level

Q1033. A patient who is on warfarin for atrial fibrillation presents with severe abdominal pain. She has been on steroids for a recent flare of COPD. She is hypotensive and tachycardic and you suspect she may have had a retroperitoneal perforation. Her INR is 8.0, Hb is 7.2 and platelets 132. She is given 5mg of IV vitamin K. What other management is required for her INR?

1- Nil else required

2- Platelet transfusion

**3- Prothrombin complex concentrate**

4- Fresh frozen plasma

5- Blood transfusion

Q1034. A 32 year old Cypriot female is found to have a hypochromic microcytic anaemia with target cells. Her iron and ferritin are at the higher end of normal and her Hb A2 is 6%. What is the most likely diagnosis?

**1- Beta thalassaemia trait**

2- Anaemia of chronic disease

3- Iron deficiency anaemia

4- Alpha thalassaemia minor

5- Sideroblastic anaemia

Q1035. A 35 year old gentleman undergoes minor surgery and bleeds profusely following this. You note that bloods prior to his surgery reveal a prolonged APTT, normal PT and bleeding time. He states that as a child he would bruise easily and after teeth being extracted he would bleed for a long time. What is the most likely diagnosis?

1- Haemophilia A

**2- Haemophilia B**

3- Von willebrands disease

4- Thrombocytopenia

5- Liver disease

Q1036. A patient with chronic venous insufficiency is about to travel to Australia. He has never had a DVT but is concerned about the risk of developing one. He is given compression stockings. He is given advice about exercises to perform during the flight and other general advice. What additional steps should be taken?

**1- No further action**

2- Warfarin

3- Start 150mg aspirin

4- Start 75mg aspirin

5- Low molecular weight heparin

Q1037. A patient is referred to the haematology clinic due to a slightly elevated platelet count which has been repeated several times during the year. She is very well and states she has no PMH but had an operation as child although she is unsure of what this was for. Her Haemoglobin and white cell count is normal. A blood film does not show giant platelets or platelet clumps but does reveal Howell Jolly bodies. How would you investigate next?

1- Septic screen

**2- Repeat history and examination for indication of a splenectomy**

3- Bone Marrow Biopsy

4- Haematinics

5- Tumour markers

Q1038. A 26 year old female presents to her GP after noticing her urine has been a dark brown colour. She admits to feeling increasingly tired over the last few months and has noticed herself bruising easily. Bloods reveal a low haemoglobin which is macrocytic. She also has low platelets and evidence of increased LDH, low haptoglobin and increased reticulocyte count. A dipstick reveals haematuria however microscopy does not reveal in red blood cells. What is the most likely diagnosis?

1- Spherocytosis

2- Autoimmune haemolytic anaemia

3- Folate deficiency

4- Immune Thrombocytopenic purpura

**5- Paroxysmal nocturnal haemoglobinuria**

Q1039. A 60 year old female is suffering from back pain which has woken her from her sleep for the last few months. An xray reveals vertebral collapse and lytic lesions. She has also noticed feeling thirsty and has been more constipated. Bloods reveal a normochromic normocytic anaemia, thrombocytopenia, leucopenia, renal impairment and hypercalcaemia. What investigation will provide a definitive diagnosis?

1- Bone marrow biopsy

2- Bence Jones protein

3- MRI

**4- Serum protein electrophoresis**

5- Peripheral blood film

Q1040. A patient with sickle cell anaemia has chronic joint pain. She develops a sudden onset of severe pain in her hands. Which of the following will confirm this is a vasoocclusive crisis rather than her chronic pain and will alter management?

1- Reticulocyte count

2- Haemoglobin electrophoresis

**3- None of these options**

4- Haemoglobin

5- Sickle cell solubility

Q1041. Which of the following is thought to be useful in reducing pain crises in sickle cell anaemia?

1- Methotrexate

**2- Hydroxyurea**

3- NSAIDs

4- Azathioprine

5- Hydroxychloroquine

Q1042. A patient is undergoing a blood transfusion when she begins to feel feverish and unwell. She is tachycardic and hypotensive and is suffering from flank pain. Her coombs test is positive. What is the most likely diagnosis?

1- Sepsis

2- Febrile non haemolytic reaction

3- Bacterial contamination

4- Transfusion related lung injury

**5- Acute haemolytic reaction**

Q1043. All trans retinoic acid is utilised in the management of promyelocytic leukaemia. What is its mechanism of action?

1- Promotes differentiation of mature cells into blast cells

2- Prevents division of blasts cells

3- Leads to apoptosis of blast cells

**4- Promotes differentiation of blast cells into mature cells**

5- Acts as a granulocyte colony stimulating factor

Q1044. A 69 year old male is found incidentally to have an elevated WCC. Differential count reveals a lymphocyte count of 30x10(9). His haemoglobin is 13.9 and his platelets are 290. A blood film reveals smear cells. There is evidence of axillary lymphadenopathy. He is feeling well and is not on any regular medications except paracetamol for osteoarthritis. The diagnosis of Chronic Lymphocytic Leukaemia is confirmed. Which of the following is the next appropriate management stage?

1- Stem Cell Transplant

**2- Monitor with regular blood tests**

3- Radiation therapy

4- Commence chemotherapy with chlorambucil

5- Commence chemotherapy with cyclophosphamide + doxorubicin + prednisolone

Q1045. A 60 year old female has been diagnosed with Chronic Lymphocytic Leukaemia. Which of the following would be an indication for commencing treatment?

1- Lymphocyte doubling time of 12 months

**2- Extreme Fatigue**

3- Lymphocyte count of 50 - asymptomatic

4- Haemoglobin of 11.0 (baseline 12.5)

5- Cytogenetics of del 13q14

Q1046. A 9 year old girl is brought to her GP. Her mother has noticed that she appears jaundice. She is feeling very tired. This has happened on intermittently on several occasions. On examination she appears jaundice and there is evidence of splenomegaly. There is family history with the patient's mother and grandmother suffering from anaemia. Bloods reveal an elevated unconjugated bilirubin and LDH. There is evidence of an elevated reticulocyte count. A blood film reveals reticulocytes and spherocytes. A direct antiglobulin test is negative. Which of the following is the most likely diagnosis?

1- Gibert's Syndrome

2- Liver Disease

3- Acute Leukaemia

4- Autoimmune Haemolytic Anaemia

**5- Hereditary Spherocytosis**

Q1047. A 9 year old girl is brought to her GP. Her mother has noticed that she appears jaundice. She is feeling very tired. This has happened intermittently on several occasions. On examination she appears jaundice and there is evidence of splenomegaly. Bloods reveal an elevated unconjugated bilirubin and LDH. There is evidence of an elevated reticulocyte count. A blood film reveals reticulocytes and spherocytes. Which of the following is the most useful in differentiating hereditary spherocytosis from autoimmune haemolytic anaemia?

**1- Direct Antiglobulin Test**

2- Osmotic gradient ektacytometry

3- Haptoglobin

4- Bone marrow biopsy

5- Osmotic fragility test

Q1048. A 56 year old gentleman presents with loin pain. He also has felt feverish and has noticed an enlarged left testicle which feels like a bag of worms. He is found to be hypertensive and urinalysis reveals microscopic haematuria. Bloods reveal a normochromic normocytic anaemia. What is the most likely diagnosis?

1- Prostate carcinoma

2- Varicocele

**3- Renal cell carcinoma**

4- Bladder transitional cell carcinoma

5- Testicular carcinoma

Q1049. A 72 year old female has been admitted for permanent pacemaker insertion. She has a full length compression bandage on her left arm. She has previously had treatment for breast cancer. Which of the following is the most likely diagnosis?

**1- Lymphoedema**

2- Breast cancer recurrence

3- Venous Ulceration

4- Carcinomatous Lymphangitis

5- Arterial Ulceration

Q1050. A patient with acute myeloid leukaemia presents with disseminated intravascular coagulation. What chromosomal abnormality would you expect to find?

1- Inv 16

2- t(8; 21)

**3- t(15;17)**

4- t(9;22)

5- 11q23

Q1051. A patient with ALL receives an allogeneic bone marrow transplant. He then about one week later develops fever with an erythrodermic rash with desquamation. He also appears jaundice and is suffering from severe watery diarrhoea. Given the most likely diagnosis, which of the following reduces the risk of the development?

1- Corticosteroids

2- Antivirals

3- Antifungals

4- Broad spectrum antibiotics

**5- Nonmyeloablative allogeneic stem cell transplantation**

Q1052. A 65 year old male presents with right upper quadrant pain. He has noticed increased abdominal swelling. On examination he has hepatomegaly and ascites. He has a past medical history of polycythaemia rubra vera. What is the most likely diagnosis?

1- Pancreatic cancer

2- Gallstones

3- Hepatic metastases

4- Alcoholic liver disease

**5- Budd Chiari syndrome**

Q1053. A 14 year old male attends his GP. He has noticed after playing football he appears yellow. He is currently unwell with a cold and has also noticed this yellow discolouration. On examination his sclerae are yellow. There is nil else of note on examination. There is no discolouration of his faeces or urine. Bloods reveal a bilirubin of 50 but other liver function tests are normal. The Hb is 14 g/l. The reticulocyte count is 25. Which of the following is the most likely diagnosis?

1- Hereditary Elliptocytosis

**2- Gilbert's Syndrome**

3- Crigler-Najjar Syndrome Type 2

4- Crigler-Najjar Syndrome Type 1

5- Hereditary Spherocytosis

Q1054. A 35 year old female presents with fatigue, aches and pains, night sweats and pruritus. She also has diarrhoea, shortness of breath and a dry cough. Bloods reveal a markedly elevated eosinophil count, thrombocytopenia and elevated ESR. There is no clear evidence to suggest allergies, asthma or parasitic infection and a bone marrow biopsy does not suggest malignancy. Which of the following is the most likely diagnosis?

1- Asthma

**2- Hypereosinophilic syndrome**

3- Eosinophil malignancy

4- Parasitic Infection

5- Allergic alveolitis

Q1055. A 35 year old female presents with fatigue, aches and pains, night sweats and pruritus. She is also experiencing diarrhoea, shortness of breath and dry cough. Bloods reveal a markedly elevated eosinophil count, thrombocytopenia and elevated ESR. There is no clear evidence to suggest allergies, asthma or parasitic infection and a bone marrow biopsy does not suggest malignancy. How should you manage this patient?

1- Imatinib

2- Hydroxyurea

**3- Corticosteroids**

4- Nil required

5- Interferon alpha

Q1056. A 24 year old male presents to his GP after passing dark urine. He is otherwise fit and well. His urinalysis is positive for blood however microscopy does not reveal any evidence of red cells. Bloods reveal nil except a low haemoglobin. What is the most likely diagnosis?

1- Renal cell carcinoma

2- Glucose 6 phosphate dehydrogenase deficiency

3- Liver disease

4- Haematuria

**5- Paroxysmal nocturnal haemoglobinuria**

Q1057. A patient has recently been commenced on antimalarials. She presents feeling short of breath, anxious and has a headache. She has also noticed some discolouration of her mouth and tongue. On examination she is tachypneoic and cyanotic. Her chest is clear and her heart sounds are pure. ABGs do not show respiratory failure. Her CXR and bloods are normal. What is your next step?

1- Ventilation Perfusion Scan

2- Nil

**3- Commence methylene blue**

4- Repeat ABGs

5- CTPA

Q1058. In polycythaemia Rubra Vera which of the following mutational analysis should be performed?

1- BCR-ABL

2- NOTCH1

3- p53

**4- JAK2**

5- BRCA1

Q1059. A 65 year old male with multiple myeloma presents with severe back pain. There is evidence of bilateral leg weakness and urinary retention. An Xray reveals vertebral collapse at L4. What is the treatment of choice?

1- IV steroids

2- Surgical decompression

3- Chemotherapy

4- Vertebroplasty

**5- Local radiotherapy**

Q1060. A 14 year old male has been unwell with a flu like illness with fever, arthralgia and general malaise. He has also noticed that he easily bruises and has noticed some blood in his urine. On examination he is pyrexial, jaundiced and there is evidence of purpura. Bloods reveal anaemia, thrombocytopenia. raised reticulocyte count, elevated LDH, increased bilirubin and renal failure. A blood film reveals schistocytes. What is the most likely diagnosis?

1- Haemolytic anaemia

2- Henoch Schönlein Purpura

3- Idiopathic thrombocytopenic purpura

**4- Thrombotic thrombocytopenic purpura**

5- Haemolytic uraemic syndrome

Q1061. A patient with hepatitis C presents with arthralgia. He has evidence of purpuric lesions and there is evidence of proteinuria and haematuria. Cryoglobulins are elevated. The rheumatoid factor is monoclonal. What is the most likely diagnosis?

1- Amyloidosis

2- Type I cryoglobulinaemia

**3- Type 2 cryoglobulinaemia**

4- Type 3 cryoglobulinaemia

5- Multiple myeloma

Q1062. A 50 year old gentleman presents with pruritus. This is most marked after a hot shower. He is also having intermittent headaches and dizziness. Over the last few days he has noticed swelling of his left calf. Bloods reveal a raised haemoglobin, increased packed cell volume and mildly elevated platelets and white cells. JAK2 mutational analysis is positive. Which of the following is the most appropriate treatment?

1- Venesection

2- Aspirin and Venesection

3- Chlorambucil

**4- Hydroxycarbamide**

5- Aspirin

Q1063. A 47 year old male is undergoing chemotherapy for high grade non Hodgkins Lymphoma with bulky disease. Which of the following should be administered before commencing chemotherapy?

1- IV sodium bicarbonate

2- Nil required

3- IV Hydration

4- Dexamethasone

**5- IV Hydration and Allopurinol**

Q1064. A patient with chronic lymphocytic leukaemia develops hypersplenism and pancytopenia. How should this be managed?

1- Bone marrow transplantation

2- Chemotherapy

**3- Splenectomy**

4- Corticosteroids

5- Radiotherapy

Q1065. A patient post operatively is found to have a prolonged APTT, high normal PT, prolonged TT and normal reptilase. What does this indicate?

**1- Contamination of sample with heparin**

2- DIC

3- Von Willebrands disease

4- Dysfibrinogenaemia

5- Liver disease

Q1066. A 12 year old girl presents with profuse diarrhoea. It was initially watery and then became bloody. She was unwell with fever, abdominal pain, petechial rash and vomiting. Bloods reveal a low haemoglobin, LDH and bilirubin, low platelets and acute renal failure. Coombs test is negative. What other features would likely be found on blood film?

1- Howell Jolly bodies

2- Ellipocytes

3- Bite Cells

4- Target cells

**5- Fragmented Red Cells**

Q1067. Imatinib is utilised in the management of Chronic Myeloid Leukaemia. What is its mechanism of action?

1- Tyrosine Kinase Activator

2- PPAR gamma activator

3- PPAR gamma inhibitor

4- Tyrosine kinase receptor blocker

**5- Tyrosine Kinase inhibitor**

Q1068. A patient with septicaemia begins to bleed from her nose, ear and venflon sites. A coagulation screen reveals prolonged PT and APTT and a low fibrinogen and platelet count. Given the most likely diagnosis, which investigation will aid in confirming the diagnosis?

1- Nil required

**2- D dimers**

3- Blood cultures

4- Thrombin time

5- Bleeding time

Q1069. A coagulation screen reveals a normal PT, prolonged APTT and a prolonged bleeding time. What is the most likely diagnosis?

1- Warfarin therapy

**2- von Willebrands disease**

3- Haemophilia A

4- Disseminated intravascular coagulation

5- Factor V Leiden

Q1070. A pregnant patient is found to have a macrocytic anaemia in her third trimester. What is the most likely cause?

1- Vitamin B12 deficiency

**2- Folate deficiency**

3- Dilutional

4- Iron deficiency

5- Hypothyroid

Q1071. A 28 year old female presents feeling very tired, short of breath on exertion and palpitations for the last few days. She has recently had a course of cefalexin for a Urinary tract infection. She is otherwise normally fit and well. On examination the patient looks pale and the sclerae appear yellow. She is tachycardic. Bloods reveal a low haemoglobin with a high reticulocyte count and evidence of spherocytes on the blood film. Her bilirubin was elevated (majority being unconjugate d) but the rest of her LFTs were normal and her LDH was elevated. A direct Coombs test was positive.

1- Cold autoimmune haemolytic anaemia

2- Warm autoimmune haemolytic anaemia

3- Gallstones

4- Hereditary spherocytosis

**5- Drug induced immune haemolytic anaemia**

Q1072. A 26 year old female presents to her GP after noticing her urine has been a dark brown colour. She admits to feeling increasingly tired over the last few months and has noticed herself bruising easily. Bloods reveal a low haemoglobin which is macrocytic. She also has low platelets and evidence of increased LDH, low haptoglobin and increased reticulocyte count. A dipstick reveals haematuria however microscopy does not reveal in red blood cells. What test would provide the definitive diagnosis?

1- Bone marrow biopsy

2- Hams test

3- Sugar water test

**4- Flow cytometry**

5- LDH

Q1073. A patient with Rheumatoid arthritis is found to have a pancytopenia. She has been stable on her medication for many years. On examination there is evidence of splenomegaly. What Is the most likely diagnosis?

1- Medication related

2- Myelodysplasia

3- Aplastic anaemia

**4- Feltys syndrome**

5- B12 deficiency

Q1074. A 19 year old female presents to her GP having noticed a painless enlarging lump in her neck. She has suffered some weight loss, pruritus and night sweats. There is evidence of a mediastinal mass on chest Xray. What is the most likely diagnosis?

1- Infectious Mononucleosis

2- Non Hodgkins lymphoma

3- Leukaemia

4- Systemic lupus erythematous

**5- Hodgkins Lymphoma**

Q1075. In nephrotic syndrome, what is the mechanism leading to a prothrombotic state?

1- Increased fibrinolysis

2- Dysfunctional von Willebrands

3- Loss of von Willebrands

**4- Loss of antithrombin III**

5- Factor V Leiden

Q1076. A 68 year old female is brought to A and E following a seizure. She is drowsy. She has no past medical history of note. On examination her GCS is 10 and she appears post ictal. A general examination reveals an irregular hard mass in her right breast. Bloods are normal. What is the most likely diagnosis?

1- Subarachnoid haemorrhage

2- Glioblastoma

3- Meningioma

4- Stroke

**5- Cerebral metastases**

Q1077. A patient with mild haemophilia A is to undergo a minor surgical procedure. How should you manage this patient?

**1- DDAVP**

2- Cryoprecipitate

3- Nil required

4- Factor IX concentrate

5- Fresh frozen plasma

Q1078. A 45 year old female presents with night sweats, fever and weight loss. She has been extremely tired. On examination there is generalised lymphadenopathy and splenomegaly. Bloods reveal a dramatically increased white cell count however a low haemoglobin and platelet count. Lymphoma is suspected and a lymph node biopsy performed. Cytogenetics reveal a T(11;14) translocation. What is the most likely diagnosis?

1- Chronic lymphocytic leukaemia

2- Follicular lymphoma

**3- Mantle cell lymphoma**

4- Hairy cell leukaemia

5- Diffuse large cell lymphoma

Q1079. Which of the following is the most common cause of familial thrombophilia?

**1- Factor V Leiden mutation**

2- Antiphospholipid syndrome

3- Prothrombin mutation

4- Protein C and S deficiencies

5- Antithrombin deficiency

Q1080. Which of the following genetic mutations is associated with the worst prognosis in acute lymphoblastic leukaemia?

1- inv 16

2- t(4;11)

**3- t(9;22)**

4- t(12;21)

5- t(1;19)

Q1081. A 21 year old female presents with increased frequency of nose bleeds. She has also noticed easy bruising and bleeding from her gums. Bloods reveal a slightly low haemoglobin, normal white cell count and platelets of 15. Blood film confirm thrombocytopenia with the platelets which are present being large in size. She is otherwise fit and well and is n no medications. There is nil of note on examination. What is the most likely diagnosis?

**1- Idiopathic thrombocytopenic purpura**

2- Aplastic anaemia

3- Leukaemia

4- Drug related thrombocytopenia

5- von Willebrands disease

Q1082. A 21 year old female presents with increased frequency of nose bleeds. She has also noticed easy bruising and bleeding from her gums. Bloods reveal a slightly low haemoglobin, normal white cell count and platelets of 15. Blood film confirm thrombocytopenia with the platelets which are present being large in size. She is otherwise fit and well and is on no medications. There is nil of note on examination. What treatment should be initiated?

1- IV Immunoglobulin

**2- Corticosteroids**

3- Cyclophosphamide

4- Azathioprine

5- Splenectomy

Q1083. A patient with von Willebrands disease is requiring surgery. How should you manage this patient?

1- Cryoprecipitate

2- Steroids

**3- DDAVP and tranexamic acid**

4- Fresh frozen plasma

5- Platelet transfusion

Q1084. What drug therapy should be utilised in a patient with essential thrombocythaemia?

1- IV Immunoglobulin

2- Aspirin

3- Clopidogrel

4- Dalterparin

**5- Aspirin and hydroxyurea**

Q1085. A 35 year old female presents with menorrhagia. She also gives a history of epistaxis. Bloods reveal a normal prothrombin time and platelet count however a prolonged bleeding time and APTT. LFTs are normal. What is the most likely diagnosis?

**1- Von Willebrands disease**

2- Haemophilia A

3- Prothrombin mutation

4- Disseminated intravascular coagulation

5- Factor V Leiden

Q1086. Which of the following is not associated with a poor prognosis in Hodgkins lymphoma?

1- High ESR

2- Presence of B symptoms

3- Lymphocyte depleted disease

4- Lymphopenia

**5- Young age**

Q1087. A 12 year old girl presents with profuse diarrhoea. It was initially watery and then became bloody. She was unwell with fever, abdominal pain, petechial rash and vomiting. Bloods reveal a low haemoglobin with elevated reticulocytes, LDH and bilirubin, low platelets and acute renal failure. Coombs test is negative. What is the most likely diagnosis?

1- Acute leukaemia

2- Gastroenteritis

3- Ulcerative Colitis

**4- Haemolytic uraemic syndrome**

5- Thrombotic thrombocytopenic purpura

Q1088. Following a splenectomy, which complication is the biggest risk?

1- Thrombosis

2- Bleeding

**3- Infection**

4- Pulmonary fibrosis

5- Lymphoma

Q1089. A 64 year old male presents with general malaise, weight loss and night sweats. He also complains of abdominal discomfort in the left upper quadrant. On examination there is evidence of massive splenomegaly. Bloods revealed a low haemoglobin and neutropenia. A blood film reveals leukoerythroblastosis with tear drop poikilocytosis and megakaryocyte fragments. What is the most likely diagnosis?

**1- Myelofibrosis**

2- Acute lymphoblastic leukaemia

3- Myelodysplasia

4- Chronic myeloid leukaemia

5- Non Hodgkins Lymphoma

Q1090. Hereditary nonpolyposis colorectal cancer leads to an increased risk of colorectal carcinoma. Which other cancer are patients particularly at risk of?

1- Gastric cancer

2- Ovarian cancer

3- Prostatic cancer

**4- Endometrial cancer**

5- Hepatocellular cancer

Q1091. Which of the following is an indication for the use of irradiated blood products?

1- Myeloma on no treatment

2- Splenectomy

3- Emergency O negative blood

**4- Hodgkins Lymphoma undergoing treatment**

5- Previous multiple transfusion

Q1092. A 36 year old female has recently underwent a bone marrow transplant for acute myeloid leukaemia. She requires a blood transfusion. The blood is crossmatched. Which of the following must you also ensure?

**1- CMV negative and blood irradiated**

2- Hepatitis B negative

3- HIV

4- CMV negative, no requirement for irradiation

5- Irradiated blood

Q1093. What is the purpose of irradiating blood products?

1- Inactivation of host lymphocytes

**2- Inactivation of residual donor lymphocytes**

3- Reduce bacterial contamination

4- Depletion of number of donor lymphocytes

5- Apoptose CMV virus

Q1094. A 68 year old female with CLL presents with tiredness and shortness of breath on exertion which has been worsening over the last month. Her bloods reveal a haemoglobin of 7.0 g/dL, low normal platelets, elevated white cell count and an elevated bilirubin although her other LFTs are normal. Which investigation will provide the likely cause of the anaemia?

**1- Direct antiglobulin test**

2- Elevated LDH

3- Bone marrow biopsy

4- Haemosiderinuria

5- Nil required as secondary to disease

Q1095. A 25 year old female has been commenced on nitrofurantoin for a urinary tract infection. She notices that her urine has become dark and her sclera are yellow. Her bloods reveal evidence of a haemolytic anaemia, with a low haemoglobin, elevated reticulocyte count, LDH and bilirubin. A blood film reveal Heinz bodies and bite cells. What is the most likely diagnosis?

1- Pyruvate kinase deficiency

2- Hereditary Spherocytosis

3- Drug induced haemolytic anaemia

**4- Glucose 6 phosphate dehydrogenase deficiency**

5- Paroxysmal nocturnal haemoglobinuria

Q1096. A 60 year old male presents with weight loss, night sweats, fever and fatigue. He has had a change in his bowel habit. On examination he has evidence of inguinal and axillary lymphadenopathy and the patient states these have increased in size quickly. There is also hepatosplenomegaly and a separate abdominal mass. What is the most likely diagnosis?

1- Low grade non Hodgkins lymphoma

2- Tuberculosis

3- Hodgkins Lymphoma

**4- High grade non Hodgkins lymphoma**

5- Colorectal Cancer

Q1097. A patient is found to have a pancytopenia. A bone marrow aspirate and trephine show a hypocellular bone marrow with no evidence of increased reticulin and normal haemopoetic progenitors. Given the most likely diagnosis, which of the following options is not useful for the management?

1- Allogeneic bone marrow transplantation

2- Antithymocyte globulin

3- Transfusions

4- Ciclosporin

**5- High dose cyclophosphamide without bone marrow transplant**

Q1098. A 55 year old female presents with shortness of breath on exertion and fatigue. She is found to have a pancytopenia on bloods with an elevated MCV. She is found to have antibodies for intrinsic factor and parietal cells. What is the most likely diagnosis?

1- Leukaemia

**2- Pernicious anaemia**

3- Aplastic leukaemia

4- Iron deficiency

5- Folate deficiency

Q1099. A 24 year old male with sickle cell anaemia presents with severe pleuritic chest pain. He is short of breath and has a cough. A CXR reveals increased multilobular opacities. What is the most likely diagnosis?

1- Myocardial Ischaemia

2- Pneumonia

**3- Acute Chest Syndrome**

4- Pulmonary Embolus

5- Myocarditis

Q1100. A patient is diagnosed with pre eclampsia. She is currently on dalteparin for a DVT. It is noted however that she is bleeding from her venflon sites and nose. You notice purpura on her arms and legs. Bloods reveal a low platelet count, prolonged PT and APTT, low fibrinogen and largely elevated D dimers. What is the most likely diagnosis?

1- Excessive dalteparin treatment

**2- Disseminated intravascular coagulation**

3- HELLP syndrome

4- von Willebrands disease

5- Idiopathic thrombocytopenic purpura

Q1101. A patient with von Willebrands disease is requiring surgery. How should you manage this patient?

1- Fresh frozen plasma

2- Cryoprecipitate

3- Platelet transfusion

4- Steroids

**5- DDAVP and tranexamic acid**

Q1102. A patient with ALL receives an allogeneic bone marrow transplant. He then about one week later develops fever with an erythrodermic rash with desquamation. He also appears jaundice and is suffering from severe watery diarrhoea. What is the most likely diagnosis?

1- Anaphylaxis

2- Hepatitis

3- Gastroenteritis

**4- Graft versus host disease**

5- Erythema multiforme

Q1103. A patient on warfarin is found to have an INR of 5.4. He is not on any other medication and is asymptomatic with no signs of bleeding. His warfarin was withheld. The following day his INR was 6.2. There is no signs of bleeding. How do you manage this?

1- Berliplex

2- Prothrombin complex concentrate

**3- Withhold warfarin**

4- 10mg of vitamin K

5- 1 mg of vitamin K

Q1104. A patient with chronic lymphocytic leukaemia presents for check up. Over the last few months she has noticed lumps in her neck and axilla which have grown rapidly. She has lost weight and complains of being feverish. What is the most likely diagnosis?

1- CMV infection

2- EBV infection

**3- Poorly differentiated high grade lymphoma**

4- Autoimmune haemolytic anaemia

5- Progression of CLL

Q1105. An 18 month old baby presents with an acutely swollen knee. He has just begun walking but his mother denies any trauma. On examination there is a large effusion of the left knee with restricted painful movement. He is apyrexial and otherwise well. Bloods reveal a prolonged APTT. What is the most likely diagnosis?

**1- Haemophilia A**

2- Non accidental injury

3- Septic arthritis

4- Von Willebrands disease

5- Haemophilia B

Q1106. A 42 year old female who is currently on warfarin for a DVT presents with acute shortness of breath, haemoptysis and pleuritic chest pain. A CTPA confirms a pulmonary embolus and her INR has been therapeutic. What should be done next?

1- Maintain current warfarin therapy

2- Maintain INR and continue warfarin for an extra 3 months

**3- Increase target INR to 3.5 and consider life long warfarin**

4- Maintain target INR and consider life long warfarin

5- Increase target INR and continue warfarin for an extra 6 months

Q1107. A 28 year old female is found to have a DVT. She is a non smoker and is not on the oral contraceptive and is otherwise fit and well. On further questioning she has had a miscarrriage previously. On examination there is a mottled, purplish discolouration on her lower limbs. Bloods revealed a prolonged APTT and thrombocytopenia. Her Hb was normal. Which of the following is the most likely diagnosis?

1- Disseminated Intravascular Coagulation

2- Thrombotic thrombocytopenic purpura

3- Secondary antiphospholipid syndrome

4- Factor V Leiden

**5- Primary antiphospholipid syndrome**

Q1108. A 68 year old male is found to have raised IgG levels. An IgG paraprotein band (2.5g/ L) is found on serum protein electrophoresis. He is otherwise well and asymptomatic. His Us and Es and calcium levels are normal. There is no evidence of Bence Jones protein in the urine. A recent X-ray of his lumbar spine shows no evidence of osteolytic lesions. What is the most likely diagnosis?

1- Waldenstrom's Macroglobulinaemia

2- Chronic Infection

3- Multiple Myeloma

**4- Monoclonal Gammopathy of Undetermined Significance**

5- Non Hodgkin's Lymphoma

Q1109. A patient who has recently underwent chemotherapy for Acute Myeloid Leukaemia requires a platelet transfusion. Which of the following is required?

1- HLA matched platelets

**2- Gamma Irradiation**

3- Washed platelets

4- Apheresis derived platelets

5- Nil special required

Q1110. A patient with AML is refractory to platelet transfusions. Which of the following is required?

1- Washed platelets

2- CMV negative

3- Gamma irradiated platelets

**4- HLA matched apheresis derived platelets**

5- IV Immunoglobulin

Q1111. A 62 year old male has recently had radiotherapy . He is complaining of shortness of breath on exertion, fatigue, headache and palpitations. He is also complaining of nausea. Bloods reveal a pancytopenia. Which of the following is he most likely cause?

1- Graft versus host disease

2- Progression of disease

3- Vitamin B12 deficiency

**4- Radiotherapy**

5- HIV

Q1112. A 28 year old female who is 32 weeks pregnant presents with headache, nausea and vomiting and upper abdominal pain. On examination she appears jaundice and there is tenderness in the right upper quadrant. She is hypertensive at 140/80 mmHg. Bloods reveal a macrocytic anaemia, thrombocytopenia, deranged LFTs and elevated LDH. There is a reticulocytosis and red cell fragmentation on blood film. What is the most likely diagnosis?

**1- HELLP syndrome**

2- Acute fatty liver of pregnancy

3- Pre-eclampsia

4- Thrombotic thrombocytopenic pupura

5- Eclampsia

Q1113. A 42 year old male is ten days post chemotherapy. He presents generally unwell and is pyrexial. On examination he is tachycardic but there is nil of note on cardiovascular, respiratory or abdominal examination. Bloods reveal an elevated CRP, WCC of 3.2 with neutrophils of 0.3. Which treatment should be commenced?

**1- Piperacillin/tazobactam and Gentamicin**

2- Ceftriaxone and Metronidazole

3- Vancomycin and Gentamicin

4- Ceftriaxone

5- Meropenem

Q1114. A 64 year old female has just be diagnosed with Temporal Arteritis. Her recent bloods show a raised WCC. She states she has been feeling well. Which of the following is the most likely cause?

1- UTI

2- CLL

**3- Steroid use**

4- Due to the Temporal Arteritis

5- Polymyalgia Rheumatica

Q1115. Which of the following chemotherapy agents does not cause peripheral neuropathy?

1- Thalidomide

**2- Bleomycin**

3- Cisplatin

4- Vincristine

5- Docetaxel

Q1116. What is the mechanism of thrombophilia due to factor V Leiden mutation?

1- Increased sensitivity to activated protein C mediated inactivation

2- Resistant to antithrombin III inactivation

3- Increased sensitivity to activated protein S mediated inactivation

**4- Resistant to activated protein C mediated inactivation**

5- Resistant to activated protein S mediated inactivation

Q1117. A 68 year old gentleman is being investigated for evidence of an M paraprotein band, raised ESR and weight loss. He suddenly develops visual disturbance, renal failure and headache. How should this patient be managed?

1- Chlorambucil

2- Urgent CT head

3- Prednisolone

4- Rituximab

**5- Urgent plasmapheresis**

Q1118. A patient with acute myeloid leukaemia presents with headaches. She has never suffered from headaches before. She has now noticed a left sided facial drop and now is drowsy. Out of the following what is a likely cause?

1- Meningeal infiltration

2- Radiotherapy

**3- Hyperleukocytosis**

4- Anaemia

5- Migraine

Q1119. A patient with chronic lymphocytic leukaemia presents for check up. Over the last few months she has noticed lumps in her neck and axilla which have grown rapidly. She has lost weight and complains of being feverish. Which investigation will confirm the most likely diagnosis?

1- LDH level

**2- Lymph node biopsy**

3- Blood cultures

4- Bone marrow biopsy

5- Coombs test

Q1120. A 32 year old gentleman is found to have anaemia. Platelets and white cells are normal. He is asymptomatic. Further investigation reveals an elevated iron, transferrin saturation and ferritin. A blood film reveals both normocytic and microcytic cells. A bone marrow aspirate is performed and on prussian blue stain there is evidence of erythroblasts with iron deposits around the nucleus. What is the most likely diagnosis?

1- Myelodysplasia

2- Iron deficiency anaemia

3- Anemia of chronic disease

4- Haemochromatosis

**5- Sideroblastic anaemia**

Q1121. Which of the following can be utilised to improve neutrophil count in oncology patients?

1- M CSF

2- IL 5

3- Erythropoietin

**4- G CSF**

5- TNF alpha

Q1122. What is true regarding primary polycythaemia?

**1- Low EPO levels**

2- H2 antagonists are not useful for the itch

3- Aspirin is not useful in reduction of thrombotic events

4- No risk of transformation to AML

5- Only an increased in red cell production seen

Q1123. In a patient with a HB of 19 g/dL and a haematocrit of 0.45, what test should be ordered to confirm this is a true polycythaemia?

1- Bone Marrow Biopsy

2- Platelet count

3- EPO level

**4- Red cell volume**

5- Urea and Electrolytes

Q1124. A 48 year old male of African descent presents with a long history of a microcytic anaemia which has not responded to iron supplementation. The patient is otherwise well and has no bleeding history. His bloods reveal a microcytic anaemia, however haematinics are normal. A blood film reveals hypochromia and target cells. What is the most likely diagnosis?

**1- Alpha thalassaemia minor**

2- Haemolytic Anaemia

3- Iron Deficiency Anaemia

4- Beta thalassaemia

5- Sickle Cell Trait

Q1125. Which of the following is not a cause of microangiopathic haemolytic anaemia?

**1- Cardiac haemolysis**

2- Eclampsia

3- Disseminated Intravascular Coagulation

4- Thrombotic Thrombocytopenic Purpura

5- Haemolytic Uraemic Syndrome

Q1126. Which of the following is not a well known side effect of cyclophosphamide?

1- Hair loss

2- Thrombocytopenia

3- Diarrhoea

**4- Hirsutism**

5- Haemorrhagic cystitis

Q1127. A patient is brought to A and E very unwell from what is a suspected meningococcal septicaemia. He begins to bleed from his venflon site and nose. You notice purpura and petechiae on his limbs. Blood tests reveal a prolonged PT and APTT and a low fibrinogen level. Platelets are sightly low. How would you manage this patients bleeding?

1- Platelet transfusion

2- Nil required

3- Low molecular weight heparin

**4- Fresh frozen plasma transfusion**

5- Blood transfusion

Q1128. A 28 year old female presents with fatigue, shortness of breath on exertion and palpitations. She also gives a history of abdominal bloating and diarrhoea which is sometimes difficult to flush away. Bloods reveal a macrocytic anaemia. What is the most likely diagnosis?

1- Vitamin B12 deficiency

**2- Folate Deficiency**

3- Iron deficiency

4- Alcohol excess

5- Hypothyroidism

Q1129. A 38 year old male of south eastern Asian descent is found to have a microcytic anaemia. He is asymptomatic. Ferritin and iron studies are normal however a blood film reveals target cells. Which investigation would confirm the diagnosis?

1- Sickle cell test

2- Ultrasound of the abdomen

3- Colonoscopy

4- B12 and folate levels

**5- Haemoglobin electrophoresis**

Q1130. What is not true regarding Aldesleukin therapy?

1- Interleukin 2 analogue

**2- Interleukin 6 analogue**

3- Utilised in renal cell carcinoma

4- Can lead to hypotension

5- Given as slow IV infusion

Q1131. A 54 year old gentleman presents with pruritus. He is also having intermittent headaches and dizziness. On examination the patient has a ruddy complexion and splenomegaly. He is hypertensive. Bloods reveal a raised haemoglobin, increased packed cell volume and mildly elevated platelets and white cells. What is the most likely diagnosis?

1- Thrombocytosis

2- Leukaemia

**3- Polycythaemia rubra vera**

4- Non Hodgkins lymphoma

5- Myelodysplasia

Q1132. A 28 year old female has had three miscarriages and a DVT. Bloods reveal an anticardiolipin antibody and lupus anticoagulant. What is the most likely diagnosis?

1- Antithrombin III deficiency

**2- Antiphospholipid syndrome**

3- Oral contraceptive use

4- Rheumatoid arthritis

5- Factor V Leiden

Q1133. Which of the following is associated with osteosclerotic bony metastases?

1- Colorectal carcinoma

**2- Prostate Cancer**

3- Bronchial Carcinoma

4- Breast Carcinoma

5- Osteosarcoma

Q1134. What organism is most likely to lead to an aplastic crisis in Sickle cell disease?

**1- Parvovirus B19**

2- Hepatitis B

3- Streptococcus pneumoniae

4- Epstein Barr virus

5- Adenovirus

Q1135. Anastrozole can be utilised in hormone responsive metastatic breast cancer post operatively. What is its mechanism of action?

**1- Aromatase inhibitor thus blocks peripheral conversion of androgens to oestrogens**

2- Converts oestrogen to testosterone

3- Aromatase inhibitor and prevents ovarian production of oestrogen

4- Oestrogen receptor antagonist

5- Aromatase inhibitor and prevents ovarian production of progesterone

Q1136. Which of the following is not associated with a poor prognosis in breast cancer?

1- Metaplastic breast cancer

2- Lymph node involvement

3- Young age

**4- Oestrogen and progesterone receptor positive**

5- Oestrogen and progesterone receptor negative

Q1137. A 72 year old gentleman presents with a 6 month history of epigastric pain, early satiety and weight loss. He has also noticed that the whites of eye appear yellow. Tumour markers reveal an elevated CA 19-9. What is the most likely diagnosis?

1- Gastric Cancer

2- Hepatic metastases

3- Gallstones

**4- Pancreatic Cancer**

5- Duodenal Ulcer

Q1138. A 16 year old girl has noticed she has developed several bruises on minimal trauma. She is normally fit and well. On examination there is evidence of purpura and petechiae. Bloods reveal platelets of 30. All other bloods are normal. What is the most likely diagnosis?

1- Leukaemia

2- von Willebrands disease

3- Henoch Schönlein purpura

**4- Idiopathic thrombocytopenic purpura**

5- Non accidental injury

Q1139. A 52 year old male is undergoing chemotherapy for leukaemia. He has an indwelling central venous catheter. He becomes unwell and pyrexial and you suspect his line has become infected. What organism is the most likely causative agent?

1- HACEK group

2- Streptococcus pneumoniae

**3- Staphylococcus epidermidis**

4- Klebsiella

5- Methicillin resistant staphylococcus aureus

Q1140. A patient is undergoing chemotherapy for Hodgkins lymphoma. He develops increasing shortness of breath on exertion and a cough. Which of the following drugs is most likely to cause these side effects?

1- Cyclophosphamide

2- Doxorubicin

3- Vincristine

4- Prednisolone

**5- Bleomycin**

Q1141. Which of the following is not a clear risk factor for bladder cancer?

1- Aromatic amines

**2- Hair dye**

3- Cyclophosphamide

4- Smoking

5- Arsenic

Q1142. Which of the following inherited genetic mutations is not associated with an increased risk of breast cancer development?

1- PTEN

2- CDH 1

3- BRCA 1

4- ATM

**5- VHL**

Q1143. A 35 year old man with a HIV for approximately 10 years presents after noticing lesions on his neck and lower legs. These are papular brownish lesions. What is the most likely diagnosis?

1- Bacillary Angiomatosis

2- Pityriasis Versicolor

3- Necrobiosis Lipoidica

**4- Kaposis sarcoma**

5- Bowens Disease

Q1144. A 54 year old female presents with weight loss, cough and haemoptysis. She is a heavy smoker. Bloods reveal hypercalcaemia. What is the most likely diagnosis?

1- Carcinoid

2- Large Cell lung cancer

**3- Squamous Cell Lung cancer**

4- Adenocarcinoma

5- Small cell lung cancer

Q1145. A 54 year old female presents with weight loss, cough and haemoptysis. She is a heavy smoker. Bloods reveal hyponatraemia. What is the most likely diagnosis?

**1- Small cell lung cancer**

2- Adenocarcinoma

3- Carcinoid

4- Large Cell lung cancer

5- Squamous Cell Lung cancer

Q1146. How would you manage a patient with a calcium of 3.1 mmol/L, thought to be secondary to bony metastases?

**1- IV fluids and IV bisphosphonate**

2- IV steroids

3- IV fluids and IV furosemide

4- Radiotherapy

5- IV fluids

Q1147. In Hodgkins lymphoma, which of the following types is associated with a poor prognosis?

1- Nodular sclerosis

**2- Lymphocyte depleted**

3- Mixed cellularity

4- None

5- Lymphocyte predominant

Q1148. Smoking is least associated with which of the following lung cancers?

1- Large cell lung cancer

2- Squamous cell carcinoma

**3- Adenocarcinoma**

4- Small cell lung cancer

5- None

Q1149. What is false in regards to the management of thyroid malignancy?

**1- Thyroglobulin plays no role in the monitoring of treatment and recurrence**

2- Surgical excision should be performed in the majority of patients

3- Radioiodine therapy should follow surgical excision

4- Anaplastic thyroid cancer has the worst prognosis

5- Radiotherapy is occasionally used

Q1150. A 64 year old male presents with general malaise, weight loss and night sweats. He also complains of abdominal discomfort in the left upper quadrant. On examination there is evidence of massive splenomegaly. Bloods revealed a low haemoglobin and neutropenia. A blood film reveals leukoerythroblastosis with tear drop poikilocytosis and megakaryocyte fragments. What is the most likely diagnosis?

1- Chronic myeloid leukaemia

2- Acute lymphocytic leukaemia

3- Non Hodgkins lymphoma

4- Myelodysplasia

**5- Myelofibrosis**

Q1151. How is Haemophilia B inherited?

1- Autosomal recessive

**2- X linked recessive**

3- Sporadic

4- X linked dominant

5- Autosomal dominant

Q1152. An 80 year old gentleman is found incidentally on routine bloods to have a low haemoglobin and markedly raised white cell count. His platelets were also elevated. He has noticed he has become increasingly tired over the last few months but denies any other symptoms. A peripheral blood film reveals increased granulocytes, basophils, eosinophils and evidence of myelocytes, promyelocytes and myeloblasts. What is the most likely diagnosis?

1- Acute myeloid leukaemia

**2- Chronic myeloid leukaemia**

3- Chronic lymphoblastic leukaemia

4- Myelofibrosis

5- Acute lymphoblastic leukaemia

Q1153. Which organism is screened for in blood products before given to an immunocompromised patient?

1- Epstein Barr Virus

2- Creutzfeldt Jakob disease

**3- Cytomegalovirus**

4- Human T cell leukaemia virus 1

5- Hepatitis C virus

Q1154. What would you expect to see on the blood film of a patient with infiltration of the bone marrow?

1- Thrombocytopenia

2- Thrombocytosis

3- Fragmented red cells

**4- Leukoerythroblastic changes**

5- Myeloblasts

Q1155. Which vitamin deficiency would you expect in a patient with bruising?

1- Vitamin B12

2- Vitamin D

**3- Vitamin K**

4- Riboflavin

5- Vitamin E

Q1156. A 64 year old male is being treated for an acutely ischaemic limb with IV heparin. Approximately 7 days later bloods reveal a low platelet count having been previously at the high end of the normal range. What is the most likely diagnosis?

**1- Heparin Induced thrombocytopenia type II**

2- Heparin induced thrombocytopenia type I

3- disseminated intravascular coagulation

4- Immune thrombocytopenic purpura

5- Thrombotic thrombocytopenic purpura

Q1157. A 26 year old female presents to her GP after noticing her urine has been a dark brown colour. She admits to feeling increasingly tired over the last few months and has noticed herself bruising easily. Bloods reveal a low haemoglobin at 6.6 g/dL which is macrocytic. She also has low platelets and evidence of increased LDH, low haptoglobin and increased reticulocyte count. A dipstick reveals haematuria however microscopy does not reveal in red blood cells. How would you manage this patients anaemia?

1- Vitamin B12

**2- Leukocyte depleted blood transfusion**

3- Folate supplementation

4- Bone marrow transplant

5- Prednisolone

Q1158. Which of the following factors most significantly contributes to iron deficiency anaemia in pre menopausal woman?

1- NSAID use

2- Malignancy

**3- Menorrhagia**

4- Vegan diet

5- Gastritis

Q1159. A 25 year old female has been commenced on nitrofurantoin. She notices that her urine has become dark and her sclera are yellow. This has happened previously when she eaten broad beans. What is the most likely diagnosis?

1- Drug induced haemolytic anaemia

2- Paroxysmal nocturnal haemoglobinuria

3- Hereditary Spherocytosis

4- Pyruvate kinase deficiency

**5- Glucose 6 phosphate dehydrogenase deficiency**

Q1160. Which of the following is utilised in monitoring venesection therapy for haemochromatosis?

1- Liver transaminases

2- Transferrin Saturation

3- Iron levels

4- Total Iron binding capacity

**5- Ferritin**

Q1161. In sickle cell anaemia, which of the following organisms is not commonly associated with infection in these patients?

**1- Staphylococcus aureus**

2- Chlamydia trachomatis

3- Neisseria meningitis

4- Streptococcus pneumoniae

5- Haemophilus influenzae

Q1162. A 72 year old male is found on routine bloods to have a white cell count of 32

1- Chronic Myeloid Leukaemia

2- Acute myeloid leukaemia

**3- Chronic lymphocytic leukaemia**

4- Viral Infection

5- Acute lymphoblastic leukaemia

Q1163. Which of the following does not inhibit iron absorption?

1- Phytates

**2- Vitamin C**

3- Tannins

4- Antacids

5- Calcium

Q1164. A 12 year old boy presents unwell. He has severe bone pain which is wakening him at night. He feels very tired and is short of breath on minimal exertion. He has been suffering from nosebleeds and has noticed himself bruising easily. On examination there is lymphadenopathy. Bloods reveal a pancytopenia. What is the most likely diagnosis?

1- Epstein Barr virus

**2- Acute lymphoblastic leukaemia**

3- Chronic lymphoblastic leukaemia

4- Aplastic anaemia

5- Acute myeloid leukaemia

Q1165. Which of the following deficiencies leads to easily bruising and bleeding?

1- Iron deficiency

**2- Vitamin K deficiency**

3- Vitamin E deficiency

4- Vitamin B 12 deficiency

5- Folate deficiency

Q1166. A patient presents with clinical features and blood investigations suggestive of a haemolytic anaemia. A blood film shows spherocytes and reticulocytes. Which of the following is not useful in the management?

1- Splenectomy

2- Steroids

3- Blood transfusions

**4- Radiotherapy**

5- Folate supplementation

Q1167. In a vegan, which deficiency is most likely to lead to a macrocytic anaemia?

1- Iron deficiency

2- Thyroid deficiency

3- Folate deficiency

4- Calcium deficiency

**5- Vitamin B12 deficiency**

Q1168. What is the most likely complication of aplastic anaemia?

1- Thromboses

2- Blood transfusion related complications

**3- Infections**

4- Splenic infarct

5- GI haemorrhage

Q1169. In aplastic anaemia what would you expect to see on a bone marrow biopsy?

1- Hypercellular bone marrow

2- Hypocellular bone marrow with numerous blast cells

**3- Hypocellular bone marrow with fatty infiltration**

4- Hypercellular bone marrow with fatty infiltration

5- Fibrous Infiltration

Q1170. A 54 year old gentleman presents with pruritus. He is also having intermittent headaches and dizziness. On examination the patient has a ruddy complexion and splenomegaly. He is hypertensive. Bloods reveal a raised haemoglobin, increased packed cell volume and mildly elevated platelets and white cells. Given the most likely diagnosis, what is the most common complication?

**1- Thrombosis**

2- Erythromelalgia

3- Bleeding

4- Renal failure

5- Cardiac failure

Q1171. A 60 year old female is suffering from back pain which has woken her from her sleep for the last few months. An xray reveals vertebral collapse and lytic lesions. She has also noticed feeling thirsty and has been more constipated. Bloods reveal a normochromic normocytic anaemia, thrombocytopenia, leucopenia, renal impairment and hypercalcaemia. How should you manage this patient?

1- Analgesia

2- Bisphosphonates

**3- Chemotherapy and autologous stem cell transplant**

4- Allogeneic stem cell transplant

5- Radiotherapy

Q1172. Which of the following is not a long term risk of radiotherapy?

1- Infertility

2- Lymphoedema

3- Increased risk of subsequent malignancy

4- Sensorineural hearing loss

**5- Mucositis**

Q1173. What is the function of telomerase?

1- Protein production

2- Transcribes RNA

3- Proliferation

4- Apoptosis

**5- Immortalisation**

Q1174. Which of the following diagnoses is caused by t (9;22) chromosome translocation?

1- Hairy cell leukaemia

2- Chronic lymphocytic leukaemia

**3- Chronic myeloid leukaemia**

4- Acute promyelocytic leukaemia

5- Mantle cell lymphoma

Q1175. In a patient with long standing renal failure, what is the most likely cause of anaemia?

1- Folate deficiency

2- Autoimmune haemolytic anaemia

3- Vitamin B12 deficiency

4- Iron deficiency

**5- Erythropoietin deficiency**

Q1176. In addition to tissue typing of HLA A,B and DR, what other HLA typing is useful for allogeneic bone marrow transplantation?

**1- HLA C**

2- HLA DPB1

3- HLA DQA1

4- HLA DPA1

5- Nil else required

Q1177. Which of the following is associated with a good prognosis in acute myeloid leukaemia?

1- AML following myelodysplasia

2- Normal cytogenetics

3- Age >60

4- AML following chemotherapy

**5- t(15;17)**

Q1178. Which of the following causes of thrombophilia leads to a reduced sensitivity to activated protein C inactivation?

**1- Factor V Leiden**

2- Antiphospholipid syndrome

3- Prothrombin mutation

4- Protein C deficiency

5- Antithrombin mutation

Q1179. Which immunoglobulin is normally found in type 1 cryoglobulinaemia?

1- IgG

2- IgA

3- IgD

**4- IgM**

5- Rheumatoid factor

# Chapter 7 Nephrology

Q1180. A 14 year old boy is admitted following an epileptic seizure. This is his first seizure and on examination you note learning difficulties, a bumpy rash on his nose and cheeks and a blood pressure of 135/82 mmHg. His blood results are normal but a urine dipstick reveals trace levels of blood and an ultrasound shows cysts in both kidneys. What is the diagnosis?

**1- Tuberous sclerosis**

2- Glioblastoma multiforme

3- MEN1

4- Neurofibromatosis

5- Polycystic kidney disease

Q1181. A 3 year old is brought to the GP as she is thought to be drinking and urinating excessively by her parents. She has recently began wetting the bed again after being potty trained last year. She appears very small for her age. Bloods reveal renal impairment, urinalysis normal and an ultrasound is organised. On ultrasound the kidneys appear small and there is evidence of multiple small medullary cysts. What is the most likely diagnosis?

1- Medullary sponge kidney

**2- Nephronophthisis**

3- Polycystic kidney disease

4- Chronic pyelonephritis

5- Posterior urethral valve

Q1182. A 7 year old girl is suffering from extreme thirst and increase urination. She appears to be dehydrated. She appears of short stature. She is found to have a hypokalaemic, hypochloraemic alkalosis. A 24 hour urine collection reveals hypercalciuria. What is the most likely diagnosis?

1- Type 4 renal tubular acidosis

2- Type 1 renal tubular acidosis

3- Gitelmans syndrome

4- Liddles syndrome

**5- Bartters syndrome**

Q1183. Which of the following is not a cause of membranous nephropathy?

1- Systemic lupus erythematous

**2- Alports syndrome**

3- Diabetes

4- Gold

5- Lymphoma

Q1184. A 24 year old is found to have chronic renal failure. There is a history of numerous UTIs as a child. On ultrasound there is evidence of renal scarring. She is hypertensive. What is the most likely diagnosis?

**1- Reflux Nephropathy**

2- Posterior urethral valve

3- Polycystic kidney disease

4- Hypertensive renal disease

5- Pyelonephritis

Q1185. A 35 year old male has had loin pain for several months however has never sought medical help. He now presents with severe loin pain and haemturia. He is found to be hypertensive and his bloods reveal renal impairment. He states his father and grandfather had problems with their kidneys and his father died suddenly from "a bleed in the brain". What is the most likely diagnosis?

1- Renal stones

**2- Polycystic Kidney Disease**

3- Urinary tract infection

4- Medullary sponge kidney

5- Tuberous sclerosis

Q1186. A 28 year old female presents to her GP with joint pain , fever, a butterfly rash and fatigue. She has marked peripheral oedema. She is found to be hypertensive, in acute renal failure, low albumin levels and proteinuria. A renal biopsy is performed and reveals focal glomerulonephritis with subendothelial and mesangial immune deposits. What is the most likely diagnosis?

1- Membranous glomeurlonephritis

2- Lupus nephritis class II

**3- Lupus nephritis Class III**

4- Lupus nephritis class I

5- IgA nephropathy

Q1187. A 12 year old boy who has recently been diagnosed with a sensorineural hearing loss presents with haematuria. He has recently had a cold. He is wearing glasses and his mother states the optician said he an abnormality of the lens of his eye. From the following which is the most likely diagnosis?

**1- Alport's syndrome**

2- Minimal change disease

3- Bartter's Syndrome

4- Bergers syndrome

5- Haemolytic Uraemic Syndrome

Q1188. Which of the following is due to a defect in type IV collagen in the glomerular basement membrane?

1- Bergers Syndrome

**2- Alport's Syndrome**

3- Bartters syndrome

4- Goodpastures syndrome

5- Liddles syndrome

Q1189. A 72 year old gentleman with type 2 diabetes mellitus has presented with pyrexia, flank pain and haematuria. Bloods reveal an acute deterioration of his renal function. Urine dipstick reveals blood, protein and low urine specific gravity. An ultrasound suggests hydronephrosis. A CT scan is performed and reveals evidence of renal pelvic filling defects, ring shadows and irregular papillae. What is the most likely diagnosis?

1- Glomerulonephritis

2- Pyelonephritis

3- Hydronephrosis

**4- Papillary necrosis**

5- Renal stones

Q1190. A 45 year old female is admitted with cellulitus requiring IV antibiotics. She is commenced on IV benzylpenicillin and IV flucloxacillin. She is commenced on Diclofenac for pain. After 3 days she she develops pyrexia, arthralgia, maculopapular rash, haematuria and oliguria. Bloods reveal acute renal failure and eosinophilia. A renal biopsy reveals interstitial cellular infiltrate with eosinophils present and variable tubular necrosis. What is the most likely diagnosis?

**1- Penicillin induced acute tubulointerstitial nephritis**

2- Chronic tubulointerstitial nephritis

3- Anaphylaxis

4- NSAID induced acute tubulointerstitial nephritis

5- Glomerulonephritis

Q1191. A 38 year old male presents with fatigue and weight loss. He has a long history of recurrent sinusitis, epistaxis and dry cough. He is found to have haematuria on urinalysis. He is cANCA positive. What is the most likely diagnosis?

1- Haemolytic Uraemic syndrome

2- Churg Strauss syndrome

3- Goodpastures syndrome

4- Malignancy

**5- Wegeners granulomatosis**

Q1192. A 70 year old male with previous radiation therapy for colorectal carcinoma presents with non specific symptoms of weight loss, malaise, nausea and dull abdominal and back pain. He has also noticed increased frequency and hesitancy of urination. Bloods reveal a normochromic anaemia, increased ESR and renal failure.. His renal failure does not improve with fluids and an ultrasound is organised. This reveals a retroperitoneal mass. What is the most likely diagnosis?

1- Aortic aneurysm

2- Recurrence of colorectal carcinoma

3- Amyloidosis

**4- Retroperitoneal fibrosis**

5- Pancreatic carcinoma

Q1193. A 70 year old male with previous radiation therapy for colorectal carcinoma presents with non specific symptoms of weight loss, malaise, nausea and dull abdominal and back pain. He has also noticed increased frequency and hesitancy of urination. Bloods reveal a normochromic anaemia, increased ESR and renal failure.. His renal failure does not improve with fluids and an ultrasound is organised. This reveals a retroperitoneal mass. Given the likely diagnosis, which of the following drugs may be the underlying cause?

**1- Methysergide**

2- Azathioprine

3- Methotrexate

4- Ramipril

5- Prednisolone

Q1194. In a patient with renal artery stenosis what is the imaging modality of choice?

1- CT angiography

2- CT abdomen

**3- Magnetic resonance angiography**

4- Radionuclide scans

5- Ultrasound scan

Q1195. A patient is found to have cystine renal stones. What is the most likely cause of this?

1- Cystinosis

2- Furosemide abuse

3- Calciuria

**4- Cystinuria**

5- Poor water intake

Q1196. In Fanconis syndrome there is a type 2 renal tubular acidosis along with aminoaciduria, glycosuria and phosphaturia. Which of the following is also a presenting feature of fanconis syndrome?

1- Mental retardation

2- Thrombocytopenia

3- Fatigue

4- Anaemia

**5- Osteomalacia**

Q1197. What is the most common acquired cause of Fanconi syndrome in children?

**1- Cystinosis**

2- Galactosaemia

3- Glycogen storage disorders

4- Wilsons disease

5- Gentamicin

Q1198. Which of the following is not a cause of renal glycosuria? Cystinosis Lead poisoning

1- Conn's Syndrome

2- Wilsons disease

**3- Cushings syndrome**

4- Fanconi syndrome

5- Pregnancy

Q1199. In renal osteodystrophy, what would you expect to find?

1- Increased phosphate excretion, increased parathyroid hormone levels and reduced 1,25 OH vitamin D

2- Reduced phosphate excretion, decreased parathyroid hormone levels and reduced 1,25 OH vitamin D

3- Reduced phosphate excretion, decreased parathyroid hormone levels and increased 1,25 OH vitamin D

4- Increased phosphate excretion, decreased parathyroid hormone levels and reduced 1,25 OH vitamin D

**5- Reduced phosphate excretion, increased parathyroid hormone levels and reduced 1,25 OH vitamin D**

Q1200. A patient is admitted with decompensated liver disease and tense ascites. His bloods reveal an acute renal failure. He is not on any nephrotoxic drugs. He had been previously on spironolactone and furosemide for prophylaxis of ascites however these were stopped some months ago. His blood pressure is 130/80 mmHg and his renal failure does not respond to fluids. A urinalysis shows a trace amount of protein but nil else. An ultrasound of the renal tract shows no evidence of obstruction. What is the most likely diagnosis?

1- Previous furosemide use

**2- Hepatorenal syndrome**

3- Sepsis

4- Hypovolaemia

5- Glomerulonephritis

Q1201. A patient is admitted with decompensated liver disease and tense ascites. His bloods reveal an acute renal failure. He is not on any nephrotoxic drugs. He had been previously on spironolactone and furosemide for prophylaxis of ascites however these were stopped some months ago. His blood pressure is 130/80 mmHg and his renal failure does not respond to fluids. A urinalysis shows a trace amount of protein but nil else. An ultrasound of the renal tract shows no evidence of obstruction. Given the most likely diagnosis, what treatment should initiated?

1- Increased rate of IV fluids

2- Albumin

**3- Terlipressin and albumin**

4- Broad spectrum antibiotics

5- Terlipressin

Q1202. For a patient aged 76 with no history of renal disease, cardiac failure or diabetes, with a blood pressure of 128/70, what is his risk of contrast nephropathy?

1- 25%

**2- 7.5%**

3- 1%

4- 60%

5- 14%

Q1203. For a patient aged 76 with a history of diabetes, but no cardiac or renal failure, with a blood pressure of 128/70, what is his risk of contrast nephropathy?

**1- 14%**

2- 1%

3- 25%

4- 60%

5- 7.5%

Q1204. For a patient aged 76 with a history of diabetes and mild renal disease, with a blood pressure of 128/70, what is his risk of contrast nephropathy?

1- 14%

2- 1%

3- 7.5%

4- 60%

**5- 25%**

Q1205. A 55 year old female presents to her GP after noticing blood in her urine. She is asymptomatic otherwise with no abdominal pain or other urinary symptoms. She is a heavy smoker and takes aspirin regularly. Her bloods reveal anaemia and urinalysis reveals haematuria. What is the most likely diagnosis?

1- Nephrolithiasis

2- Renal cell carcinoma

**3- Bladder cancer**

4- Urinary tract infection

5- Aspirin use

Q1206. In developing countries what is the most common pathological type of bladder cancer?

1- Small cell

2- Transitional cell

**3- Squamous cell carcinoma**

4- Leiomyosarcoma

5- Rhabdomyosarcoma

Q1207. A 27 year old female presents to her GP with recurrent UTIs. An intravenous urography is organised and there is evidence of radial linear striations and there is evidence of ectactic collecting ducts. She has no other past medical history of note. What is the most likely diagnosis?

1- Medullary cystic disease

2- Tuberculosis of the kidney

3- Polycystic kidney disease

**4- Medullary sponge kidney**

5- Renal cell carcinoma

Q1208. With which condition is medullary sponge kidney most associated?

1- Distal renal tubular acidosis

**2- Congenital hemihypertrophy**

3- Ehlers Danlos syndrome

4- Marfans syndrome

5- Congenital hepatic fibrosis

Q1209. A patient is found to be in acute renal failure with a potassium of 6.8mmol/L. Her ECG shows tall tented T waves. She is commenced on cardiac monitoring and is given insulin dextrose infusion and salbutamol nebulisers. Which other treatment should be given?

**1- Calcium Gluconate**

2- Further insulin dextrose

3- Sodium bicarbonate

4- Calcium resonium

5- Repeat Potassium

Q1210. What is not true regarding erythropoietin?

**1- No increased risk of thrombosis**

2- Useful in management of anaemia secondary to chronic renal failure

3- Hypertension is a side effect

4- Increased red cell survival and development of precursor cells

5- Produced in renal cortex

Q1211. A 14 year old male, who has had a recent cold, presents with abdominal pain, joint pain and a purpuric rash of his buttocks and legs. He is found to have haematuria and proteinuria. Bloods reveal an eosinophilia, raised IgA and raised ESR. What is the most likely diagnosis?

**1- Henoch Schönlein purpura**

2- Haemolytic uraemic syndrome

3- SLE

4- Idiopathic thrombocytopenic p[purpura.

5- Glomerulonephritis

Q1212. A patient presents with haematuria, loin pain and on examination there is evidence of an abdominal mass on the left side. A CT reveals several masses in the left kidney but no evidence of any distant metastases. Given the most likely diagnosis, what is the treatment of choice?

1- Radiotherapy and/ or chemotherapy

2- Tumour embolisation

3- Interleukin 2 or interferon alpha

4- Sunitinib

**5- Surgical removal with or without radiotherapy and/or chemotherapy**

Q1213. Which of these is not an absolute contraindication to extracorporeal shockwave lithotripsy?

1- Pregnancy

**2- Hypertension**

3- Obstruction distal to stone

4- Coagulopathy

5- Urosepsis

Q1214. Which of the following is associated with posterior urethral valves and is a non reversible cause of the renal failure which can occur?

1- Horseshoe kidney

**2- Renal dysplasia**

3- Pyelonephritis

4- Renal stones

5- Obstructive uropathy

Q1215. Which of the following drugs is useful in the treatment of steroid resistant nephrotic syndrome?

**1- Cyclophosphamide**

2- Ramipril

3- Methotrexate

4- Infliximab

5- Furosemide

Q1216. In idiopathic hypercalciuria, what management should be initiated if there is renal stone disease or bone demineralization?

**1- Dietary modification and thiazide diuretics**

2- Increased fluid intake

3- Dietary modification

4- Lithotripsy alone

5- Cranberry juice

Q1217. A 60 year old male is noted to have macroglossia, hepatomegaly and has waxy papules in the eyelids, neck and groin. He complains of symptoms of carpal tunnel syndrome. He has now developed oedema and is found to have nephrotic syndrome. Given the most likely diagnosis, which stain on biopsy tissue, is most useful in confirming the diagnosis?

**1- Congo red**

2- Gram

3- Methylene blue

4- PAS

5- Alcian blue

Q1218. A 61 year old male presents with severe lower back pain, lethargy , anorexia and peripheral oedema. He is found to be hypercalcaemic and have renal impairment and nephrotic syndrome. A renal biopsy reveals deposits which after staining with congo red appear as apple green birefringence under polarised light. There is is evidence of a paraprotein band on serum electrophoresis. What is the most likely diagnosis?

1- AA amyloidosis secondary to multiple myeloma

2- Primary amyloidosis

3- Nephrotic syndrome

4- MGUS

**5- AL amyloidosis secondary to multiple myeloma**

Q1219. Which of the following drugs does not require dose change in chronic renal failure?

1- Metformin

2- Piperacillin/tazobactam

**3- Rifampicin**

4- Digoxin

5- Fluconazole

Q1220. Spironolactone is an aldosterone antagonist. Where in the kidneys does aldosterone have its effect?

1- Proximal convoluted tubule

2- Thick ascending loop of henle

**3- Distal convoluted tubule**

4- Thin ascending loop of henle

5- Descending loop of henle

Q1221. A patient presents with acute renal failure secondary to rhabdomyolysis. Which other biochemical abnormalities may be seen?

1- Hypokalaemia and metabolic alkalosis

**2- Hyperkalaemia and metabolic acidosis**

3- Hypokalaemia and metabolic acidosis

4- Hypernatraemia

5- Hyperkalaemia and metabolic alkalosis

Q1222. In infancy what is not a common factor contributing to the development of recurrent UTIs?

1- Constipation

2- Neuropathic bladder

3- Posterior urethral valves

**4- Renal stones**

5- Vesicoureteric reflux

Q1223. A 14 year old girl is suffering from thirst and increased urination. She is found to have a hypokalaemic, hypochloraemic alkalosis and hypomagnesaemia. A 24 hour urine collection reveals hypocalciuria and an ECG QT prolongation. What is the most likely diagnosis?

1- Bartters syndrome

**2- Gitelmans syndrome**

3- Liddles syndrome

4- Type 4 renal tubular acidosis

5- Type 1 renal tubular acidosis

Q1224. Which of the following suggests acute tubular necrosis as opposed to pre renal renal failure?

1- Urine osmolality >500 mOsm/kg and urine sodium <20 mmol/L

**2- Urine osmolality <350 mOsm/kg and urine sodium >40 mmol/L**

3- Hypotension

4- Urine osmolality <350 mOsm/kg and urine sodium <40 mmol/L

5- Urine osmolality >350 mOsm/kg and urine sodium >40 mmol/L

Q1225. Which of the following is not a complication of acute tubular necrosis?

1- Hyperkalaemia

**2- Metabolic alkalosis**

3- Infection

4- GI haemorrhage

5- Metabolic acidosis

Q1226. Which of the following is a relative contraindication to renal transplantation?

1- Severe psychiatric disease

2- Disseminated cancer

3- Persistent substance abuse

**4- Chronic liver disease**

5- Severe mental retardation

Q1227. Which investigation should be organised for the diagnosis of vesicoureteric reflux?

1- Excretion urography

2- CT abdomen

3- Abdominal ultrasound

4- Retrograde pyelography

**5- Micturating cystourethrography**

Q1228. Which of the following is not suggestive of a urinary tract infection?

1- In males >1000 pathogenic organisms per ml with symptoms

2- In males and female who are asymptomatic >100000 pathogenic organisms per ml

3- In males and female who are asymptomatic >1000 pathogenic organisms per ml

4- Any growth of pathogenic organisms for suprapubic aspirate

**5- In males >1000 pathogenic organisms per ml without symptoms**

Q1229. Which of the following should be utilised in the prevention of tumour lysis syndrome?

1- NSAIDs

**2- IV hydration and hypouricaemic agents**

3- Calcium gluconate

4- IV hydration

5- Furosemide

Q1230. In a patient with gout, what renal disorder may they develop related to this?

1- Glomerulonephritis

2- Polycystic kidney disease

**3- Renal stones**

4- Neurogenic bladder

5- Tumour lysis syndrome

Q1231. What is the most significant complication that can occur with metformin use in renal failure?

1- Hyperglycaemia

2- Liver failure

3- Ketoacidosis

**4- Lactic acidosis**

5- Hypoglycaemia

Q1232. In Bartters syndrome what would you most likely see on renal biopsy?

1- Complement deposition

2- Loss of foot processes

3- Mesangium proliferation

**4- Hyperplasia of juxtaglomerular apparatus**

5- Focal segmental glomerulosclerosis

Q1233. In diabetes what is the most common finding on renal biopsy?

1- Complement deposition

**2- Glomerulosclerosis**

3- Loss of foot processes

4- IgG deposits along basement membrane

5- Mesangial proliferation

Q1234. A 75 year old gentleman presents with difficulty voiding urine. He has a past medical history of Type 2 Diabetes Mellitus which is well controlled. For the last few months he has notice he has been suffering from frequency, nocturia and hesitancy when urinating. He now presents as he has been unable to pass urine for the last 24 hours and is complaining of suprapubic discomfort. For the last few days he states he has been feeling unwell with suprapubic discomfort and dysuria. On examination his bladder is palpable. His heart rate is 100 and blood pressure is 150/90.

1- Diabetic Nephropathy

2- Sepsis

**3- Obstructive Uropathy**

4- Hypertension

5- Hypovolaemia

Q1235. A 65 year old female with multiple myeloma presents with malaise. She is found to be in acute renal failure and is hypercalcaemic. She has been taking paracetamol for pain but nil else. A urinalysis reveals a trace of blood and protein. Which of the following is the first action you should take?

1- Cyclophosphamide

2- Dialysis

3- Organise Urgent Renal Ultrasound

4- IV Pamidronate

**5- Commence IV fluids**

Q1236. A 60 year old male is noted to have macroglossia, hepatomegaly and has waxy papules in the eyelids, neck and groin. He complains of symptoms of carpal tunnel syndrome. He has now developed oedema and is found to have nephrotic syndrome. What is the most likely diagnosis?

**1- Amyloidosis**

2- Minimal change disease

3- Hypercholesterolaemia

4- Scleroderma

5- Glomerulonephritis

Q1237. A 61 year old female presents with haematuria. She has been on sulphasalazine for many years for rheumatoid arthritis and takes ramipril for hypertension. Her blood pressure is 140/82 and she has classical rheumatoid features on her hands. Her urine is positive for blood and protein, her haemoglobin is 11 and creatinine levels are slightly raised. What investigation should be performed next?

1- Cystoscopy

2- Renal ultrasound

3- Urine culture

4- CT KUB

**5- Renal biopsy**

Q1238. A 73 year old gentleman presents to his GP with significant peripheral oedema. He has a past medical history of well controlled type 2 diabetes mellitus. He is also complaining of fatigue. Over the last few months he has been taking diclofenac for his osteoarthritis. A urinalysis leaves protein 3+ and bloods reveal a urea of 12.1 and a creatinine of 210. These had been normal 3 months ago. Which of the following would you expect to find on renal biopsy?

1- Nil

2- Membranous Nephropathy

3- Diabetic Nephropathy

**4- Tubulointerstitial Nephritis**

5- Minimal Change Disease

Q1239. A patient notices that whenever he has an upper respiratory infection or gastroenteritis, that there is blood in his urine. He states that even when he has been well that when his urine has been dipped there is still a trace of blood. What is the most likely diagnosis?

1- Henoch Schönlein purpura

2- Paroxysmal nocturnal haemoglobinuria

**3- IgA nephropathy**

4- Goodpastures syndrome

5- Wegeners granulomatosis

Q1240. A 37 year old male has a history of rhinorrhoea , recurrent sinusitis, joints pains and cough with occasional haemoptysis. On dipstick of his urine there is evidence of proteinuria and haematuria. Bloods reveal acute renal failure and autoantibodies reveal a positive cANCA. What is the most likely diagnosis?

1- Microscopic polyangitis

2- Haemolytic Uraemic syndrome

**3- Wegeners Granulomatosis**

4- Churg Strauss syndrome

5- IgA nephropathy

Q1241. A 14 year old girl is suffering from thirst and increased urination. She is found to have a hypokalaemic, hypochloraemic alkalosis and hypomagnesaemia. A 24 hour urine collection reveals hypocalciuria and an ECG QT prolongation. What is the most likely diagnosis?

1- Liddles syndrome

2- Type 1 renal tubular acidosis

3- Bartters syndrome

**4- Gitelmans syndrome**

5- Type 4 renal tubular acidosis

Q1242. A patient is found to have hypokalaemia, hyperchloraemic acidosis, hypercalciuria and a urinary pH of 6.4. What type of renal tubular acidosis does this indicate?

1- Type 2

2- Type 3

3- Type 4

4- Does not indicate renal tubular acidosis

**5- Type 1**

Q1243. A patient is found to have hypokalaemia, hypercholaraemic acidosis and a urinary pH of 6.0. What type of renal tubular acidosis does this indicate?

1- Type 1

**2- Type 2**

3- Does not indicate renal tubular acidosis

4- Type 4

5- Type 3

Q1244. A 25 year old male presents to his GP after noticing a lump in his right testicle. He has recently suffered trauma to his right testicle. On examination there is evidence of a small hydrocoele and there is a discrete lump palpable. Bloods reveal an elevated AFP and beta HCG. Which of the following is the most likely diagnosis?

1- Testicular Torsion

2- Renal Cell Carcinoma

3- Testicular Seminoma

4- Epididymo-orchitis

**5- Testicular Teratoma**

Q1245. A 25 year old male presents to his GP after noticing a lump in his right testicle. He has recently suffered trauma to his right testicle. On examination there is evidence of a small hydrocoele and there is a discrete lump palpable. Bloods reveal an elevated beta HCG and normal AFP. Which of the following is the most likely diagnosis?

1- Renal Cell Carcinoma

2- Testicular Teratoma

**3- Testicular Seminoma**

4- Testicular Torsion

5- Epididymo-orchitis

Q1246. A 22 year old presents with a painless lump in his testicle. It has been confirmed as testicular cancer and he has a radical orchidectomy. Pathology confirms a seminoma and CT scanning reveals 2 cm paraaortic lymphadenopathy but no other lymph node or organ involvement. Which of the following is the next stage in management?

1- Chemotherapy

2- Retroperitoneal lymph node dissection

**3- Radiotherapy to abdominal nodes**

4- Radiotherapy to abdominal nodes + chemotherapy

5- Retroperitoneal lymph node dissection + chemotherapy

Q1247. A 58 year old alcoholic has a cough, haemoptysis, weight loss and night sweats. He now presents with dysuria and frank haematuria. What is the most likely diagnosis?

1- Simple UTI

2- Bladder cancer

**3- Tuberculosis**

4- Wegeners granulomatosis

5- Renal cell carcinoma

Q1248. A 56 year old gentleman presents with loin pain. He also has felt feverish and has noticed an enlarged left testicle which feels like a bag of worms. He is found to be hypertensive and urinalysis reveals microscopic haematuria. Bloods reveal a normochromic normocytic anaemia. Which of the following is the next most appropriate investigation to be performed given the most likely diagnosis?

1- Cystoscopy

2- Haematinics

3- Urine culture

**4- CT Abdomen**

5- Intravenous Urogram

Q1249. A 56 year old male with known peripheral vascular disease and ischaemic heart disease is currently on amlodipine and bendroflumethiazide for blood pressure control. On his last few blood pressure checks he has been found to be hypertensive. He is therefore commenced on ramipril. He had his bloods checked one week later and was found to be in acute renal failure. Given the most likely diagnosis, what is the most appropriate management?

1- Renal artery thrombolysis

2- Renal angioplasty

**3- Stop ACE inhbitor, Aspirin, Statin and optimal blood pressure control**

4- Ultrasound

5- Stop ACE inhbitor until bloods normalise then restart at lower dose

Q1250. A 56 year old presents two weeks post renal transplant with peripheral oedema. Her creatinine has doubled since its last measurement and she is hypertensive. What treatment should be commenced initially?

1- Azathioprine

2- Mycophenolate Mofetil

3- Oral prednisolone

**4- IV Methylprednisolone**

5- Ciclosporin

Q1251. A 69 year old female is receiving haemodialysis for chronic kidney disease. She has a past medical history of long standing diabetes mellitus and hypertension. She complained of feeling light headed, nauseous and sweaty and then collapsed. She When the nurse came back from phoning a doctor she was found to be having a cardiac arrest. Her only abnormal results were a haemoglobin was 9.8g/dl, a creatinine of 810 micromol/l and a calcium of 2.08 mmol/l. What has caused her cardiac arrest?

1- Hyperkalaemia

2- Hypocalcaemia

3- Stroke

4- Hyperosmolar Hyperglycaemic Non-Ketotic Coma

**5- Coronary artery disease**

Q1252. A patient with type 2 diabetes mellitus requires a CT angiography with contrast. His bloods reveal a normal renal function. Which of the following is required to try to prevent the development of contrast nephropathy?

1- Adequate hydration with IV dextrose

2- IV sodium bicarbonate

**3- Adequate hydration with IV 0.9% NaCl**

4- Nil required

5- IV sodium bicarbonate and IV NaCl

Q1253. In acute renal failure secondary to tumour lysis syndrome, which of the following is not a typical finding?

1- Hypocalcaemia

2- Hyperphosphataemia

**3- Hypercalcaemia**

4- Hyperuricaemia

5- Hyperkalaemia

Q1254. A 45 year old who has a past medical history of gout presents with severe loin to groin pain. He states the pain is severe and he is very restless with it. You suspect renal however an AXR does not reveal any evidence of stones. Urinalysis reveals blood and protein. What is the most likely diagnosis?

1- Struvite stones

2- Calcium Oxalate stones

**3- Uric acid renal stones**

4- Pyelonephritis

5- Urinary Tract Infection

Q1255. A 56 year old male with known peripheral vascular disease and ischaemic heart disease is currently on amlodipine and bendroflumethiazide for blood pressure control. On his last few blood pressure checks he has been found to be hypertensive. He is therefore commenced on ramipril. He had his bloods checked one week later and was found to be in acute renal failure. What is the most likely cause?

1- Hypotensive damage

2- Hypovolaemia

**3- Renal artery stenosis**

4- Glomerulonephritis

5- Cardiac failure

Q1256. A 9 year old presents unwell with a mild fever. He had a cold in the preceding few days and has now developed a purpuric rash on his buttocks and legs. He is also complaining of joint pain. A urinalysis reveals haematuria and proteinuria and bloods reveal acute renal failure and eosinophilia. What is the likely pathological basis of the renal disease, given the likely diagnosis?

**1- Glomerular IgA deposition and mesangial proliferation**

2- Loss of podocytes

3- Glomerulo sclerosis

4- Glomerular IgG deposition and mesangial proliferation

5- Glomerular complement deposition and mesangial proliferation

Q1257. A patient has been admitted with severe burns. 3 days into her admission her renal function starts to deteriorate. Her blood pressure is normal and she is well filled on CVP line monitoring. What is the likely cause?

1- Congestive cardiac failure

2- Analgesia associated

3- Sepsis

4- Hypovolaemia

**5- Acute tubular necrosis**

Q1258. A 60 year old male is noted to have macroglossia, hepatomegaly and has waxy papules in the eyelids, neck and groin. He complains of symptoms of carpal tunnel syndrome. He has now developed oedema and is found to have nephrotic syndrome. What is the most likely diagnosis?

1- Minimal change disease

2- Scleroderma

**3- Amyloidosis**

4- Glomerulonephritis

5- Hypercholesterolaemia

Q1259. A 72 year old female presents severe backpain and lethargy. She is also complaining of constipation, thirst and nausea. Bloods reveal acute renal failure and hypercalcaemia. What investigation will provide the diagnosis?

**1- Serum protein electrophoresis**

2- Vitamin D level

3- Renal biopsy

4- LDH

5- Parathyroid level

Q1260. A 37 year old male has a history of rhinorrhoea , recurrent sinusitis, joints pains and cough with occasional haemoptysis. On dipstick of his urine there is evidence of proteinuria and haematuria. Bloods reveal acute renal failure and autoantibodies reveal a positive cANCA. Given the likely diagnosis, what would you expect to find on renal biopsy?

1- Focal glomerulosclerosis

2- Focal segmental glomerulonephritis

3- Mesangial proliferation

4- IgA deposition in basement membrane

**5- Segmental pauci immune crescentic necrotising glomerulonephritis**

Q1261. In pregnancy, how should a UTI be treated?

1- Amoxicillin

**2- Cefalexin**

3- No treatment required

4- Trimethoprim

5- Encourage increased water intake

Q1262. A 45 year old patient has been recently diagnosed with Hodgkin's Lymphoma. He presents with bilateral swelling of his legs up to his knees. This is slightly worse on the left than the right. Bloods reveal a slightly raised creatinine, hypoalbuminaemia and a cholesterol of 10.0 mmol/l. A 24 hour urinary protein reveals a proteinuria of 5.0 g. An ultrasound revealed a left DVT and normal kidneys. The peripheral oedema and proteinuria responds to steroids. A renal ultrasound is normal. Which of the following is the most likely diagnosis?

**1- Minimal Change Disease**

2- Membranous Nephropathy

3- Focal segmental glomerulosclerosis

4- IgA nephropathy

5- Thrombophilia

Q1263. Which of the following is not a cause of normal anion gap metabolic acidosis?

1- Proximal renal tubular acidosis

**2- Ketoacidosis**

3- Distal renal tubular acidosis

4- Addisons

5- Ammonium Chloride Ingestion

Q1264. A patient is found to be in acute renal failure with a potassium of 6.8mmol/L. Her ECG shows tall tented T waves. She is commenced on cardiac monitoring and is given insulin dextrose infusion and salbutamol nebulisers. Which other treatment should be given?

1- Repeat Potassium

2- Further insulin dextrose

3- Calcium resonium

4- Sodium bicarbonate

**5- Calcium Gluconate**

Q1265. If there is proteus mirabilis found in the urine, which of the following is the most likely composition of any associated renal stones?

1- Calcium phosphate

2- Calcium oxalate

3- Uric acid

**4- Ammonium magnesium phosphate**

5- Cysteine

Q1266. A 9 year old presents unwell with a mild fever. He had a cold in the preceding few days and has now developed a purpuric rash on his buttocks and legs. He is also complaining of joint pain. A urinalysis reveals haematuria and proteinuria and bloods reveal acute renal failure, elevated IgA levels and eosinophilia. What is the most likely diagnosis?

**1- Henoch Schönlein Purpura**

2- Thrombotic thrombocytopenic purpura

3- IgA Nephropathy

4- Haemolytic uraemic syndrome

5- Immune thrombocytopenic purpura

Q1267. A patient notices that whenever he has an upper respiratory infection or gastroenteritis, that there is blood in his urine. He states that even when he has been well that when his urine has been dipped there is still a trace of blood. Given the likely diagnosis, what is the likely pathological process?

1- Deposition along basement membrane of immunoglobulins and complement

2- Focal segmental glomerulosclerosis

**3- Mesangial proliferation with prominent IgA deposition**

4- Complement deposition

5- Loss of podocytes

Q1268. A 72 year old female presents severe back pain and lethargy. She is also complaining of constipation, thirst and nausea. Bloods reveal acute renal failure and hypercalcaemia. Given the most likely diagnosis, what is the underlying mechanism contributing the most to the renal failure?

1- Amyloidosis

**2- Light chain production**

3- Hypercalcaemia

4- Hyperviscosity

5- Hypertension

Q1269. A patient is found to have cystine renal stones. What is the most likely cause of this?

1- Cystinosis

2- Furosemide abuse

3- Calciuria

**4- Cystinuria**

5- Poor water intake

Q1270. A patient notices that whenever he has an upper respiratory infection or gastroenteritis, that there is blood in his urine. He states that even when he has been well that when his urine has been dipped there is still a trace of blood. Given the likely diagnosis, what is the likely pathological process?

1- Deposition along basement membrane of immunoglobulins and complement

2- Complement deposition

3- Focal segmental glomerulosclerosis

4- Loss of podocytes

**5- Mesangial proliferation with prominent IgA deposition**

Q1271. The mutation of which of the following can lead to nephrogenic diabetes insipidus?

1- Insulin receptor

2- Collagen type IV

**3- Aquaporin 2**

4- Aquaporin 1

5- Glomerular basement membrane protein

Q1272. Metformin if utilised in renal impairment can lead to which of the following?

**1- Lactic acidosis**

2- Proteinuria

3- Liver disease

4- Hypertension

5- Worsening renal failure

Q1273. An 18 year old male presents with features of infectious mononucleosis. However he has now noticed quite marked swelling in his face and legs. Bloods reveal a low albumin. Urinalysis reveals proteinuria and 24 hour collection reveal an protein excretion of 4g/day. There is nil of note on a renal biopsy. What is the most likely underlying cause of his symptoms?

1- Focal segmental glomerulosclerosis

2- Minimal change disease leading to nephritic syndrome

3- Membranoproliferative glomerulonephritis

**4- Minimal change disease leading to nephrotic syndrome**

5- Membranous nephropathy

Q1274. A 4 year old boy is having recurrent UTIs and has hesitancy and poor urine stream. What is the most likely diagnosis?

1- Horseshoe kidney

2- Vesicoureteric reflux

3- Polycystic kidney disease

**4- Posterior urethral valve**

5- Poor hygiene

Q1275. A patient notices that whenever he has an upper respiratory infection or gastroenteritis, that there is blood in his urine. He states that even when he has been well that when his urine has been dipped there is still a trace of blood. He is found to be hypertensive. Given the most likely diagnosis, what antihypertensive is the treatment of choice?

1- Amlodipine

2- Losartan

3- Bendroflumethiazide

4- Atenolol

**5- Ramipril**

Q1276. A 65 year old male presents with a one month history of nausea and weakness. He has also noticed significant ankle swelling and blood in his urine. On examination there is evidence of bilateral pitting oedema to his knees and he is hypertensive. Bloods reveal a creatinine that has doubled in the last 3 months and he is slightly anaemic. Anti GBM antibodies are detected. A urinalysis reveals proteinuria and haematuria. What is the most likely diagnosis?

1- Interstitial Nephritis

2- IgA nephropathy

3- Focal glomerulosclerosis

**4- Rapidly Progressive Glomerulonephritis**

5- Minimal change disease

Q1277. A 45 year old male with end stage renal failure requires regular haemodialysis. He is found to be hypocalcaemic. An Xray of his hands reveals loss of cortical outline with fine fraying at the tip of the terminal phalanges. Which of the following is the most likely diagnosis?

1- Primary Hyperparathyroidism

**2- Secondary Hyperparathyroidism**

3- Osteoporosis

4- Osteopenia

5- Amyloid deposition

Q1278. A 55 year old male with type 2 diabetes mellitus has chronic kidney disease. He has had a previous episode of nephrotic syndrome and has persistent proteinuria. His creatinine and eGFR have been static. He presents with three episodes of painless frank haematuria. Bloods do not reveal any worsening of his eGFR or creatinine. There is nil of note on examination. There is no evidence of suprapubic tenderness or sepsis and he is not complaining of abdominal pain. There is no leucocytes or nitrates on urinalysis. A renal ultrasound shows no serial change.

1- CT KUB

**2- Cystoscopy**

3- Renal Biopsy

4- Intravenous Urography

5- Urine culture

Q1279. A 45 year old patient has been recently diagnosed with Hodgkin's Lymphoma. He presents with bilateral swelling of his legs up to his knees. This is slightly worse on the left than the right. Bloods reveal a slightly raised creatinine, hypoalbuminaemia and a cholesterol of 10.0 mmol/l. A 24 hour urinary protein reveals a proteinuria of 5.0 g. An ultrasound revealed a left DVT and normal kidneys. The peripheral oedema and proteinuria responds to steroids. A renal ultrasound is normal. What would you expect to find on renal biopsy?

1- Glomerular basement membrane thinning

**2- Retraction of the epithelial foot processes on electron microscopy**

3- Segmental sclerosis

4- IgG and complement deposition in mesangium

5- Small deposits in subepithelial area of capillary walls on electron microscopy

Q1280. A 64 year old gentleman with type 2 diabetes mellitus is found to have proteinuria on urinalysis. He is also complaining of ankle swelling. He is found to have an albumin of 20g/l and the proteinuria is quantified at 4g/24 hours. On examination there is evidence of preproliferative retinopathy on fundoscopy and his blood pressure is 160/80mmHg. His recent HBA1c was 8.8%. Which of the following is the most likely cause?

1- IgA Nephropathy

2- Membranoproliferative Glomerulonephritis

3- Minimal Change Disease

4- Membranous Nephropathy

**5- Diabetic Nephropathy**

Q1281. A 64 year old gentleman with type 2 diabetes mellitus presents with ankle swelling. He is found to have proteinuria on urinalysis. He is found to have an albumin of 20g/l and the proteinuria is quantified at 4g/24 hours. On further questioning he states that he has had about 2 stones in weight loss over the last 6 months and dysphagia. On examination there is no evidence of retinopathy on fundoscopy and his blood pressure is 140/90mmHg. His recent HBA1c was 7.0%. Which of the following is the most likely cause?

1- Focal Segmental Glomerulosclerosis

**2- Membranous Nephropathy**

3- Membranoproliferative Glomerulonephritis

4- Minimal Change disease

5- Diabetic Nephropathy

Q1282. A 33 year old female who returned 2 months ago from a safari in Africa presents with nephrotic syndrome. Which of the following plasmodium which cause malaria is most likely to lead to the Nephrotic Syndrome?

**1- Plasmodium Malariae**

2- Plasmodium Ovale

3- Plasmodium Knowlesi

4- Plasmodium Vivax

5- Plasmodium Falciparum

Q1283. A 22 year old female is found to have haematuria and proteinuria on urinalysis. She is not complaining of dysuria, abdominal pain or any other urinary symptoms. You note on examination that her face appears cachetic. Her buccal fat pads are absent and her eyes appear sunken. Which of the following is the most likely diagnosis?

**1- Type 2 Membranoproliferative Glomerulonephritis**

2- Urinary Tract Infection

3- Lupus Nephritis

4- Type 1 Membranoproliferative Glomerulonephritis

5- Acute Glomerulonephritis

Q1284. A 22 year old female is found to have haematuria and proteinuria on urinalysis. She is not complaining of dysuria, abdominal pain or any other urinary symptoms. You note on examination that her face appears cachetic. Her buccal fat pads are absent and her eyes appear sunken. Which of the following would you expect to find on bloods?

1- Low C4 levels

2- Cryoglobulins

3- Anti nuclear antibodies

**4- Low C3 levels**

5- ANCA

Q1285. A 6 year old boy presents with a palpable purpuric rash on his buttocks and lower limbs. He is also complaining of some mild joint pain in the knees and ankles. There is evidence of proteinuria on urinalysis. He is otherwise very well and his bloods are normal with no evidence of renal impairment, although he is complaining of mild joint discomfort. He is diagnosed with Henoch Schönlein purpura. Which of the following should be utilised initially in the management?

1- Paracetamol

**2- Ibuprofen**

3- IV fluids

4- Prednisolone

5- Azathioprine

Q1286. Which of the following is the most likely composition of a staghorn calculi?

1- Uric Acid

2- Cystine

3- Calcium Oxalate

4- Calcium Phosphate

**5- Magnesium ammonium phosphate**

Q1287. Which of the following is the most common composition of renal stones?

**1- Calcium oxalate**

2- Uric acid

3- Ammonium magnesium phosphate

4- Calcium phosphate

5- Cysteine

Q1288. Which of the following is not a feature of Alports syndrome?

**1- Conductive hearing loss**

2- Anterior lenticonus

3- Sensorineural deafness

4- Cataracts

5- Haematuria

Q1289. A patient with end stage renal failure has a normocytic normochromic anaemia. What is the most likely cause?

1- Haemolytic anaemia

2- Folate deficiency

3- Iron deficiency

**4- Erythropoietin deficiency**

5- B12 deficiency

Q1290. Which of the following is not a cause of membranous nephropathy?

1- Systemic lupus erythematous

2- Diabetes

**3- Alports syndrome**

4- Lymphoma

5- Gold

Q1291. A 72 year old female presents severe back pain and lethargy. She is also complaining of constipation, thirst and nausea. Bloods reveal acute renal failure and hypercalcaemia. What investigation will provide the diagnosis?

**1- Serum protein electrophoresis**

2- LDH

3- Parathyroid level

4- Renal biopsy

5- Vitamin D level

Q1292. Which of the following is not a risk factor for recurrent urinary tract infections?

1- Urinary tract abnormalities

2- Diaphragm use

3- Sexual intercourse

**4- Over hydration**

5- Incomplete bladder emptying

Q1293. A patient is undergoing dialysis when he suddenly develops headache, nausea, blurred vision and becomes disorientated. What is the most likely diagnosis?

1- Hypovolaemia

2- Hypernatraemia

3- Hypokalaemia

**4- Disequilibrium syndrome**

5- Hypertensive encephalopathy

Q1294. Which of the following is not a risk factor for the development of contrast induced nephropathy?

**1- Hypertension**

2- Hypovolaemia

3- Renal disease

4- Congestive heart failure

5- Diabetes

Q1295. Which of the following disorders is not associated with A amyloidosis?

1- Dialysis

2- Tuberculosis

3- Renal cell carcinoma

4- Hodgkins Disease

**5- Rheumatoid Arthritis**

Q1296. A 28 year old female presents to her GP with joint pain , fever, a butterfly rash and fatigue. She has marked peripheral oedema. She is found to be hypertensive, in acute renal failure, low albumin levels and proteinuria. What is the most likely diagnosis?

1- Membranous glomerulonephritis

2- Wegeners granulomatosis

3- Henoch Schönlein purpura

**4- Systemic Lupus Erythematosus**

5- Polyarteritis nodosa

Q1297. A patient is found to have hyperkalaemia, hyperchloraemic acidosis and a urinary pH of 5.0. Given the most likely type of renal tubular acidosis, which of the following treatments is useful?

1- ACE inhibitors

2- Bicarbonate

**3- Fludrocortisone**

4- Nil required

5- Prednisolone

# Chapter 8 Neurology

Q1298. A 48 year old female is complaining of repeatedly burning her right hand as she is unaware of the temperature. She also has occipital headaches which are worsened by sneezing and coughing. Which of the following is the likely diagnosis?

**1- Syringomyelia**

2- Brachial Plexus Injury

3- Space Occupying lesion

4- Cervical Disc Prolapse

5- Peripheral Neuropathy

Q1299. Which of the following is the most likely finding on clinical examination in a patient with Arnold Chiari malformation?

1- Nil

2- Horizontal Nystagmus

3- Upbeat nystagmus

4- Rotatory nystagmus

**5- Downbeat nystagmus**

Q1300. A 49 year old woman presents with unilateral hearing loss and shooting pain in right side of face. Audiometry reveals a right sided sensorineural hearing loss. What is the most likely diagnosis?

1- Perforated Ear drum

**2- Acoustic neurinoma**

3- Trigeminal neuralgia

4- Long QT syndrome

5- Otitis Media

Q1301. A 24 year old female has been being treated for depression and anxiety. She now presents with worsening of her mood and memory difficulties. She has noticed pain in her legs and feeling her legs jerking. You notice she has an ataxic gait and some odd choreiform movements and occasional myoclonic jerks. She is referred for an MRI which shows high signal in the posterior thalamus. An EEG reveals no abnormalities. What is the likely diagnosis?

1- Depression

2- Sporadic Creutzfeldt Jakob disease

**3- New variant Creutzfeldt Jakob disease**

4- Huntingtons Chorea

5- Picks Disease

Q1302. A 23 year old female presents to her GP with headaches which she states are worse in the morning and last thing at night and on coughing and posture change. She has also been vomiting. She is reassured and given analgesia. She then is admitted to A and E following a generalised tonic clonic seizure. She is found to have 4/5 weakness in right side and upgoing plantars. A CT head reveals a large multicentric mass with surrounding oedema in the left frontal lobe. There is some midline shift. What is the likely diagnosis?

1- Parasitic Cyst

2- Metastatic Disease

**3- Glioblastoma**

4- Stroke

5- Meningioma

Q1303. A 57 year old gentleman is brought to A+E by his wife. She states that he has been repeating himself and was unable to retain what she had just told him. He also could not remember his best friend passing away in the previous week. He knew who he was and who his wife was and remember things from the distant past. This has now completely resolved and he does not recall the event. There was nil of note on examination and bloods were normal. Which of the following is the most likely diagnosis?

1- Stroke

2- Functional Disorder

3- TIA

**4- Transient global amnesia**

5- Fugue state

Q1304. A 68 year old female is brought to her GP by her husband. He states she has become very forgetful of late and is unable to concentrate. He has also noticed over the last few months that she is incontinent of urine and has been walking in an unusual way. On examination there is evidence of gait apraxia and her reflexes are brisk. What is the most likely diagnosis?

1- Alzheimers disease

2- Lewy body dementia

**3- Normal pressure Hydrocephalus**

4- Parkinsons disease

5- Picks disease

Q1305. A 58 year old gentleman who is known to drink excessively, presents with a 2 week history of a progressively worsening headache. This has been associated with nausea and vomiting. You notice he appears drowsy and forgetful and that he has a healing cut and bruising on his head. He states he has been told by his family that he is sleeping more than usual. On examination there is nil signs of meningism but you notice a 4/5 power on the left side. What is the most likely diagnosis?

1- Stroke

2- Meningitis

3- Migraine

4- Subarachnoid haemorrhage

**5- Subdural Haematoma**

Q1306. A 22 year old patient is brought to A+E. She was complaining of a headache, malaise, fever and nausea and vomiting one day previously and then suddenly dropped her conscious level. She is dysphasic and has a right hemiparesis. She then develops a focal seizure. A CT shows abnormalities in temporal lobes. A lumbar puncture is performed and reveals a slightly high protein, normal glucose and mononuclear cells. Given the most likely diagnosis, which treatment is it most likely to respond to?

1- IV ceftriaxone

2- IV amoxicillin

**3- IV aciclovir**

4- IV dexamethasone

5- Oral aciclovir

Q1307. You are referred a 14 year old boy as he has been noted to be ataxic and dysarthric. On examination you notices he has a unilateral resting tremor and odd spasms in his facial muscles. Blood tests reveal deranged LFTs. Given the most likely diagnosis, which of the following is most useful in the treatment?

**1- Penicillamine**

2- Tetrathiomolybdate

3- Steroids

4- Venesection

5- Selenium

Q1308. A 24 year old female has a history of migraines. On a visit to her optician he notes that one of her pupils is larger than the other and does not react to light. There is no abnormal findings in eye movement, acuity or on fundoscopy. Which of the following explains her pupillary findings?

**1- Holmes Adie pupil**

2- Horners syndrome

3- Third cranial nerve palsy

4- Brain tumour

5- Argyll Robertson pupil

Q1309. A 70 year old male with long standing diabetes presents with severe pain in his left thigh. On examination there is marked wasting of his quadriceps on the left side and loss of knee reflex. What is the most likely diagnosis?

1- Peripheral neuropathy

2- Acute painful neuropathy

3- Autonomic neuropathy

**4- Diabetic amyotrophy**

5- Mononeuritis Mulitplex

Q1310. A woman presents to her GP after noticing lumps in her skin and freckling in her armpits. She has also noticed an odd area of pigmentation on her abdomen She is 3 months pregnant. What is the likely diagnosis?

1- Sun exposure

2- Hereditary Haemorrhagic Telangiectasia

3- Von Hippel Lindau

**4- Neurofibromatosis**

5- Tuberous sclerosis

Q1311. A 72 year old man presents to A and E with a funny turn. he has a history of hypertension. On examination he is found to have grade 3/5 and reduced sensation in his right arm and leg. He is also found to have reduced sensation on the left hand side of his face and there is evidence of a Horners Syndrome. He is ataxic. Where is the lesion likely to be?

1- Cerebellum

2- Internal Capsule

3- Pons

4- Medulla

**5- Brain stem**

Q1312. A 54 year old man who is known to drinks excessively is found to be wandering the street, confused. On examination there is nil of note except his power is 4/5 on his left side. What is the likely diagnosis?

1- Wernicke Korsakoff syndrome

**2- Chronic subdural haematoma**

3- Space occupying lesion

4- Sub arachnoid haemorrhage

5- TIA

Q1313. An 8 year old girl has recurrent seizures. He has several cafe au lait spots. He has an uncle and cousin with the the same cafe au lait spots. How would you confirm the likely diagnosis

**1- Slit lamp examination of the eye**

2- CT Head

3- EEG

4- Genetic Testing

5- Auto antibodies

Q1314. A 72 year old female is reviewed at the memory clinic due to forgetfulness which fluctuates. On further questioning she has a shuffling gait and is also visually hallucinating. She has no PMH of note. What is the likely diagnosis?

**1- Lewy Body Dementia**

2- Vascular Dementia

3- Frontal Dementia

4- Normal Ageing

5- Alzheimers Disease

Q1315. A 20 year is referred for review following several collapse episodes. She described them as feeling light headed vision going black and a feeling of nausea and then she would black out. A witness states she jerked a couple of times during one collapse episode. She then recovers quickly. Other than this she is fit and healthy. Which of the following is the most likely diagnosis?

1- Cardiac Arrhythmia

2- Seizure

**3- Vasovagal syncope**

4- Dehydration

5- Pseudoseizure

Q1316. A 32 year old female has a sudden onset occipital headache and describes it is as the worst headache of her like. She vomits several times and feels her neck stiff. A CT head is performed and is normal. How would you investigate this lady further?

1- Prescribe a triptan and analgesia and discharge

2- Routine Bloods

3- Repeat C Head in 12 ours

**4- Lumbar Puncture after 12 hours**

5- MRI

Q1317. How do you monitor someone presenting with Guillain Barre Syndrome?

1- PEFR

2- FEV1/FVC

3- Regular Obs

4- Oxygen Saturation

**5- Vital capacity**

Q1318. A 37 year old joiner is referred to the clinic as he has a 6 month history of lower back pain. It had come on suddenly 6 months ago. He now has shooting pain down the back of both legs worse on left than right. He also has numbness in his left foot. On examination the pain is reproduced at 20 degrees straight leg lift on left. He has reduced sensation over the sole of his foot of his foot and his ankle reflex is diminished and plantars are down going. Which of the following is the likely diagnosis?

**1- L5/S1 disc prolapse**

2- Discitis

3- L4/L5 disc prolapse

4- Mechanical Back pain

5- Cauda equina syndrome

Q1319. A 65 year old has been brought to A+E following a collapse. On examination he has a left hemiparesis, his pupils are small and his breathing appears irregular. 2 hours before he collapsed he was complaining of a headache, vertigo and vomited. How do you manage this patient?

1- MRI

**2- CT Head**

3- Lumbar puncture

4- Mannitol

5- Observe

Q1320. An 18 year old student is feeling increasingly drowsy. He also awakes repeatedly in the morning where he feels awake but cannot move. How would you investigate?

1- Multiple sleep latency EEG

2- Reassure

**3- MRI**

4- Routine Blood tests

5- CT Head

Q1321. A 38 year old has had sinusitis for 1 week. She presents to A and E however as over the last day she has had a severe headache and several episodes of vomiting. She is pyrexial. An LP is performed and CSF shows a protein of 1.1, glucose half serum value and lymphocytes are evident. There is no organisms seen. Which of the following is the most likely diagnosis?

1- Tuberculous meningitis

2- Migraine

3- SAH

**4- Partially treated bacterial meningitis**

5- Viral Meningitis

Q1322. What is the most supportive of a diagnosis of multiple sclerosis?

**1- CSF Oligoclonal Bands**

2- Sensory symptoms in right foot and hand

3- Normal visual evoked potentials

4- High level of CSF protein

5- Low CSF glucose content

Q1323. A 46 year old woman is referred with dysphagia and dysarthria. On examination she is hypertonic in all limbs and she has a brisk gag reflex but there is no evidence of sensory change. Her hands appear wasted. What is the likely diagnosis?

1- Space Occupying Lesion

2- Adrenoleucodystrophy

3- Cervical Disc Prolapse

4- Multiple sclerosis

**5- Motor neurone disease**

Q1324. A 28 year old gentleman had an URTI. Approximately 2 weeks later he presented to A and E with a distal weakness. On examination he is pyrexial and slightly tachycardic with a normal blood pressure but is tachypneoic. Neurological examination reveals 4/5 power in all limbs distally and weakness is his facial muscles. There is no sensation loss. Reflexes are absent. What is the likely diagnosis?

1- Motor Neurone Disease

2- Peripheral Neuropathy

**3- Guillain Barre syndrome**

4- Poliomyelitis

5- Myasthenia gravis

Q1325. You are asked to review a woman 1 day post delivery. She has had a seizure and over the last day has been on IV fluid replacement due to cvomiting and diarrhoea. On examination she looks pale and unwell, is tachycardic and hypotensive. You notice she has a right sided 4/5 power in her limbs. What is the most likely diagnosis?

**1- Sagittal sinus thrombosis**

2- Intracerebral haemorrhage

3- Amniotic fluid embolism

4- Eclampsia

5- Severe dehydration and hypokalaemia

Q1326. What blood vessel if thrombosed would lead to a Right sided Horners Syndrome and intention tremor and right sided facial loss of pain and temperature sensation and left sided body pain and temperature loss and weakness?

1- Right Anterior Cerebral Artery

2- Vertebral Artery

3- Left middle cerebral artery

4- Right posterior Cerebral artery

**5- Right posterior inferior cerebellar artery**

Q1327. If a patient presents with a sudden onset occipital headache with neck stiffness and vomiting with no PMH and a CT Head was normal, what would you do next?

**1- Lumbar Puncture**

2- Prescribe Ceftriaxone

3- Prescribe a Triptan

4- CTA

5- MRI

Q1328. A patient with Parkinsons disease on treatment with L dopa and a dopa decarboxylase inhibitor is experiencing troublesome tremor what would you prescribe?

1- Propranolol

2- Amantadine

3- Nothing

**4- Procyclidine**

5- Selegiline

Q1329. You are referred a 14 year old boy as he has been noted to be ataxic and dysarthric. On examination you notices he has a bilateral resting tremor and odd spasms in his facial muscles. Blood tests reveal deranged LFTs. Which of the following is the most likely diagnosis to explain his signs and symptoms?

1- Parkinsons Disease

2- CJD

3- Huntingtons chorea

**4- Wilsons disease**

5- Motor Neurone Disease

Q1330. A 45 year old female presents to her GP as she is worried about a tremor in her left hand that is worse when she is doing things. Her mother had a similar tremor. The rest of her examination is unremarkable. How would you manage this woman?

**1- Propranolol**

2- Procyclidine

3- l Dopa

4- Reassure

5- Amantadine

Q1331. A 32 year old male with type 1 diabetes mellitus is complaining of double vision. It is worst on looking left and is improved when covering his left eye. What structure is likely to have been involved?

1- Right abducens

2- Left trochlear

**3- Left abducens**

4- Left oculomotor

5- Left optic nerve

Q1332. A patient cannot adduct his right eye and has nystagmus in the left eye on looking left. Where is the likely lesion?

1- Left oculomotor nerve

2- Left optic nerve

**3- Right medial longitudinal fasciculus**

4- Left cerebellum

5- Left medial longitudinal fasciculus

Q1333. A 50 year old female has noticed loss of taste, facial weakness and hypersensitivity to sound. On examination there is a left facial nerve palsy including the forehead and reduced sensation on the left side of the face. What structure is likely to be involved?

1- Auditory canal

2- Parotid gland

3- Left Facial nerve

**4- Cerebellopontine angle**

5- Cerebral cortex

Q1334. What is the most appropriate drug to commence in Trigeminal Neuralgia?

1- Gabapentin

**2- Carbamazepine**

3- Amitriptyline

4- Pregabalin

5- Diazepam

Q1335. A 72 year old male presents to GP with a three day history of severe right earache. He describes this as a burning sensation in the ear. He is also suffering from vertigo and loss of taste. On examination there is a right sided facial weakness. Which of the following is the most likely diagnosis?

1- Otitis media

2- Cholesteatoma

3- Cerebellopontine angle tumour

**4- Ramsay Hunt syndrome**

5- Stroke

Q1336. A patient presents with a nine month history of tingling and weakness in her legs. The patient has bilateral 4/5 power, has loss of ankle reflexes and is hyperreflexic at his knees with upgoing plantars. There is also loss of joint position sense and vibration sensation. What is the likely diagnosis?

**1- Vitamin B12 deficiency**

2- Lumbar Disc Prolapse

3- Transverse Myelitis

4- Spinal Tumour

5- Syringomyelia

Q1337. Infarction of what area of the brainstem would lead to preserved horizontal eye movements, dolls eye reflexes, impaired convergence and upward and downward gaze and sluggish dilated pupils?

**1- Dorsal midbrain**

2- Ventral midbrain

3- Ventral pons

4- Dorsal pons

5- Lateral medulla

Q1338. A patient presents with a TIA. Investigation with carotid angiography of the carotid shows stenosis in a string of beads pattern. What is the likely cause of these findings?

1- Internal Carotid Aneurysm

2- Atherosclerosis

**3- Fibromuscular hyperplasia**

4- Vasculitis

5- Giant Cell Arteritis

Q1339. A 45 year old with a history of polyneuropathy now complains of diarrhoea, dizziness when standing up and erectile dysfunction. What is the likely underlying condition leading to his neuropathy?

1- Chronic Renal Failure

2- Vitamin B12 deficiency

3- Paraneoplastic neuropathy

4- Amyloidosis

**5- Type 2 Diabetes Mellitus**

Q1340. A 72 year old male presents to his GP with severe right sided facial pain affecting his cheek. They occur intermittently and he can have several within an hour. They affect the upper part of the face, are very sudden and last a few seconds or so. It is aggravated by the cold. He has no PMH. On examination there is reduced sensation in the right cheek and forehead and loss of corneal reflex. What is the most likely diagnosis?

1- Idiopathic trigeminal neuralgia

2- Herpetic Trigeminal Neuralgia

3- Toothache

4- Partial Seizure

**5- Compression of Trigeminal nerve by tumour**

Q1341. A 68 year old female presents with left shoulder blade and axillary pain. This radiates down her arm to her fingers worst in the index and middle finger. She has a history of chronic neck pain. On examination she has reduced, painful neck movements. There is 4/5 power in wrist extension and reduced sensation to pain in the middle and index fingers. There of loss triceps reflex on the left. At what level is her cervical disc prolapse likely to be?

1- C4,5

**2- C6,7**

3- C7,8

4- C5,6

5- C8, T.1

Q1342. A 55 year old female presents with double vision. On examination there is evidence of reduced sensation on the right side of her forehead. You notice her right eye has a right ptosis and dilated poorly reactive pupil and she can minimally move her eye. Where is the likely site of the lesion?

1- Right Internal auditory meatus

2- Right cerebello pontine angle

**3- Right cavernous sinus**

4- Right retro orbital space

5- Left Cavernous Space

Q1343. In Von Hippel Lindau disease what malignancy is she at increased risk of?

1- Small Cell Lung Cancer

**2- Renal cell carcinoma**

3- Cutaneous neurofibroma

4- Pancreatic carcinoma

5- Colorectal Carcinoma

Q1344. A 45 year old male has attended the GP with his wife who has noticed a change in his personality and cognitive impairment over the last 6 months. He has previous history of a stroke and TIAs. He has a family history of stroke at young age. His son has suffers from migraines and has presented with what seemed like TIAs. On examination he has a right hemiparesis, is hyperreflexic and has upgoing plantars. He has an MMSE of 22/30. What is the likely underlying diagnosis?

1- Mitochondrial encephalopathy with leucoencephalopathy and stroke like features (MELA S) 2- Cerebral autosomal dominant arteriopathy with subcortical infarcts and leucoencephalopathy (CADASI L) 3- Early Onset Alzheimers

4- Vasculitis

5- Picks Disease

Q1345. A 33 year old female presents with ascending paralysis of her lower limbs over the last few days and paraesthesia of her feet. She has now noticed weakness in her hands. You suspect she has Guillain Barre syndrome. A nerve conduction study shows reduced conduction velocity, conduction block and small compound motor and sensory potentials. What is the neuropathology?

1- Mixed axonal degeneration and demyelination

**2- Segmental demyelination**

3- Axonal degeneration

4- Global demyelination

5- Wallerian degeneration

Q1346. What is the most useful treatment for Gilles de la Tourette syndrome?

1- Chlorpromazine

2- Cognitive behavioural therapy

**3- Risperidone**

4- Tricyclic Anti depressants

5- Clozapine

Q1347. A 70 year old female presents with paraesthesia in her feet. On examination there is power 4/5 and there is absent ankle reflexes but hyperreflexia at the knees. She has loss of joint position sensation and vibration but intact pain and temperature sensation. Om checking her recent bloods you note a macrocytic anaemia. Given the likely diagnosis what would be seen on a spinal MRI?

**1- Increased signal in the posterior columns in T2 weighted imaging**

2- Nil of note

3- Increased signal in pyramidal tracts in T1 weighted imaging

4- Reduced signal in the posterior columns in T2 weighted imaging

5- Lesion in spinal cord

Q1348. A patient presents with intermittent spasms of her neck leading her to turn her head to the side. During these spasms her sternocleidomastoid and trapezius muscles are hard and contracted. She is diagnosed with spasmodic torticollis. What would be the most useful for the management?

1- Baclofen oral

**2- Botox to affected muscles**

3- Gabapentin

4- Botox to normal muscles

5- Baclofen Injection

Q1349. When a patient has with MND has dysphagia, weight loss and reduced Vital capacity, how would be most appropriate to provide nutritional supplementation?

1- Percutaneous endoscopic gastrostomy feeding

2- Nasogastric feeding

3- High Protein Drinks

4- Total parenteral nutrition

**5- Radiologically inserted gastrostomy feeding**

Q1350. A 40 year old female with multiple sclerosis presents with urinary frequency, urgency and occasional urge incontinence. She has chronic spastic paraparesis and cerebellar ataxia. How would you first manage the patient?

1- Antibiotic prophylaxis

2- Intermittent Self Catheterisation

3- Cystoscopy

4- Anticholinergic

**5- MSSU and measure postmicturition residual volume**

Q1351. When assessing a patient with Alzheimers for starting an Acetylcholinesterase inhibitor what would be the most likely reason to make them eligible for treatment?

1- Carers thoughts

2- Duration of Illness

**3- MMSE Score**

4- Co existent Hypertension

5- Age

Q1352. A 40 year old female has a history of migraines with aura which are increasing in frequency occurring about 5 times a month. She has had to phone in sick to work on several occasion. She has a PMH of asthma and is on HRT. Simple analgesia no longer works. How would you manage this patient?

1- Prophylactic treatment with propanolol

2- Prophylactic treatment with verapamil

**3- Prophylactic treatment with amitriptyline**

4- Use of opioid analgesia

5- Try a different triptan

Q1353. A 24 year old male is referred by his GP due to one weeks history of drooling, difficulty closing his eyes and inability to smile. On examination he is found to have weak movement in all facial expression muscles however sensation is normal and there is nil else of note. He is fit and well otherwise. Which of the following is the most likely diagnosis?

**1- Bilateral Bells palsy**

2- MND

3- Sarcoidosis

4- Stroke

5- Myasthenia gravis

Q1354. A 28 year old is wishing to conceive. She has epilepsy and has been seizure free for one year with phenytoin and lamotrigine. What do you advise in regards to becoming pregnant?

1- Commence high dose folic acid when pregnant

2- Stop one of her anti epileptics immediately

**3- Commence high dose folic acid now and try to withdraw one of her anti epileptic drugs**

4- Commence a multivitamin tablet and reduce dose of anti epileptics

5- Commence high dose folic acid now

Q1355. A 55 year old male is referred with confusion and short term memory loss progressing over a 6 week period. On examination he has poor balance and finger

1- Frontal Temporal Dementia

2- Korsakoffs psychosis

3- Lewy Body dementia

**4- Sporadic Creutzfeldt**

5- Alzheimers

Q1356. A 17 year old presents with generalised headache, malaise and confusion. She is pyrexial and dysphasic although there is no other focal neurology or any other examination findings. A CT brain scan shows hypodensity in both temporal lobes. Which treatment should be initiated early for effective treatment?

1- IV fluids and steroids

2- IV steroids

3- IV fluids, IV aciclovir and anticonvulsants

**4- Intravenous fluids and IV aciclovir**

5- IV fluids and antibiotics

Q1357. A 57 year old male farmer has double vision, slurred speech and is unsteady on his feet. He has lost weight and is generally malaised. On examination he is found to have a bilateral VIth nerve palsy, facial asymmetry and dysarthria. He has generalised lymphadenopathy. There is nil else of note on examination. A Lumbar puncture reveals an elevated protein level, raised white cell count, predominantly lymphocytes and a low CSF/blood glucose ratio. What is the most likely diagnosis you should consider? cause for his symptoms should be considered most likely pending further investigations?

1- Viral Meningitis

2- Malignant meningitis

**3- Tuberculous (T B) meningitis**

4- Sarcoidosis

5- Lyme disease

Q1358. A patient with Parkinsons disease on laevo dopa with a peripheral dopa decarboxylase inhibitor is having increasing rigidity and tremor and is now having more off periods. What medication changes would you make?

1- Addition of amantadine

2- Nil

**3- Addition of a dopamine agonist**

4- Addition of a catechol o methyltransferase (COM T) inhibitor

5- Apomorphine injections

Q1359. A 43 year old female has intermittent pins and needles and numbness in her right thigh. She is otherwise fit and well and on examination there is nil of note except reduced sensation over her anterolateral right thigh. She has a FH of Multiple Sclerosis.

1- Peripheral Neuropathy

2- Diabetic Neuropathy

**3- Meralgia paraesthetica**

4- Multiple Sclerosis

5- Disc Prolapse

Q1360. A 68 year old male is referred due to several months history of slurred speech and dysphagia. On examination he has weakness of jaw closure and difficulty in protruding his tongue and you notice wasting and fasciculation of his tongue. There is nil else of note on examination and no sensory disturbance. Which of the following is the most likely diagnosis?

1- Cerebellopontine tumour

2- Myasthenia gravis

**3- Motor neurone disease (MN D) 4- Syringobulbia**

5- Cranial nerve palsies secondary to metastases

Q1361. A 28 year old who is 7 months pregnant presents with pain and tingling in her left hand which she notices is worst in the morning. She has also noticed dropping things. On examination there is 4/5 power in the left abductor pollicis brevis and of thumb flexion. There is reduced sensation in the left thumb, index, middle and half of the lateral half of the ring finger. There is nil else of note. What is the most likely structure affected?

1- Axillary Nerve

**2- Median Nerve**

3- Ulnar nerve

4- C7 nerve root

5- Radial Nerve

Q1362. A 65 year old male is brought to A and E. He had collapsed. Prior to this he felt light headed. He has since noticed that he has double vision when looking to the left side and on examination his right eye has a dilated pupil, is looking down and in, and he has ptosis. He also has a left sided hemiparesis. Which artery has been affected?

1- Anterior cerebral artery

2- Anterior communicating artery

3- Posterior cerebral artery

4- Middle cerebral artery

**5- Basilar artery branch**

Q1363. A 38 year old man presents to his GP with headaches. He has been having severe headaches occurring several times a day for a couple of hours (often worse at nigh t) which then settle after a few weeks and recur again. The pain is predominantly around the eye and his eye feels full and he notices it watering and his eye appears red. There is no visual disturbance. What is the most likely diagnosis?

**1- Cluster headache**

2- Pressure Headache

3- Glaucoma

4- Tension Headache

5- Migraine

Q1364. A 29 year old female has presented to her GP with visual blurring. Previously you have noticed she has had attendances with paraesthesia in her leg and weakness in her hand. These all resolved fully on their own. On examination you note she is unable to adduct her right eye and has nystagmus on abducting her left. She has prolonged visual evoked potentials. An MRI is performed and showed white matter lesions. What is the most likely diagnosis?

1- Metastases

2- Syringomyelia

3- Peripheral Neuropathy

4- Lacunar Infarcts

**5- Multiple sclerosis**

Q1365. In which of the following conditions is autonomic neuropathy least likely to occur?

1- Syringomyelia

**2- Myasthenia gravis**

3- Diabetes Mellitus

4- Amyloidosis

5- Parkinsons

Q1366. What pathological abnormalities is found in Parkinsons disease?

1- Contrast Enhancing Lesions

2- Lesions in White matter

3- Neurofibrillary tangles

4- Mallory bodies

**5- Lewy bodies**

Q1367. What is most indicative of sciatic nerve damage?

1- Decreased sensation on medial aspect of leg

2- Absent knee tendon jerk

**3- Foot drop**

4- Unable to flex hip

5- Plantars Upgoing

Q1368. How would you differentiate subacute degeneration of the cord from Multiple Sclerosis?

1- Hyperreflexia of the knee

2- Visual symptoms

**3- Absent ankle jerk**

4- Ataxia

5- Blood tests

Q1369. Which of the following statements is associated with Chronic Subdural Haematoma?

**1- Often caused by a minor Head Injury**

2- Associated with Hydrocephalus

3- Headache is a late feature

4- Bitemporal Hemianopia

5- Bilateral Leg weakness

Q1370. What is the most likely feature to indicate cavernous sinus thrombosis?

**1- Hyperaesthesia of forehead**

2- Sensory loss in lower face

3- Dysphagia

4- Visual Acuity greatly reduced

5- Photophobia

Q1371. What would most likely suggest Myasthenia Gravis in a patient with double vision?

1- Relative afferent pupillary reflex

**2- Thymoma**

3- Unilateral facial paraesthesia

4- Exophthalmos

5- Associated leg weakness

Q1372. A 50 year old female is having recurrent falls. She feels this is secondary to weak legs and finds it difficulty to walk up stairs or get up from a chair. He has no significant PMH except he is on ramipril for hypertension. On examination he has 4/5 power in knee extension bilaterally and in hand grip. There is nil else of note. What is the most likely diagnosis?

1- Cervical cord compression

2- Multiple Sclerosis

**3- Inclusion body myositis**

4- Subacute degeneration of the Cord

5- Limb Girdle muscular dystrophy

Q1373. A 29 year old male presents to his GP with left sided facial weakness. He has been unwell for several weeks following return from a holiday with headache, pyrexia and joint pains. He has a left facial palsy and a Lumbar Puncture is carried out which showed increased WCC ( greater than 90% polymorph s) , increased protein content and glucose 50 percent that of serum. What is the likely diagnosis?

1- Viral Meningitis

2- Bells palsy

3- Guillain Barre syndrome

**4- Borrelia burgdorferi meningitis**

5- Sarcoidosis

Q1374. A 70 year old female presents with indigestion. On further questioning she has paraesthesia in her feet and has noticed she has been falling increasingly frequently. On examination she has 4/5 power in her legs, predominantly in the flexors, hyperreflexic knee reflexes and absent ankle reflexes. What is the most likely diagnosis?

1- Guillain Barre Syndrome

2- Stroke

3- Cauda Equina Syndrome

4- Spinal cord compression secondary to metastases

**5- Subacute combined degeneration of the cord**

Q1375. A 54 year old male has been referred as there has been a change in his personality over the last few years. He has been sexually inappropriate, forgetful and unable to plan. There is nil of note on examination. What is the most likely diagnosis?

1- New Variant CJD

**2- Frontotemporal dementia**

3- Normal pressure hydrocephalus

4- Frontal Tumour

5- Alzheimers disease

Q1376. A 22 year old male presents with left shoulder pain which is severe and stabbing in nature. He also notices some weakness when lifting things high. On examination there is muscle wasting at the shoulder and 4/5 power in the extensors. There is absence of the biceps and supinator reflexes. There is reduction in sensation in the lateral aspect of the arm. There is nil else of note on examination. Which of the following in the most likely diagnosis?

1- Cervical syrinx

2- Cervical Disc Prolapse

3- MND

4- Thoracic Outlet Syndrome

**5- Idiopathic brachial plexopathy**

Q1377. A 32 year old female presents to her GP with right facial weakness. She has had a 3 day history of right ear pain and has noticed an odd taste in her mouth. On examination there is right facial nerve paralysis including the forehead, a vesicular rash in the right auditory canal and diminished taste sensation on the tongue. There is nil else of note. What is the most likely diagnosis?

1- Parotid tumour

2- Bells palsy

3- Stroke

**4- Ramsay Hunt syndrome**

5- Cerbellopontine tumour

Q1378. A 65 year old gentleman presents to his GP with bilateral leg pain. This develops after he has walked for about ten minutes, where he feels pain and burning. He also feels that his legs are weak. The pain is only relieved once he sits down for a few minutes. He finds the pain is worse when walking uphill. On examination he has palpable peripheral pulses. He has a past medical history of osteoarthritis. What is the most likely diagnosis?

1- Disc Prolapse

2- Polymyositis

**3- Spinal stenosis**

4- Meralgia Paraesthetica

5- Peripheral vascular disease

Q1379. A 38 year old obese woman presents with headache. These are worse in the morning and last thing at night and on coughing. There are relieved on standing. There is evidence of bilateral papilloedema on fundoscopy. A CT head shows no abnormalities. Which of the following is the most likely diagnosis?

**1- Idiopathic intracranial hypertension**

2- Space occupying lesion

3- Hydrocephalus

4- Multiple sclerosis

5- Subarachnoid haemorrhage

Q1380. A 20 year old female with a history of narcolepsy is having a fight with her boyfriend when she suddenly falls to the ground. She states that she just felt her whole body was weak. She was fully conscious during the whole episode and it lasted for about 30 seconds. What is the most likely diagnosis?

1- Complex partial seizure

2- Vasovagal syncope

**3- Cataplexy**

4- Narcolepsy

5- Tonic clonic seizure

Q1381. A 28 year old gentleman had an URTI. Approximately 2 weeks later he presented to A and E with a distal weakness. On examination he is pyrexial and slightly tachycardic with a normal blood pressure but is tachypneoic. Neurological examination reveals 4/5 power in all limbs distally and weakness is his facial muscles. There is no sensation loss. Reflexes are absent. Given the most likely diagnosis, what treatment would be most useful?

1- Nerve conduction studies

**2- IV Immunoglobulin**

3- Gabapentin

4- IV methylprednisolone

5- Nil specific

Q1382. A 74 year old male with Parkinson's disease has developed cognitive decline. He is diagnosed with Dementia related to his Parkinson's disease. Which of the following drugs is the most useful in it's management?

1- Donepezil

2- Memantine

**3- Rivastigmine**

4- Pyridostigmine

5- Galantamine

Q1383. A 68 year old female with Parkinson's Disease. She is now having episodes of severe dyskinesia which rapidly changes to immobility within minutes. She is currently on co-careldopa. Which of the following is the most appropriate step?

1- Increase dose of Co-careldopa

**2- Addition of Ropinirole**

3- Addition of Cabergoline

4- Addition of selegiline

5- Reduce dose of Co-careldopa

Q1384. A 71 year old male with parkinson's disease has recently had his co-careldopa dose increased as his GP thought there had been a worsening of his symptoms. He is also on ropinirole. He is then referred as things have gotten worse since his medication has been increased. He appears to be suffering from dyskinesia. Which of the following is the most appropriate action you would take?

1- Reduce co-careldopa and switch ropinirole to pramipexole

**2- Reduce co-careldopa and maximise dopamine agonist**

3- Add in Selegiline

4- Add in Amantadine

5- Stop co-careldopa and maximise dopamine agonist

Q1385. A 38 year old female presents to her GP with recurrent occipital headaches and neck pain. These are aggravated by coughing. She has been suffering from them for years. She also sometimes complains of double vision and photophobia. She has no other symptoms. On examination the only abnormal finding is downbeat nystagmus. An MRI is performed. What would you expect to see on an MRI?

1- Nil

2- Hydrocephalus

3- Syringomyelia

4- Herniation of lower brainstem through foramen magnum

**5- Herniation of cerebellar tonsils through foramen magnum**

Q1386. A 44 year old female presents with a headache. This has been present for a couple of days and has been gradually gettting worse. It is mainly localised behind and around the eye. She states that her right eye is also painful. She is otherwise fit and well although she gives a history of having had 4 miscarriages. On examination there is evidence of chemosis, proptosis and periorbital oedema of the right eye. There is also a lateral gaze palsy. Which of the following is the most likely diagnosis?

1- Acute Glaucoma

2- Subarachnoid Haemorrhage

**3- Cavernous Sinus Thrombosis**

4- Cluster Headache

5- Intracerebral Tumour

Q1387. A 28 year old male presents with severe headache. He has had several episodes of severe pain around his right eye over the last week sometimes occurring up to 5 times a day. It has woken him from sleep. He describes the pain as severe and stabbing and it is localised around and behind the right eye. His right eye also waters during the episodes and he suffers from rhinorrhoea through the episodes. The episodes last for about an hour. Given the most likely diagnosis which agent would be most useful for the prophylaxis?

**1- Verapamil**

2- Oxygen therapy

3- Sumatriptan

4- Sodium Valproate

5- Propanolol

Q1388. A 55 year old male presents with left sided facial drop and left arm weakness. A CT Head confirms a right sided infarct. His blood pressure is 150/90 mmHg. You note that he is very tall and slim. He has very long arms and fingers. He is normally fit and well and is a non smoker. What is the most likely cause of his stroke?

**1- Emboli**

2- Intracranial haemorrhage

3- Atherosclerotic Disease

4- Hypertension

5- Intracranial Aneurysm rupture

Q1389. A 50 year old gentleman who is a heavy smoker presents with weakness. He has noticed it increasingly difficulty to get up from chairs and when going up stairs initially but this improves as he moves. He has been dizzy on standing and has had significant weight loss and a chronic cough. On examination he has symmetrical proximal weakness and diminished tendon reflexes which improves on repeated muscular contraction. He has normal cranial nerve examination. Which of the following is the most likely diagnosis?

1- Myasthenia Gravis

2- Polymyalgia Rheumatica

3- Peripheral Neuropathy

**4- Lambert Eaton syndrome**

5- Polymyositis

Q1390. A 52 year old female presents after noticing for some months both eyelids drooping. She is complaining of double vision. She is also complaining of difficulty climbing stairs,getting up from chairs and brushing her hair. She states this is worse after exertion and at the end of the day. On examination the patient can only look up for a few seconds before the eyes start to drift back down. There is evidence of bilateral ptosis and her face has a mask like expression. There is evidence of proximal muscle weakness but sensation and reflexes are normal.

1- Hypothyroidism

2- Multiple Sclerosis

**3- Myasthenia Gravis**

4- Chronic Fatigue syndrome

5- Amyotrophic lateral sclerosis

Q1391. A 35 year old female presents with bilateral ptosis and diplopia and difficulty in climbing stairs and getting up from chairs. She has recently been commenced on propanolol and she feels her symptoms have worsened. She is found to have anti-striated muscle antibody. Which of the following should be investigated for?

1- Small cell lung cancer

2- Squamous Cell lung cancer

3- Anti thyroperoxidase antibodies

4- Goitre

**5- Thymoma**

Q1392. A 63 year old female has sudden onset bilateral weakness in her legs and urinary retention. She has a PMH of hypertension and is a heavy smoker. On examination she has 4/5 weakness in both legs and has pain and temperature loss from the level of the umbilicus over all dermatomes of her legs. Other sensory modalities are unaffected. Which of the following is the likely cause?

1- Stroke

**2- Anterior spinal artery occlusion**

3- Cauda Equina Syndrome

4- Syringomyelia

5- Spinal tumour

Q1393. A 74 year old man is brought to A+E with feeling generally unwell, pyrexia, low back pain, bilateral leg weakness and urinary retention. He has a history of Type 2 Diabetes Mellitus and Hypertension. Which of the following is the most likely diagnosis?

1- Spinal Tumour

**2- Spinal epidural abscess**

3- Stroke

4- Lumbar Disc Prolapse

5- Anterior spinal artery thrombosis

Q1394. A 37 year old male with HIV is brought to A+E with a 6 week history of behavioural and personality change. On examination there is evidence of conjugate gaze abnormality and ataxia. There is also left arm weakness. An MRI is performed and reveals on T2 weighted images multiple bilateral hyperintense lesions predominantly in periventricular and subcortical white matter. What is the most likely diagnosis?

**1- Progressive Multifocal Leucoencephalopathy**

2- CMV Encephalitis

3- Cryptococcosis

4- Cerebral Toxoplasmosis

5- Multiple Sclerosis

Q1395. A 37 year old male with HIV is brought to A+E with a 6 week history of behavioural and personality change. On examination there is evidence of conjugate gaze abnormality and ataxia. There is also left arm weakness. An MRI is performed and reveals on T2 weighted images multiple bilateral hyperintense lesions predominantly in periventricular and subcortical white matter. What is the most likely causative agent?

1- Ischaemia

2- Cryptococcus Neoformans

3- Cytomegalovirus

4- Toxoplasma Gondii

**5- John Cunningham Virus**

Q1396. A 69 year old female presents with arm weakness, left worse than right. She has also had some difficulty walking. She has had trouble intermittently with neck pain for many years. On examination there is evidence of 4/5 power in the left arm with evidence of wasting. There is loss of the supinator, biceps and triceps reflex. There is evidence of a spastic gait, increased tone, hyperreflexia and upgoing plantars. What is the most likely diagnosis?

1- Cervical Radiculopathy

2- Motor Neurone Disease

3- Syringomyelia

**4- Cervical Myelopathy**

5- Multiple Sclerosis

Q1397. A 68 year old female presents as she has been having trouble sleeping for several months. She states in the evening when she is sitting watching TV or during the night which wakes her from her sleep, she suffers odd sensations in her legs and has the urge to move them which relieves the sensation for a short while. She is otherwise in good health and bloods are normal. Which of the following is the most likely diagnosis?

1- Leg cramps

2- Intermittent Claudication

3- Peripheral Neuropathy

**4- Restless Leg Syndrome**

5- Parkinsonism

Q1398. A 68 year old female presents as she has been having trouble sleeping for several months. She states in the evening when she is sitting watching TV or during the night which wakes her from her sleep, she suffers odd sensations in her legs and has the urge to move them which relieves the sensation for a short while. She is otherwise in good health and bloods are normal. Which of the following is the most appropriate management option?

1- Cabergoline

2- Gabapentin

3- Diazepam

**4- Ropinirole**

5- Quinine Sulphate

Q1399. A 68 year old female presents as she has been having trouble sleeping for several months. She states in the evening when she is sitting watching TV or during the night which wakes her from her sleep, she suffers odd sensations in her legs and has the urge to move them which relieves the sensation for a short while. She is otherwise in good health. What might you commonly find on bloods?

1- Deranged LFTs

**2- Iron Deficiency**

3- Hypokalaemia

4- Hypocalcaemia

5- Low TSH and elevated free T4

Q1400. A 52 year old male presents with weakness in his arms. He has noticed he has been dropping things and his hands appeared thinned. He has also had some difficulty walking. On examination there is evidence of wasting in his hands and biceps with evidence of fasciculation. His biceps and supinator reflexes are brisk. Sensation is normal. In the lower limbs there is evidence of a spastic gait and his plantars are upgoing. Which of the following is the most likely diagnosis?

1- Syringomyelia

2- Inclusion Body Myositis

3- Cervical myelopathy

4- Multiple Sclerosis

**5- Amyotrophic lateral sclerosis**

Q1401. In motor neurone disease, where is the site of the lesion?

1- White matter of spinal cord

2- Schwann cells

**3- Anterior horn cells of spinal cord**

4- Corticospinal tract

5- Motor axons

Q1402. An 79 year old female presents to her GP with falls. On examination there is evidence of a resting tremor in her hands, right worse than left. She has difficulty initiating movement and you notice reduced facial expression. Her tone is increased in her arms. She has no PMH of note and is only on ramipril for hypertension. Which of the following is the most likely diagnosis?

1- Benign essential tremor

2- Multi System Atrophy

3- Lewy body Disease

**4- Idiopathic Parkinsons disease**

5- Stroke

Q1403. A 68 year old female is brought to her GP by her husband. He states she has become very forgetful of late and is unable to concentrate. He has also noticed over the last few months that she is incontinent of urine and has been walking in an unusual way. On examination there is evidence of gait apraxia and her reflexes are brisk. What is the most likely diagnosis?

1- Parkinsons Disease

2- Lewy Body Dementia

**3- Normal Pressure Hydrocephalus**

4- Picks Disease

5- Alzheimers Disease

Q1404. A 24 year old patient presents to her GP. She is complaining of flashing lights in her left eye. She is also complaining of tingling and numbness in her right hand which then spread up to her arm and face. This has occurred twice previously and was followed by a severe headache affecting one side of her head with the only relief being lying in a dark room. Apart from NSAIDs, which of the following is also useful for the acute management?

1- Propanolol

2- Amitriptyline

3- Ergometrine

4- Paracetamol

**5- Triptans**

Q1405. A 78 year old female suffers from a stroke. She has now developed sudden, violent swinging of her right arm. What is the most likely cause?

1- Athetosis

**2- Hemiballismus**

3- Tardive dyskinesia

4- Chorea

5- Seizure

Q1406. If there is evidence of a right superior homonymous quadrantanopia, where is the likely site of the lesion?

**1- Left temporal lobe**

2- Left parietal lobe

3- Left occipital lobe

4- Right optic nerve

5- Optic chiasm

Q1407. A 32 year old female has a three day history of severe occipital headache and neck pain following a minor injury. She is then brought to A+E following development of pain and numbness on the right side of her face, dysarthria, hoarseness, dysphagia and vertigo. There is left sided loss of pain and temperature sensation and weakness. She is ataxic and there is evidence of nystagmus and a right sided horners syndrome. What is the most likely diagnosis?

1- Haemorrhagic stroke

2- Cervical disc prolapse

3- Ischaemic stroke

**4- Vertebral artery dissection**

5- Subarachnoid haemorrhage

Q1408. A 29 year old male presents to his GP after having recurrent episodes whereby he awakes after just falling to sleep with a feeling of being unable to move. He has been feeling down and has been increasingly sleepy throughout the day. He has been very stressed at work. What is the likely diagnosis?

1- Depression

2- Nocturnal seizures

3- Adjustment disorder

**4- Narcolepsy**

5- Nightmares

Q1409. A 60 year old presents with a burning feeling the anterolateral aspect of her left thigh. he has a PMH of Type 2 Diabetes Mellitus, Stroke and Atrial Fibrillation. On examination her left leg is hypertonic and she is hyperreflexic but power is 5/5. She has a reduced pain sensation over the anterolateral aspect of her right thigh. Which of the following is the most likely diagnosis?

1- Disc Prolapse

**2- Meralgia Paraesthetica**

3- Embolus to spinal artery

4- Multiple Sclerosis

5- Diabetic femoral amyotrophy

Q1410. A 24 year old female presents witnessed by a family member where she suddenly becomes unaware of her surroundings, is unresponsive and performs unusual lip smacking. She states she does not rememeber these attacks however remenbers shortly before it a feeling of deja vue. Given the most likely diagnosis, what treatment should be commenced?

1- Gabapentin

2- Ethosuximide

3- Sodium valproate

**4- Carbamazepine**

5- Phenytoin

Q1411. A 25 year old male who is a personal trainer presents to his GP with cramps in his legs. He states he notices the muscles in his calves twitching. He notices these get worse after excercise and when he is tired. These symptoms have been present for several months and not progressed. He is otherwise fit and well. On examination there is evidence of fasciculations in his calves however the rest of his neurological examination is normal. What is the most likely diagnosis?

1- Biochemical Abnormality

2- Becker's Muscular Dystrophy

**3- Benign cramp fasciculation syndrome**

4- Motor Neurone Disease

5- Inclusion Body Myositis

Q1412. A 35 year old female presents with a severe throbbing headache. She has a past medical history of migraine. She is confused. On examination there is evidence of a 4/5 power on left side and she is hyperreflexic on the left. She has recently been unwell with sinusitis. A CT is performed and shows no space occupying lesion. Which of the following is the most likely diagnosis?

1- Cerebral metastases

**2- Cerebral Venous thrombosis**

3- Migraine

4- Intracranial Abscess

5- Stroke

Q1413. A patient who has suffered from a parietal lobe infarct is having difficulty reading. Which of the following is the most likely explanation?

1- Agnosia

**2- Inferior Homonymous Quadrantanopia**

3- Superior Homonymous Quadrantanopia

4- Neglect

5- Sensory loss

Q1414. A 48 year old male who is a heavy smoker presents to his GP as he has noticed his right eyelid is drooping. On examination there is ptosis of the right eye, right pupillary constriction and right sided anhidrosis. There are no other signs and his only other complaint is that of a smoker's cough. Which of the following investigations should initially be performed to establish the diagnosis?

**1- Chest Xray**

2- CT Chest, Abdomen and Pelvis

3- MRI spine

4- Lumbar Puncture

5- CT Head

Q1415. A 63 year old man is found by his daughter confused. He is unsure of where he is and what year it is. He then returned to normal after an hour . There is nil of note in examination and his bloods are normal. He has no PMH. What is the likely diagnosis?

1- Delirium

2- Partial Seizure

3- TIA

**4- Transient global amnesia**

5- Chronic subdural haematoma

Q1416. A 30 year old male presents to A+E with a sudden onset headache, the worst of his life. This is associated with neck stiffness, vomiting and photophobia. On examination his left pupil is not reactive to light and he can only abduct his left eye. The rest of he examination is unremarkable. He is not septic and no evidence of a rash. Which of the following is the most likely diagnosis?

**1- Bleed from a posterior communicating artery aneurysm**

2- Meningioma

3- Bleed from an anterior communicating artery aneurysm

4- Meningitis

5- Sagittal Sinus Thrombosis

Q1417. A patient is brought to A and E with status epilepticus. He is known to be epileptic on Keppra. He has been given PR diazepam with no avail and continues to seize. How would you manage this patient?

**1- IV Phenytoin**

2- Propofol

3- IV Magnesium

4- IV Diazepam

5- IV Lorazepam

Q1418. A 47 year old male has been referred due to a 2 year history of memory loss and speech difficulties. He is disinhibited and emotionally flat. He is found to have primitive reflexes. Which of the following is the most likely diagnosis?

1- Wilsons disease

2- Creutzfeldt Jakob disease

**3- Picks disease**

4- Alzheimers disease

5- Lewy Body Dementia

Q1419. An 81 year old female has become increasingly forgetful over the last 9 months. There is nil to note on examination. Which of the following features suggests early Alzheimers disease?

1- Disorientation in space and time

2- Drowsiness

3- Hallucination

4- Disinhibition

**5- Word finding difficulties**

Q1420. A 52 year old gentleman has weakness of the long flexors of the left thumb and index finger, and is unable to pronate his forearm. Which nerve has been affected?

1- Radial nerve

**2- Anterior interosseous nerve**

3- Brachial Plexus

4- Ulnar nerve

5- Posterior interosseous nerve

Q1421. A 70 year old is referred with wasting of both thenar and hypothenar eminences. On examination there is difficulty abducting and adducting of the thumb and fingers. There is loss of sensation in the ulnar distribution. What nerve has been affected?

1- C8 nerve root

2- T1 nerve root

3- Radial Nerve

4- Ulnar Nerve

**5- Lower cord of the brachial plexus**

Q1422. What is the most likely structure damage if there is foot drop with weakness of ankle dorsiflexion and eversion?

1- Femoral Nerve

2- Sciatic nerve

3- Tibial nerve

4- L5 S1 nerve root

**5- Common peroneal nerve**

Q1423. What is indicative of a parietal lesion?

**1- Visual inattention**

2- Personality Change

3- Hallucinations

4- Superior homonymous Quadrantanopia

5- Expressive Dysphasia

Q1424. A patient presents with visual disturbance. On examination there is right inferior quadrantanopia and an abnormal optokinetic response when you ask her to look at your finger on the left. Where is the lesion likely to be?

1- Left Occipital Lobe

**2- Left parietal lobe**

3- Right Optic nerve

4- Left Optic nerve

5- Optic chiasm

Q1425. A 67 year old male presents to her GP with two months of back pain. He is given analgesia however one week later he is admitted to A+E with bilateral leg weakness and urinary retention. He has recently lost a significant amount of weight. He is a heavy smoker. On examination his arms are hyperreflexic. He has 4/5 in hip and knee flexors. He has upgoing plantars and is hyperreflexic and has reduced sensation throughout all dermatomes of the lower limbs. He has normal anal sphincter tone, enlarged prostate and on passing a catheter for his retention he has reduced sensation. What investigation would you order?

1- MRI Lumbar spine

2- Lumbar Xray

3- CT Head

4- CT Lumbar spine

**5- MRI whole spine**

Q1426. A 25 year old female presents with a one week history left eye ache and visual blurring. She has a left relative afferent pupillary reflex and the optic nerve appears swollen. She has no PMH and is only taking the COC. Which of the following is the most likely diagnosis?

1- Acute closed angle glaucoma

**2- Optic Neuritis secondary to demyelination**

3- Macular Degeneration

4- Conjunctivitis

5- Optic Neuritis secondary to ischaemia

Q1427. A 70 year old female presents to the GP with right sided headaches and sudden onset right sided visual loss. She has noticed her scalp has been tender when she has been brushing her hair. What is the most likely diagnosis?

1- Amaurosis fugax

2- Vitreous haemorrhage

3- Optic Neuritis secondary to demyelination

**4- Optic Neuritis secondary to ischaemia**

5- Macular Degeneration

Q1428. A 30 year old male is having recurrent headaches. He describes these as pain around the eye with the eye watering. These are very severe and can last for up to 2 hours and can occur several times a day for a couple of weeks before settling. What is the likely diagnosis?

1- Glaucoma

2- Giant Cell Arteritis

3- Migraine

4- Trigeminal Neuralgia

**5- Cluster headaches**

Q1429. A 24 year old female has a history of migraines. On a visit to her optician who notes that one of her pupils is larger than the other and does not react to light. There is no abnormal findings in eye movement, acuity or fundoscopy. Which of the following explains her pupillary findings?

1- Third cranial nerve palsy

2- Brain Tumour

**3- Holmes Adie pupil**

4- Horners Syndrome

5- Argyll Robertson pupil

Q1430. A 30 year old female presents to her GP with recurrent headaches. She describes this as splitting the head. It is associated with weakness in his right arm and a heavy feeling. It is preceded by visual disturbance. These symptoms then fully resolve and the only abnormal finding is a small right pupil. Which of the following is the most likely diagnosis?

1- Glaucoma

2- Horners Syndrome

3- Brain Tumour

**4- Migraine**

5- Cluster Headache

Q1431. A 74 year old man with a history of alcohol excess is brought to A and E with fluctuating confusion. He had a fall some weeks ago. He has been feeling lethargic. There is nil of note on examination and his bloods and CXR are normal. Which diagnosis should be considered?

1- Vascular Dementia

2- Alzheimers disease

**3- Subdural haematoma**

4- UTI

5- Transient ischaemic attack

Q1432. A 35 year old female with a history of migraine presents to A and E with a sudden onset headache, neck stiffness and brief loss of consciousness. There is nil of note on examination. What would you do next?

1- CT Head if normal discharged

2- CT Angiography

**3- CT Head if normal lumbar puncture 12 hours after onset of headache**

4- Lumbar Puncture

5- Prescribed a Triptan

Q1433. A 43 year old female present to a GP with a tremor in her hand. It is not present at rest but is accentuated when she is carrying out an action. Her father had a similar problem. She is otherwise well and there is nil of note in examination. Which of the following is the likely diagnosis?

1- Vascular Dementia

**2- Benign essential tremor**

3- Anxiety

4- Huntingtons Chorea

5- Parkinsons Disease

Q1434. A 32 year old female presents with acute painful reduction of vision in her right eye and double vision. There was a previous investigation of paraesthesia of the leg and transverse myelitis which both self resolved. A lumbar puncture reveals oligoclonal bands and an MRI reveals plaques in the periventricular region, brainstem and cervical cord. There is a delay in visual evoked response. Which treatment can be used to try to reduce relapses long term?

1- Methylprednisolone

2- Plasmapheresis

3- Nil

4- Prednisolone

**5- Interferon beta**

Q1435. A 65 year old male presents with a shuffling gait, micrographia, feeling stiff and slow movement. He is also having visual hallucinations and has become very forgetful and confused at times. On examination he has cog wheel rigidity in all limbs, a shuffling gait and impaired postural reflexes. His MMSE is 22/30. What is the most likely diagnosis?

1- Alzheimers disease

2- Vascular dementia

3- Multi system atrophy

4- Parkinsons Disease

**5- Lewy Body Dementia**

Q1436. Which of the following is most useful in differentiating progressive supranuclear palsy from Parkinsons disease?

**1- Difficulty looking up and down**

2- Lack of tremor

3- Severity of symptoms

4- Falls

5- Dementia

Q1437. A 45 year old female presents to her GP as she is worried about a tremor in her left hand that is worse when she is doing things. Her mother had a similar tremor. The rest of her examination is unremarkable. She is commenced on propanolol however cannot tolerate the side effects. What is an alternative management?

1- Procyclidine

2- l-Dopa

3- Reassure

**4- Primidone**

5- Amantadine

Q1438. A 29 year old gentleman presents with weakness in the left leg. On examination there is loss of proprioception and gross touch in the left leg. In the right leg there is loss of pain and temperature sensation. Which of the following is the likely diagnosis?

**1- Brown Sequard syndrome**

2- Guillain Barre syndrome

3- Peripheral Neuropathy

4- L4 L5 disc Prolapse

5- Functional Disorder

Q1439. What blood vessel if thrombosed would lead to a Right sided Horners Syndrome and intention tremor and right sided facial loss of pain and temperature sensation and left sided body pain and temperature loss and weakness?

**1- Right posterior inferior cerebellar artery**

2- Right posterior Cerebral artery

3- Left middle cerebral artery

4- Right anterior cerebral artery

5- Vertebral artery

Q1440. A 22 year old patient is brought to A+E. She was complaining of a headache, malaise, fever and nausea and vomiting one day previously and then suddenly dropped her conscious level. She is dysphasic and has a right hemiparesis. She then develops a focal seizure. A CT shows abnormalities in temporal lobes, with hypodense areas being present. A lumbar puncture is performed and reveals a slightly high protein, normal glucose and raised mononuclear cell levels. What is the most likely diagnosis?

**1- Herpes Simplex Encephalitis**

2- Intracranial abscess

3- Intracranial haemorrhage

4- Meningitis

5- Intracranial tumour

Q1441. Which of the following is most suggestive of idiopathic Parkinson's disease rather than a Parkinsonism plus syndrome?

1- Bradykinesia

**2- Asymmetrical Symptoms**

3- Early onset postural hypotension

4- Early onset dementia

5- Ocular signs

Q1442. A 73 year old female is brought to A+E after being found unconscious. On examination she has a GCS of 3 with evidence of quadraplegia, facial weakness, bilateral conjugate gaze paralysis and pin point pupils. What is the most likely diagnosis?

1- Pontine infarct

2- Haemorrhage within internal capsule

3- Cerebral haemorrhage

**4- Pontine Haemorrhage**

5- Midbrain infarct

Q1443. A 35 year old gentleman, previously well, collapses and begins to shake violently. His eyes are closed and his head is shaking from side to side. When a witness checks on him, his arms begin to flail more violently. He then gradually stops shaking. His eyes open and he is unaware of what happens but has not sustained any injury and has not been incontinent. What is the most likely diagnosis?

1- Vasovagal episode

2- Epileptic seizure

**3- Psychogenic non-epileptic seizure**

4- Stroke

5- Cataplexy

Q1444. A 64 year old gentleman presents with lower back pain following a recent fall. He has a history of osteoarthritis. He is also complaining of some weakness in his leg. On examination there is weakness of dorsi flexion of the ankle and extension of the big toe. Knee and ankle jerks are present. He also has reduced sensation over the lateral calf and dorsum of the foot. Which of the following is the predominant root involved?

1- L3

**2- L5**

3- S2-S4

4- S1

5- L4

Q1445. A 72 year old with hypertension collapses. She is brought to A+E, her husband said she was complaining of a severe headache and had vomited just before she collapsed. On examination she has no verbal response and she is not opening her eyes to pain. She has a dense right hemiparesis and her right plantar reflex is upgoing. She begins to seize. What is the most likely diagnosis?

1- Ischaemic stroke

2- Meningitis

3- Subdural haematoma

4- Encephalitis

**5- Intracranial haemorrhage**

Q1446. A 58 year old gentleman who is known to drink excessively, presents with a 2 week history of a progressively worsening headache. This has been associated with nausea and vomiting. You notice he appears drowsy and forgetful and that he has a healing cut and bruising on his head. He states he has been told by his family that he is sleeping more than usual. On examination there is nil signs of meningism but you notice a 4/5 power on the left side. Which of the following is the most appropriate step in management?

1- IV antibiotics and lumbar puncture

2- CT head and lumbar puncture

**3- CT head and neurosurgical referral**

4- Analgesia

5- Antiemetic

Q1447. A 62 year old female with a long history of inflammatory bowel disease and type 1 diabetes mellitus presents with numbness and tingling of his feet. On examination there is loss of joint position and vibration sense and loss of pin prick sensation distally. He is hyperreflexic at the knees, absent ankle reflexes and extensor plantars. Which of the following is the most likely diagnosis?

1- Multiple Sclerosis

2- Spinal tumour

3- Diabetic Neuropathy

**4- Subacute combined degeneration of the cord**

5- Neurosyphilis

Q1448. A 62 year old male has had several months history of headache associated with nausea and vomiting. He is then admitted to hospital following a generalised tonic clonic seizure. A CT is performed and reveals evidence of a lesion in the left frontal lobe with a degree of midline shift and some cerebral oedema. Which of the following should be given?

1- IV Phenytoin

**2- IV Dexamethasone**

3- IV Lorazepam

4- IV Aciclovir

5- IV cefotaxime

Q1449. A 38 year old male presents to his GP with his partner. She states that he has become restless at night over the last year with violent outbursts during the night. He has on occasion kicked or punched his partner whilst he appears to be sleeping or gets up and runs from the room or screams during the night. She states he appears to be acting out his dreams. Which of the following is the patient at increased risk of developing in the future?

1- Schizophrenia

2- Vascular dementia

3- Epilepsy

**4- Parkinson's Disease**

5- Obstructive sleep apnoea

Q1450. A patient with long standing Rheumatoid arthritis presents with features of mononeuritis multiplex. There is also evidence of nail fold infarcts. Bloods reveal an elevated ESR and positive pANCA. Which of the following is the most likely cause of these clinical findings?

1- AL Amyloidosis

**2- Rheumatoid Vasculitis**

3- Diabetes

4- Wegener's Granulomatosis

5- AA amyloidosis

Q1451. A 58 year old gentleman presents with weakness in his hands. He states that he has noticed his hands feeling weak and has difficulty opening his hands after he makes a fist or shakes a persons hand. He has also noticed his eyelids drooping and difficulty chewing. He is also complaining of weakness in his legs. On examination there is evidence of early frontal balding and wasting of the temporalis muscle. He has facial weakness and a mask like appearance. There is evidence of reduced power in his hands and the distal muscles of his legs. Sensation is normal.

1- Duchenne's muscular dystrophy

2- Amyotrophic lateral sclerosis

**3- Dystrophia Myotonica**

4- Myasthenia Gravis

5- Becker's muscular dystrophy

Q1452. A 45 year old female has a history of depression. She has recently had her anti depressant dose increased. She is brought to A+E as she has developed a tremor, diarrhoea and feels restless and agitated. On examination she appears restless and she is sweating excessively. She is tachycardic and hypertensive with a temperature of 40. Neurological examination reveals clonus, hyperreflexia, hypertonicity and her pupils are dilated. Which of the following is the most likely diagnosis?

1- Serotonin withdrawal

2- Encephalitis

3- Malignant hyperthermia

4- Neuroleptic malignant syndrome

**5- Serotonin Syndrome**

Q1453. A 65 year old male presents with increasing deafness in his left ear. He is also complaining of a pulsatile "ringing in his ear" and a feeling of fullness in the ear. He has also noticed his voice becoming hoarse and difficulty swallowing. There is evidence of palatal weakness on examination and a conductive hearing loss is confirmed. Which of the following is the most likely diagnosis?

1- Cholesteatoma

2- Meningioma

**3- Glomus Jugulare tumour**

4- Acoustic Neuroma

5- Chronic Otitis Media

Q1454. An 18 year old girl presents with dizziness and vertigo. She found it very difficult to balance and complained of "ringing" in her ears and slurred speech. She also noticed double vision and tingling in both her arms. These symptoms resolved and she then had a sudden severe headache which was one sided and this was associated with several episodes of vomiting. On examination there was no neurological abnormalities and fundoscopy was normal. There was no signs of meningism and she is apyrexial. Which of the following is the most likely diagnosis?

1- Stroke

2- Meningitis

3- Subarachnoid Haemorrhage

4- Space occupying lesion

**5- Basilar Migraine**

Q1455. A 45 year old male who has a history of epilepsy is brought to A+E. He is suffering from nausea, vomiting and he is unsteady on his feet. He appears agitated. He cannot recall his medication. He does not drink any alcohol. On examination there is evidence of ataxia, dysarthria, abnormal gait and fine, rapid nystagmus on lateral gaze. There is no evidence of meningism and bloods are normal. His heart rate is 55 bpm. Which of the following is the most likely diagnosis?

1- Meningitis

2- Wernicke's Encephalopathy

3- Carbamazepine toxicity

**4- Phenytoin toxicity**

5- Encephalitis

Q1456. A 65 year old male is brought to A+E as he is drowsy. He is confused and eyes are opening to speech. He drinks alcohol excessively. You notice a laceration on his head. A CT head is performed and there is evidence of a right sided crescent shaped extraaxial collection with increased attenuation. Which of the following is the most likely diagnosis?

**1- Acute Subdural Haematoma**

2- Chronic Subdural Haematoma

3- Subarachnoid Haemorrhage

4- Extradural Haemorrhage

5- Evolving Stroke

Q1457. A 70 year old female with ischaemic heart disease and hypertension presents with falls. She states that she can be standing or walking when she suddenly falls to the ground as she feels her legs give way. She does not lose consciousness and she has no presyncopal symptoms. She does not complain of chest pain or palpitations. She has noticed on several occasions this occurs after she turns her neck suddenly. Which of the following is the most likely diagnosis?

1- Syncope

2- Epilepsy

**3- Drop Attack**

4- Cardiac arrhythmia

5- Cataplexy

Q1458. A 64 year old gentleman with previous myocardial infarction and ischaemic heart disease presents with several episodes of collapse. He states that these episodes occur without warning and he has no presyncopal symptoms. Witnesses say that he turns pale then suddenly falls to the ground. He then flushes and regains consciousness. On a few occasions he has had a generalized tonic clonic seizure and has been confused for some time after this. Which of the following is the most likely diagnosis?

**1- Stokes-Adams Attacks**

2- Postural Hypotension

3- Epilepsy

4- Drop attacks

5- Carotid Sinus Hypersensitivity

Q1459. A 24 year old female presents witnessed by a family member where she suddenly becomes unaware of her surroundings, is unresponsive and performs unusual lip smacking. She states she does not remember these attacks however remembers shortly before it a feeling of deja vu. What is the most likely diagnosis?

**1- Complex partial seizure**

2- Absence seizure

3- Simple partial seizure

4- Myoclonic seizure

5- Generalised tonic clonic seizure

Q1460. A 78 year old female suffers from a stroke. She has now developed sudden, violent swinging of her right arm. What is the most likely cause?

1- Tardive dyskinesia

2- Chorea

**3- Hemiballismus**

4- Seizure

5- Athetosis

Q1461. A 72 year old female with hypertension and ischaemic heart disease presents with dysarthria and clumsiness of her left hand. On examination she has right sided facial weakness, clearly dysarthric and mild left hand weakness and clumsiness. What area of the brain is most likely affected?

1- Posterior limb internal capsule

2- Ventral pons

**3- Dorsal pons**

4- Anterior limb internal capsule

5- Thalamus

Q1462. A 16 year old boy is brought to the first seizure clinic. He has episodes, most often in the morning, where he goes stiff, collapses to the ground and jerks for a couple of minutes before resolution and he takes about 15 minutes to recover. He occasionally jerks. There is nil of note on examination. Given the likely diagnosis what drug treatment would you commence?

1- Carbamazepine

**2- Sodium valproate**

3- Gabapentin

4- Levetiracetam

5- Phenytoin

Q1463. A 65 year old female attends her GP due to "restless legs". At night or when she is sitting at rest she has the urge to move her legs which is causing extreme irritation. She is otherwise fit and well. Which of the following is useful for the management?

1- Gabapentin

2- Carbamazepine

3- Pergolide

4- Cabergoline

**5- Ropinirole**

Q1464. A 68 year old female is brought to her GP by her husband. He states she has become very forgetful of late and is unable to concentrate. He has also noticed over the last few months that she is incontinent of urine and has been walking in an unusual way. On examination there is evidence of gait apraxia and her reflexes are brisk. A CT is performed and shows ventricular dilatation. Which of the following is a definitive treatment?

1- Donepezil

2- Repeat lumbar punctures

3- Levodopa

4- Acetazolamide

**5- CSF shunt**

Q1465. A 24 year old patient presents to her GP. She is complaining of flashing lights in her left eye. She is also complaining of tingling and numbness in her right hand which then spread up to her arm and face. This has occurred twice previously and was followed by a severe headache affecting one side of her head with the only relief being lying in a dark room. Apart from NSAIDs, which of the following is also useful for the acute management?

**1- Triptans**

2- Paracetamol

3- Propanolol

4- Amitriptyline

5- Ergometrine

Q1466. A 24 year old patient presents to her GP. She is complaining of a severe unilateral headache which has occurred at least twice monthly for the last 6 months. The headache is preceded by flashing lights in her left eye and tingling and numbness in her right hand which then spreads up to her arm and face. She is photophobic with the headache and vomits. She has tried paracetamol, naproxen and aspirin with no relief and she has had to take several days of sickness from work. What is the best management course?

1- Prophylaxis with sodium valproate and sumatriptan for acute attacks

2- CT Head

**3- Prophylaxis with propanolol and sumatriptan for acute attacks**

4- Prophylaxis with Amitriptyline and sumatriptan for acute attacks

5- Addition of opioid analgesia

Q1467. A patient is opening his eyes to pain, has confused speech and is localising to pain. What is his GCS?

1- E2, V3, M4

2- E3, V4, M4

3- E2, V3, M3

4- E2, V4, M5

**5- E3, V5, M6**

# Chapter 9 Ophthalmology

Q1468. A 75 year old gentleman with type 2 diabetes melllitus presents for his retinal screening. On the retinal photograph there is evidence of cotton wool spots and flame haemorrhages. There also appears to be new vessel formation very close to the optic disc. What is the next stage in management?

1- Fenofibrate

2- Insulin

**3- Referral for laser photocoagulation**

4- Referral for fluorescein angiography

5- Optimal glycaemic control

Q1469. A 64 year old male presents with a sudden onset of central vision disturbance. On fundoscopy there is evidence of very small discrete yellow deposits and pale mottled areas. There also appears to be a small focal pale pink yellow elevation at the macula. Which of the following investigations should be performed which will confirm the diagnosis and aid in deciding the management?

1- MRI of eye

2- Slit lamp examination

**3- Fundus fluorescein angiography**

4- Optical coherence tomography

5- Retinal photography

Q1470. Which of the following ocular signs would you find in acne rosacea?

1- Cataract

2- Uveitis

3- Ptosis

**4- Keratitis**

5- Swollen optic disc

Q1471. A 68 year old male with previous history of TIA presents with unilateral painless vision loss. The retina is pale and the macula appears as a cherry red spot. What is the most likely cause of the vision loss?

1- Retinal detachment

2- Vitreous haemorrhage

3- Age related macular degeneration

4- Retinal vein occlusion

**5- Central retinal artery occlusion**

Q1472. A patient with previous history of cold sores presents with a painful right eye. On examination there is evidence of conjuntival injection in the right upper quadrant and this area is exquisitely tender. Fluorescein dye is applied and reveals a dendritic lesion. What is the most likely diagnosis?

1- Bacterial ulcer

2- Foreign body

3- Scleritis

4- Episcleritis

**5- Herpes simplex ulcer**

Q1473. A 9 year old boy is brought to his GP. his mother has noticed him tripping up frequently. he states he has difficulty seeing in the dark. He is otherwise very well. A full neurological examination is performed and is normal. Fundoscopy is performed and reveals mid peripheral bone spicules. Which of the following is the most likely diagnosis?

1- Retinoblastoma

**2- Retinitis Pigmentosa**

3- Glaucoma

4- Alport's Syndrome

5- Usher's Syndrome

Q1474. A 55 year old female who is on methotrexate for rheumatoid arthritis presents to her GP with a painful red right eye. This came on suddenly and her eye is mildly painful and watering. Her vision has not been affected. On examination there is evidence of redness in the right upper quadrant of the right eye and this is tender. Her pupil is normal as is her conjunctivae. Visual acuity is unchanged and eye movements are normal. Which of the following is the most likely diagnosis?

**1- Episcleritis**

2- Conjunctivitis

3- Acute Glaucoma

4- Corneal Abrasion

5- Scleritis

Q1475. A 30-year-old presents to her GP with reduced vision in her left eye. She has previously presented with abnormal sensory changes in her leg which have now resolved. On examination her visual acuity is greatly reduced and there is evdence of a relevant afferent pupil defect. All movements of the eye are very painful. On fundoscopy and neurological examination there is nil of note. What is the most likely diagnosis?

**1- Optic neuritis**

2- Age related macular degeneration

3- Orbital tumour

4- Retinal vein occlusion

5- Thyrotoxicosis

Q1476. A 57 year old male presents to his GP with a sudden onset severe frontal headache associated with nausea and vomiting. He also had pain in his right eye and was complaining of visual blurring. On examination there is no evidence of neck stiffness or focal neurology. The right eye appears red with a ciliary flush and a non reactive mid dilated pupil. Which of the following is the most likely diagnosis?

**1- Acute Closed Angle Glaucoma**

2- Scleritis

3- Anterior Uveitis

4- Conjunctivitis

5- Meningitis

Q1477. On fundoscopy of a patient with type 2 diabetes mellitus, which of the following would cause you to make an urgent referral to ophthalmology?

1- Nil on fundoscopy but increased HbA1C

2- Hard exudates, cotton wool spots

3- Suspected glaucoma

4- Cataracts

**5- Retinal detachment**

Q1478. A 68 year old femalee presents with central visual blurring. On examination there appears to be small yellow deposits within the maculae and a small haemorrhage at the maculae. Fluoroscein angiography is performed and shows neovascularisation within the macula of both eyes. You suspect wet age related macular degeneration. Which of the following is an important risk factor for the development?

1- Hypertension

**2- Smoking**

3- Cataract surgery

4- Glaucoma

5- Diabetes

Q1479. A patient is seen in a diabetic clinic. During fundoscopy, you notice neovascularisation near the optic disc in one eye, but not the other. Which investigation should you order?

1- Coagulation screen

2- HbA1c

3- ECG

4- CT head

**5- Carotid Doppler**

Q1480. A lady aged 32 presents with severe eye pain and photophobia. Her eye appears red with a blue-ish tint to the sclera. Her history reveals recent early joint pain that she put down to exercise. What is the cause of the eye pain?

1- Optic neuritis

2- Episcleritis

**3- Scleritis**

4- Conjunctivitis

5- Uveitis

Q1481. What would be found on fundoscopy if a patient has maculopathy?

1- Flame haemorrhage and cotton wool spots

**2- Macular oedema, ischaemia and hard exudates**

3- Neovascularisation

4- Macular oedema, ischaemia and cotton wool spots

5- Normal fundus

Q1482. A 30 year old male with chronic lower back pain and a history of ulcerative colitis complains of a red painful eye and blurred vision. What is the most likely cause of the pain?

1- Conjunctivitis

2- Scleritis

**3- Uveitis**

4- Keratitis

5- Chorioretinitis

Q1483. An 18 year old has bilateral ptosis, restricted eye movements, opthalmoplegia, retinitis pigmentosa and AV block. What is the diagnosis?

1- Chronic progressive external ophthalmoplegia

**2- Kearns Sayre syndrome**

3- Pearson syndrome

4- Myotonic dystrophy

5- Myasthenia gravis

Q1484. Which of the following suggests a trochlea nerve (CNI V) palsy?

**1- Torsional diplopia**

2- Ear pain

3- Horizontal diplopia

4- Problem seeing things at a distance

5- Ptosis

Q1485. A 35-year-old female known to have protein C deficiency presents with a sudden onset loss in her right eye. On fundoscopy there is evidence of flame haemorrhages and the optic disc looks oedematous. What is the most likely diagnosis?

**1- Branch retinal vein thrombosis**

2- Hypertensive retinopathy

3- Diabetic retinopathy

4- Vitreous haemorrhage

5- Age related macular degeneration

Q1486. A 30 year old presents with what sounds like tension headaches to her GP. On examination you notice that she has one pupil dilated more than the other. This does not contrict to light however does constrict to accommodation and the rest of the eye examination is normal. She also has loss of her ankle reflexes. What is the most likely diagnosis?

1- IIIrd cranial nerve palsy

2- Horners syndrome

3- Argyll Robertson pupil

**4- Holmes-Adie pupil**

5- Space occupying lesion

Q1487. A 68-year-old female presents with central visual blurring. On examination there apprears to be small yellow deposits within the maculae and a small haemorrhage at the maculae. Fluoroscein angiography is performed and shows neovascularisation within the macula of both eyes. You suspect wet age related macular degeneration. Which of the following is an important risk factor for the development?

1- Cataract surgery

2- Glaucoma

3- Hypertension

4- Diabetes

**5- Smoking**

Q1488. What finding might you expect to see on fundoscopy in a patient with subacute bacterial endocarditis?

1- Dot & blot haemorrhages

2- AV nipping

3- Pale optic disc

**4- Roths spots**

5- Nil

Q1489. A 45-year-old man presents with a 2-month history of blurred vision. The acuity in his affected eye is 6/36. On fundoscopy there is evidence of reddish brown streaks radiating out from the optic disc. On inspection there is evidence of excessive skin folds. What is the most likely diagnoses?

1- Plasmosis

2- Pseudoxanthoma elasticum

3- Wilsons disease

4- Sickle Cell disease

**5- Ehlers-Danlos syndrome**

Q1490. A 30-year-old presents to her GP with reduced vision in her left eye. She has previously presented with abnormal sensory changes in her leg which have now resolved. On examination her visual acuity is greatly reduced and there is evdence of a relevant afferent pupil defect. All movements of the eye are very painful. On fundoscopy and neurological examination there is nil of note. What is the most likely diagnosis?

1- retinal vein occlusion

2- Orbital tumor

**3- Optic neuritis**

4- Thyrotoxicosis

5- Age related macular degeneration

Q1491. A 81 year old female presents with a 5 day history of double vision when looking right. There is no other history of note. Past medical history includes controlled hypertension and hypercholesterolaemia. She smokes 10 cigarettes per day. Ocular movements demonstrate an inability to abduct the right eye. The rest of the examination is normal. What is the diagnosis?

**1- Sixth nerve palsy**

2- Brown syndrome

3- Duanes syndrome

4- Thyroid eye disease

5- Stroke

Q1492. A 60 year old man presents with sudden painless sight loss in his left eye when he woke that morning. On examination, visual acuity is normal in the right eye and decreased in the left. A marked afferent papillary defect is seen. Fundoscopy shows retinal haemorrhages globally, dilated tortuous retinal veins, cotton wool spots and macular oedema. The right eye is normal. The patient has no history to note, is not on any medication, but his blood pressure at examination was 190/110 and a blood sugar of 13.1 mmol/L. What has caused the sight loss?

1- Branch retinal vein occlusion

**2- Central retinal vein occlusion**

3- Ocular ischaemic syndrome

4- Diabetic retinopathy

5- Hypertensive retinopathy

Q1493. A 34 year old man with diabetes presents with painless loss of vision in his right eye when woke up that morning. He has a 12 year history of diabetes and 5 year history of controlled hypertension. With his right eye he can only distinguish light from dark. Pupil reactions are normal. Fundoscopy shows boat shaped pre-retinal haemorrhage, neovascularisation near the optic disk, cotton wool spots and microaneurysms. What has caused the sight loss?

1- Background (non-proliferativ e) diabetic retinopathy

2- Stroke

**3- Proliferative diabetic retinopathy**

4- Hypertensive retinopathy

5- Branch retinal vein occlusion

Q1494. A 30 year old male with chronic lower back pain and a history of ulcerative colitis complains of a red painful eye and blurred vision. What is the most likely cause of the pain?

**1- Uveitis**

2- Conjunctivits

3- Scleritis

4- Keratitis

5- Chorioretinitis

Q1495. A 71 year old presents to his GP with double vision that occurs when reading, particularly in the evening. On examination there is ptosis of the right eyelid, normal visual acuity and no pupil abnormality. What is the likely diagnosis?

1- Chronic progressive external ophthalmoplegia

2- Thyroid eye disease

**3- Myaesthenia gravis**

4- Sixth nerve Palsy

5- Third nerve palsy

Q1496. Which ocular complaint is associated with Marfan syndrome?

1- Macular degeneration

2- Raised intraocular pressure

3- Strabismus

4- Long sightedness

**5- Lens dislocation**

Q1497. If band keratopathy is discovered, which investigation should be performed?

1- CT head

2- Random glucose

3- LFTs

**4- Serum calcium**

5- U&Es

Q1498. Which of the following is characteristically found in Wilsons disease?

1- Bitot spots

2- Corneal arcus

3- Band keratopathy

**4- Kayser Fleischer rings**

5- Wolfflin Spots

Q1499. Which of the following ocular signs are associated with neurofibromatosis type 1?

1- Brushfield spots

2- Bitot spots

3- Cataract

**4- Lisch nodules**

5- Uveitis

Q1500. A lady aged 32 presents with severe eye pain and photophobia. Her eye appears red with a blue-ish tint to the sclera. Her history reveals recent early joint pain that she put down to exercise. What is the cause of the eye pain?

**1- Scleritis**

2- Optic neuritis

3- Uveitis

4- Conjunctivitis

5- Episcleritis

Q1501. In a patient with a oculomotor nerve palsy, which of the following would distinguish between a medical (ischaemi c) and surgical (compressiv e) lesion?

**1- Pupil involvement**

2- Inability to abduct the eye

3- Hyperhydrosis of the affected side

4- Facial paralysis

5- Ptosis

Q1502. Which of the following drugs is contraindicated in myaesthenia gravis?

1- Warfarin

2- ACE inhibitors

**3- Aminoglycosides**

4- Glycopeptides

5- Cephalosporins

Q1503. What would be found on fundoscopy if a patient has maculopathy?

1- Normal fundus

**2- Macular oedema, ischaemia and hard exudates**

3- Neovascularisation

4- Macular oedema, ischaemia and cotton wool spots

5- Flame haemorrhage and cotton wool spots

Q1504. A diabetic patient was found to have a vitreous haemorrhage at fundoscopy which cleared after 4 days. What is the cause of the haemorrhage?

1- Non proliferative retinopathy

**2- Proliferative retinopathy**

3- Stroke

4- Branch retinal vein occlusion

5- Hypertensive retinopathy

Q1505. What is the gold standard test for early diabetic retinopathy?

**1- Fluorescein angiography**

2- Biopsy

3- Ocular ultrasound

4- Pupillometry

5- Electroretinography

Q1506. A HIV positive man presents with multiple waxy dimpled lumps on his eyelids. Which is the most likely diagnosis?

1- Skin tags

**2- Molluscum contagiosum**

3- Kaposis sarcoma

4- Herpes zoster

5- Basal cell carcinoma

Q1507. Which of the following is the characteristic finding for cytomegalovirus retinitis?

1- Cotton wool spots

2- Macular oedema

3- Anisocoria

**4- Retinal haemorrhages**

5- Conjunctival injection

Q1508. Which of the following would confirm a diagnosis of MS in a patient that has had their 3rd episode of optic neuritis?

1- Normal MRI scan

**2- Visual Evoked Potentials (VE P) showing abnormalities in the normal eye**

3- Ptosis

4- Xanthochromia in the CSF

5- Abnormal nerve conduction studies

Q1509. Which of the following ocular signs may be present in Behcets disease?

1- Ptosis

2- Homonymous hemianopia

3- Sudden onset complete sight loss

4- Photophobia

**5- Hypopyon**

Q1510. What is the most appropriate investigation for amaurosis fugax?

1- Fluorescein angiography

2- CT head

3- MRI head

**4- Carotid Doppler**

5- ECG

Q1511. Which disease is characterised by absent ankle jerks, excessive sweating and unequal pupils?

1- Compression of the third nerve

**2- Holmes Adie syndrome**

3- Opiate ingestion

4- Bells palsy

5- Argyle Robertson pupils

Q1512. What treatment should be avoided for hyphaema?

1- Topical

2- Antibiotics

**3- Pain relief with aspirin**

4- Anterior chamber paracentesis

5- No treatment

Q1513. A GP notes Lisch nodules of the iris- what else could be present?

1- Hearing loss

2- Ptosis

3- Axillary freckles

**4- Ash-leaf spots**

5- Loss of visual acuity

Q1514. A 31 year old female presents with gradual blurring of vision in her left eye over the prior 3 weeks. The visual acuity is reduced in both eyes, the left pupil has a delayed response and the consensual pupillary reaction in the right eye is sluggish. Fundoscopy reveals a normal optic disc. What is the likely diagnosis?

1- Glaucoma

**2- Retrobulbar neuritis**

3- Central retinal artery occlusion

4- Cerebral tumour

5- Ischaemic optic neuropathy

Q1515. A 71 year old presents with right ptosis and anisocoria. History reveals a 25 year history of smoking 20 cigarettes a day, controlled hypertension, controlled hypercholesterolaemia and benign prostate hypertrophy. What investigation should be ordered?

1- Carotid doppler

2- CT head

3- Fluorescein angiography

4- Coagulation screen

**5- Chest X-ray**

Q1516. If a patient presents with a homonymous hemianopia where is the likely site of the lesion?

1- Parietal lobe

**2- Optic Radiation**

3- Optic nerve

4- Temporal lobe

5- Optic chiasm

Q1517. An 71 year old female presents with sudden painless right sided sight loss, a right sided headache which has been present for 3 weeks and a tender scalp when she combs her hair. Laboratory tests reveal an elevated erythrocyte sedimentation rate. What is the initial management of this patient?

1- Ultrasound of the temporal artery

2- Refer for urgent opthamology review

3- CT scan

**4- Administration of high-dose systemic steroids**

5- Temporal artery biopsy

# Chapter 10 Pharmacology

Q1518. A 50 year old African man is found to be hypertensive. Which of the following should be used first line?

1- Ramipril

**2- Bendroflumethiazide**

3- Diltiazem

4- Losartan

5- Atenolol

Q1519. A patient with hypertension and ischaemic heart disease is requesting sildenafil. Which of the following drugs would prevent it being prescribed?

1- Aspirin

2- Ramipril

3- Atenolol

4- Furosemide

**5- Nicorandil**

Q1520. What is the mechanism of action of aspirin?

1- Irreversibly inhibits ADP receptors on platelets

**2- Inhibiton of Cyclooxygenase**

3- Inhibition of lipooxygenase

4- Inhibits factor Xa production

5- Antagonists of glycoprotein IIb/IIIa receptors

Q1521. What is the mechanism of action of Fondaparinux?

1- Irreversibly binds directly to factor Xa, inhibiting it

**2- Selectively inhibits factor Xa through antithrombin III**

3- GP IIb/IIIa inhibitor

4- Reversible binding of factor Xa, inhibiting it

5- ADP receptor blocker

Q1522. Which of the following is a contraindication to the use of Bupropion?

1- Recent STEMI

2- Borderline hypertension

3- Glaucoma

4- Diabetes

**5- Epilepsy**

Q1523. A 45 year old female who is currently on theophylline for poorly controlled asthma is commenced on treatment for a UTI. The next day she is suffering from nausea and vomiting. On examination she is tachycardic. What antibiotic is she likely to have been commenced on?

1- Trimethoprim

**2- Ciprofloxacin**

3- Nitrofurantoin

4- Co amoxiclav

5- Amoxicillin

Q1524. Which of the following is the most appropriate treatment of renal osteodystrophy?

1- Colecalciferol and calcium supplementation

**2- Alfacalcidol and calcium supplement**

3- Erythropoietin

4- Calcium supplementation

5- Ergocalciferol and calcium supplementation

Q1525. Which of the following chemotherapeutic agents is most commonly associated with peripheral neuropathy?

1- Etoposide

2- Bleomycin

**3- Vincristine**

4- Doxorubicin

5- Cisplatin

Q1526. A 24 year old male has recently been commenced on an anticonvulsant. He has noticed a slight tremor since starting on the medication. What anticonvulsant has most likely been commenced?

**1- Sodium Valproate**

2- Gabapentin

3- Carbamazepine

4- Levetiracetam

5- Ethosuximide

Q1527. Which of the following drugs acts predominantly as a potassium channel blocker?

1- Atenolol

**2- Amiodarone**

3- Digoxin

4- Quinidine

5- Verapamil

Q1528. What is the mechanism of action of sitagliptin?

1- PPAR gamma agonist

2- GLP 1 analogue

3- K+ATP channel activator

4- Reduced peripheral insulin resistance

**5- Dipeptidyl peptidase IV inhibitor**

Q1529. A 32 year old male who has rheumatoid arthritis is wishing to start a family with his partner. However there has been difficulty in conceiving and further investigation reveals a low sperm count. Which of the following drugs is the most likely cause?

1- Hydroxychloroquine

**2- Sulfasalazine**

3- Azathioprine

4- NSAIDs

5- Methotrexate

Q1530. Which one of the following atypical antipsychotics is most likely to cause weight gain?

1- Risperidone

2- Aripiprazole

3- Amisulpiride

**4- Olanzapine**

5- Quetiapine

Q1531. Which of the following is most likely to lead to drug induced lupus?

**1- Hydralazine**

2- Phenothiazines

3- Penicilliamine

4- Phenytoin

5- Gold

Q1532. A 68 year old female has recently been commenced on amlodipine for hypertension. Although this has been effective in lowering her blood pressure she cannot tolerate the significant ankle swelling. Which of the following should be utilised as an alternative?

**1- Bendroflumethiazide**

2- Ramipril

3- Atenolol

4- Losartan

5- Methyldopa

Q1533. A patient who has been stable on the same dose of morphine sulphate for many years becomes opiate toxic. He has been unwell and has not been eating or drinking. From the following, what is the most likely cause?

1- Asthma

2- Alcohol

3- Liver failure

4- Hyperthyroidism

**5- Acute renal failure**

Q1534. In acute chemotherapy induced nausea and vomiting, which of the following is most useful in addition to ondansetron?

**1- Dexamethasone**

2- Prochlorperazine

3- Metoclopramide

4- Domperidone

5- Cyclizine

Q1535. Which of the following is the most appropriate regime for neutropenic sepsis?

1- Coamoxiclav and clarithromycin

2- Vancomycin

3- Coamoxiclav

**4- Tazocin and gentamicin**

5- Tazocin and metronidazole

Q1536. What is the mechanism of action of dipyridamole?

1- Phosphodiesterase activator

**2- Phosphodiesterase innhibitor**

3- ADP receptor blocker

4- COX1 inhibitor

5- COX2 inhibitor

Q1537. Which of the following anticonvulsants is most likely to cause hyponatraemia?

1- Phenytoin

2- Sodium valproate

3- Lamotrigine

4- Gabapentin

**5- Carbamazepine**

Q1538. Which of the following anticonvulsants has been associated with dupuytren's contracture?

1- Sodium valproate

**2- Phenytoin**

3- Levetiracetam

4- Lamotrigine

5- Carbamazepine

Q1539. Which of the following is a side effect which would be most likely to occur with the progesterone only pill rather than the combined oral contraceptive pill?

1- Depression

2- DVT

3- Migraine

4- Breast tenderness

**5- Irregular periods**

Q1540. In addition to the dopamine receptor, which other receptor does risperidone antagonise and mediate its effects through?

1- 5HT3

2- Beta 2

**3- 5HT2**

4- Ach

5- H2

Q1541. If furosemide is given as an IV bolus, what side effect can occur?

1- Vestibular nerve damage

2- Thrombophlebitis

3- Vomiting

**4- Ototoxicity**

5- Renal failure

Q1542. Low molecular weight heparins do not normally require to be monitored. However if required how can LMWH be monitored?

1- Platelets

**2- anti factor Xa assay**

3- PT

4- APTT

5- INR

Q1543. A patient with AF for which he is on digoxin, aspirin and atenolol if found to be in acute renal failure. What medication changes are essential?

**1- Reduce dose of digoxin**

2- Increase dose of digoxin

3- Stop atenolol

4- Stop aspirin

5- No changes required

Q1544. Which of the following drugs is not associated with reduced glucose tolerance?

1- Olanzapine

2- Prednisolone

3- Bendroflumethiazide

4- Atenolol

**5- Amlodipine**

Q1545. What is the mechanism of action of furosemide?

1- Inhibits sodium and chloride reabsorption in the descending loop of henle

2- Inhibits sodium and chloride reabsorption in the proximal convoluted tubule

3- Inhibits aldosterone secretion

4- Acts on early distal tubule and leads to increased sodium, chloride and water excretion

**5- Inhibits sodium and chloride reabsorption in the ascending Loop of Henle**

Q1546. Which of the following drugs is not associated with increased risk of lithium toxicity?

1- Losartan

2- Diclofenac

3- Ramipril

4- Furosemide

**5- Erythromycin**

Q1547. Which of the following drugs is not an enzyme inducer?

1- Alcohol

2- Rifampicin

3- Carbamazepine

4- Phenytoin

**5- Cimetidine**

Q1548. Whilst a patient is on atenolol, which other drug should be avoided?

**1- Verapamil**

2- Bendroflumethiazide

3- Quinine sulphate

4- Amlodipine

5- Isosorbide mononitrate

Q1549. What advice would you give to a patient on the oral contraceptive pill, who is being treated with antibiotics?

1- Extra precautions whilst on antibiotic and for 14 days after

**2- Extra precautions whilst on antibiotic and for 7 days after**

3- Nil required

4- Extra precautions whilst on antibiotic

5- Extra precautions whilst on antibiotic and for 28 days after

Q1550. Which of the following medications does not reduce the effectiveness of the oral contraceptive pill?

1- St Johns Wort

2- Phenytoin

3- Carbamazepine

4- Rifampicin

**5- Fluoxetine**

Q1551. Which organ is the major site for first pass metabolism?

1- Kidneys

2- Stomach

3- Adipose tissue

**4- Liver**

5- Muscle

Q1552. The plasma concentration of a drug on measurement is 20 mg/L. After 15 hours its levels is 2.5 mg/L. What is the half life of this drug?

1- 3 hours

2- 10 hours

3- 4 hours

**4- 5 hours**

5- 6 hours

Q1553. A drug has a half life of 4 hours. Its current level is 10 mg/L, what would the level be at 8 hours?

1- 1 mg/L

2- 7.5 mg/L

**3- 2.5 mg/L**

4- 10 mg/L

5- 5 mg/L

Q1554. Before commencing Infliximab, a history if which of the following should be excluded?

1- Ischaemic Heart disease

**2- Tuberculosis**

3- Recurrent UTIs

4- COPD

5- Hypertension

Q1555. In which of the following drugs should TPMT be measured before commencing treatment?

1- Ciclosporin

2- Mycophenolate mofetil

**3- Azathioprine**

4- Methotrexate

5- Infliximab

Q1556. Before commencing azathioprine therapy, which of the following should be measured?

1- 6 mercaptopurine

2- Renal function

3- Full blood count

**4- Thiopurine S methyltransferase**

5- Liver function

Q1557. Which of the following drugs is not associated with gingival hypertrophy

1- Phenytoin

**2- Atenolol**

3- Ciclosporin

4- Nifedipine

5- None of these drugs

Q1558. After how many hours post dose should lithium levels be taken?

1- 14 hours

2- 4 hours

**3- 12 hours**

4- 6 hours

5- 10 hours

Q1559. After changing the dose of lithium, how long after should levels be taken?

1- 10 days

2- 1 day

3- 14 days

**4- 5 to 7 days**

5- 3 to 5 days

Q1560. When a patient is on lithium therapy, apart from renal function which other test should be performed 6 monthly or annually?

**1- Thyroid function tests**

2- Lithium levels

3- Liver function tests

4- Nil

5- Full blood count

Q1561. Which of the following is not a cause of nephrogenic diabetes insipidus?

1- Lithium toxicity

**2- Head Injury**

3- Hypercalcaemia

4- Renal tubular acidosis

5- Hypokalaemia

Q1562. A patient with a past history of a psychiatric disorder presents with nausea, vomiting, tremor and ataxia. An ECG shows flattened t waves. What is the most likely diagnosis?

1- Serotonin syndrome

2- Tricyclic antidepressants overdose

**3- Lithium toxicity**

4- Dystonia

5- Tardive dyskinesia

Q1563. Which of the following drugs is least likely to lead to digoxin toxicity?

1- Quinidine

**2- Amlodipine**

3- Erythromycin

4- Atenolol

5- Amiodarone

Q1564. What is the mechanism of action of bendroflumethiazide?

1- Acts on early distal tubule and leads to increased sodium, chloride and water reabsorption

2- Inhibits aldosterone

**3- Acts on early distal tubule and leads to increased sodium, chloride and water excretion**

4- Acts on loop of henle and leads to increased sodium, chloride and water excretion

5- Acts on proximal tubule and leads to increased sodium, chloride and water excretion

Q1565. Which of the following is not a side effect of amiodarone?

1- Grey discolouration of skin

**2- Yellow discolouration of vision**

3- Pulmonary fibrosis

4- Photophobia

5- Hepatoxicity

Q1566. Which of the following is not associated with increased risk of digoxin toxicity?

1- Hypomagnesaemia

2- Acidosis

3- Hypokalaemia

**4- Hyperkalaemia**

5- Hypernatraemia

Q1567. Which of the following is not a feature of digoxin toxicity?

1- Blurred vision

2- Palpitations

**3- Acute renal failure**

4- Nausea and vomiting

5- Yellow discolouration of vision

Q1568. What is the mechanism of action of methotrexate?

1- Modification of folate

2- Non competitive inhibitor of dihydrofolate reductase

**3- Competitive inhibitor of dihydrofolate reductase**

4- Reduced uptake into cell of folate

5- Reduced absorption of folate

Q1569. A 65 year old male has recently been discharged from hospital following a myocardial infaction. He had been commenced on atorvastatin 40mg during his admission. He has been feeling very well since his discharge. He presents for his routine bloods. His AST and ALT are found to be 100, having previously been normal. Which of the following action should be taken?

1- Switch atorvastatin to simvastatin 80mg

2- Stop Atorvastatin

3- Switch atorvastatin to simvastatin 40mg

4- Reduce to 20mg atorvastatin and monitor LFTs

**5- Maintain current dose of atorvastatin and monitor LFTs**

Q1570. A patient has been recently commenced on rifampicin, isoniazid and pyrazinamide. His recent blood check shows a bilirubin of 12, an AST of 88 and ALT of 90. What is your next course of action?

1- Stop all drugs

2- Stop Pyrazinamide

3- Stop Isoniazid

**4- Continue with current management**

5- Stop Rifampicin

Q1571. A 36 year old female presents to her A+E department with an overdose. She states that on Friday evening she took 10 tablets then she took another 15 on Saturday and a further 15 on Sunday evening and she then presented 2 hours later. Which of the following is the next appropriate management?

1- Commence N-acetyl cysteine if PT is > 1.5

2- Take paracetamol levels and commence Nacetyl cysteine if level above high risk treatment line

3- Take paracetamol levels and commence Nacetyl cysteine if level above normal treatment line

**4- Commence N-acetyl cysteine**

5- Take bloods at 4 hours post overdose and await results before treatment

Q1572. A 52 year old female presents to her GP as she feels she is "going through the change". Her periods stopped about 1 year ago and she is suffering from hot flushes and sweating. She is having difficulty sleeping because of this and she has missed a few days of work due to tiredness and feels embarrassed in work when she is having flushes. She has a history of migraines. Her FSH is 40 IU/L and other bloods including TFTs are normal. What is the next course of action?

1- Nil specific

2- Commence HRT - continuous combined oral

**3- Commence HRT - continuous combined transdermal patches**

4- Commence HRT - cyclical combined transdermal patches

5- Low dose vaginal oestrogen

Q1573. A 35 year old female had been admitted following a paracetamol overdose and had been treated with N Acetyl cysteine. On day 3 she is found to be in acute renal failure with a creatinine of 500. Which of the following is the mechanism which leads to acute renal failure?

1- Hypovolaemia

2- Hepatorenal syndrome

3- Glomerulonephritis

**4- Acute Tubular Necrosis**

5- Papillary necrosis

Q1574. A 35 year old female had been admitted following a paracetamol overdose and had been treated with N Acetyl cysteine. On day 3 she is found to be in acute renal failure with a creatinine of 500. Which of the following is the best managment of the acute renal failure?

1- IV sodium bicarbonate

**2- Haemodialysis**

3- IV fluids

4- Further course of N-acetyl cysteine

5- Haemofiltration

Q1575. What is the mechanism of action of Ciclosporin?

1- Anti -TNF-alpha

2- Binds to T cell receptor

3- Inhibits calcineurin reducing Interleukin-10 levels

**4- Inhibits calcineurin reducing Interleukin-2 levels**

5- Inhibits calcineurin increasing Interleukin-2 levels

Q1576. A 58 year old gentleman with type 2 diabetes mellitus has tirofiban administered before undergoing primary coronary intervention. Which of the following best describes the mechanism of action of tirofiban?

1- ADP receptor Inhibitor

2- Activation of antithrombin III

**3- GP IIb/IIIa Inhibitor**

4- Vitamin K antagonist

5- Factor Xa inhibitor

Q1577. Which of the following is the best method of monitoring a paracetamol overdose?

1- INR

2- Full Blood Count

3- Liver Function Tests

4- Renal Function

**5- Prothrombin Time**

Q1578. What is the main advantage of the use of capecitabine compared to 5-fluorouracil in the treatment of colorectal cancer?

1- Less anaphylactic reactions

**2- Oral form**

3- Less immunosuppression

4- Shorter Infusion time

5- Capecitabine is twice as effective as 5- fluorouracil

Q1579. A 68 year old has been commenced on an antihypertensive medication. She is now complaining of ankle swelling. Which of the following drugs is the most likely cause?

1- Bendroflumethiazide

2- Furosemide

3- Atenolol

4- Ramipril

**5- Amlodipine**

Q1580. Which of the following is a contraindication to the use of a bisphosphonate?

**1- eGFR <30**

2- Age 21

3- Corrected Calcium of 2.5

4- Patients with previous gastric surgery

5- BMI 19

Q1581. Which of the following is the main mechanism of action of metformin?

1- Reduced peripheral insulin sensitivity

2- Increased peripheral glucose uptake

3- Increased Lipolysis

4- Increased insulin secretion from pancreas

**5- Reduced Hepatic Glucose Output**

Q1582. A 55 year old male has been commenced on a third antihypertensive. His most recent bloods reveal hyponatraemia and hypokalaemia. Which of the following is the most likely culprit?

1- Methyldopa

2- Atenolol

3- Amlodipine

4- Ramipril

**5- Bendroflumethiazide**

Q1583. A 22 year old female is admitted to A+E. Her friends think she has "taken something". She appears euphoric and can't sit still. She is being sexually inappropriate. You note her pupils are dilated. Which of the following is the most likely culprit?

1- Heroin

**2- Cocaine**

3- Ethanol

4- Morphine Sulphate

5- Diazepam

Q1584. A 53 year old female who has bipolar depression presents with nausea, vomiting, diarrhoea and abdominal cramps. She also appears tremulous and confused. A lithium level is measured and reveals a level of 2.5 mmol/l. She is also found to be in acute renal failure. Which of the following is the most appropriate management?

1- Sodium Bicarbonate

2- Gastric Lavage

3- Peritoneal Dialysis

4- Activated Charcoal

**5- Haemodialysis**

Q1585. Which of the following is a side effect of sildenafil use?

1- Bodily secretions turn pink

**2- Blue tint to vision**

3- Vitreous haemorrhage

4- Yellow halo around objects

5- Difficulty discriminating red/greem

Q1586. A 58 year old male who is undergoing treatment for pancreatic carcinoma presents with nausea and vomiting. He vomits undigested food and feels full very quickly. He appears dehydrated and there is evidence of succussion splash. Which of the following treatments is most useful?

**1- Metoclopramide**

2- Ondansetron

3- Cyclizine

4- Dexamthasone

5- Levomepromazine

Q1587. Imatinib is utilised in the management of Chronic Myeloid Leukaemia. What is its mechanism of action?

1- PPAR gamma inhibitor

**2- Tyrosine kinase inhibitor**

3- Tyrosine kinase activator

4- Tyrosine kinase receptor blocker

5- PPAR gamma activator

Q1588. A patient on lithium for Bipolar disorder requires an antihypertensive. Which of the following is the drug of choice?

1- Bendroflumethiazide

2- Furosemide

3- Ramipril

4- Losartan

**5- Amlodipine**

Q1589. Which of the following does not require alteration in renal failure?

1- Amoxicillin

**2- Clindamycin**

3- Piperacillin

4- Clarithromycin

5- Co amoxiclav

Q1590. A 72 year old female with a past medical history of hypertension and type 2 diabetes mellitus presents with fatigue, bone pain and feeling weak. On examination there is evidence of bony tenderness in her spine and legs and proximal muscle weakness. Bloods reveal elevated creatinine, phosphate and parathyroid hormone levels and a low calcium. Which of the following should be commenced?

1- Cholecalciferol

2- Cinacalcet

**3- Alfacalcidol**

4- Risedronate

5- Strontium ranelate

Q1591. A 45 year old male is admitted with acute pancreatitis. He is found to have a very elevated triglyceride level and slightly high cholesterol. Which treatment should be commenced to reduce his risk of further episodes of acute pancreatitis?

1- Nil required

**2- Fibrate**

3- Statin

4- Niacin

5- Omega 3 fish oils

Q1592. A gentleman has recently been commenced on a new antianginal medication. He has noticed that he has began to develop ulcers in his mouth. Which of the most following is the likeliest cause?

1- Atenolol

2- Amlodipine

3- Isosorbide Mononitrate

**4- Nicorandil**

5- Diltiazem

Q1593. A patient with a past history of a psychiatric disorder presents with nausea, vomiting, tremor and ataxia. An ECG shows flattened t waves. What is the most likely diagnosis?

1- Dystonia

2- Tricyclic antidepressants

3- Tardive dyskinesia

4- Serotonin syndrome

**5- Lithium toxicity**

Q1594. Which of the following is not a cause of nephrogenic diabetes insipidus?

**1- Head injury**

2- Hypercalcaemia

3- Hypokalaemia

4- Lithium toxicity

5- Renal tubular acidosis

Q1595. What is the mechanism of action of N acetyl cysteine in paracetamol overdose?

1- Hepatic protective

2- Reduces glutathione

3- Binds toxic metabolites

4- Increases break down of toxic metabolites

**5- Replenishes glutathione**

Q1596. A patient with AF for which he is on digoxin, aspirin and atenolol if found to be in acute renal failure. What medication changes are essential?

1- Stop atenolol

**2- Reduce dose of digoxin**

3- Increase dose of digoxin

4- Stop aspirin

5- No changes required

Q1597. Which of the following drug is not associated with a survival benefit in congestive cardiac failure?

1- Carvedilol

**2- Digoxin**

3- Nitrates and hydralazine

4- Ramipril

5- Spironolactone

Q1598. A patient presents with compensated cardiac failure. Which of the following medications is commenced initially and will most likely improve symptoms and prognosis?

1- Furosemide

2- Spironolactone

3- Digoxin

4- Amlodipine

**5- Ramipril**

Q1599. Which of the following is the best description of the mechanism of action of docetaxel?

1- DNA damage leading to inhibition of DNA synthesis and apoptosis

2- Pyrimidine antimetabolite

3- Inhibition of folic acid reductase

**4- Suppression of microtubule dynamic assembly and disassembly leading to inhibition of mitosis**

5- Inhibition of DNA replication

Q1600. Which of the following clotting factors is not inhibited by warfarin?

1- Factor IX

2- Factor X

3- Factor VII

4- Factor II

**5- Factor VIII**

Q1601. What is the mechanism of action of carbimazole?

1- Thyroxine antagonist

**2- Inhibits iodine binding to thyroglobulin**

3- Activates thyroid peroxidase

4- Blocks iodine receptors

5- Binds to iodine inhibiting it's uptake

Q1602. A 64 year old gentleman has recently been commenced on an antihypertensive medication. He then presents to hospital with facial swelling with the tongue and lips markedly swollen. There is no evidence of urticaria. What is the most likely cause of his facial swelling?

**1- ACE Inhibitor induced angioedema**

2- Latex allergy

3- Anaphylaxis

4- Thiazide induced angioedema

5- NSAID induced angioedema

Q1603. A patient is commenced on isoniazid and is a fast acetylator. Which of the following is this patient more likely to develop than a slow acetylator?

1- Hepatotoxicity

2- Peripheral Neuropathy

3- Nausea

4- Treatment failure

**5- None of these**

Q1604. A patient has recently underwent a liver transplant and is found to have hyperkalaemia. He is on anti rejection drugs but is otherwise well and is on no other medications. What is the most likely cause of his hyperkalaemia?

1- Ramipril

**2- Tacrolimus**

3- None of these

4- Ciclosporin

5- NSAIDs

Q1605. Which of the following antibiotics does not require dose alteration in renal failure?

**1- Ceftriaxone**

2- Vancomycin

3- Gentamicin

4- Co amoxiclav

5- Tazocin

Q1606. A young patient with Glucose-6-phosphate dehydrogenase deficiency is planning on travelling to Africa, however is concerned regarding malaria prophylaxis. What do you advise?

**1- Avoid primaquine**

2- Use of only mosquito nets

3- Avoid mefloquine

4- Avoid doxycycline

5- Nil required

Q1607. A patient who has recently undergone a renal transplant presents with excessive hair growth. Which of the following medications is the most likely cause?

1- Azathioprine

2- Corticosteroids

3- Mycophenolate mofetil

**4- Ciclosporin**

5- Tacrolimus

Q1608. Which of the following antihypertensives is most appropriate for use during pregnancy?

1- Atenolol

2- Losartan

**3- Labetalol**

4- Ramipril

5- Bendroflumethiazide

Q1609. A 72 year old male with type 2 diabetes mellitus is found to be hypertensive. Over the last few months there has been protein in his urinalysis persistently. You decide to commence an antihypertensive. Which of the following is the most appropriate?

1- Amlodipine

2- Atenolol

3- Losartan

**4- Ramipril**

5- Bendroflumethiazide

Q1610. A 28 year old gentleman is commenced on ifosfamide for testicular cancer . Which other drug should be commenced and for what reason?

1- Amifostine to prevent mucositis

2- Nil required

3- Allopurinol to prevent Tumour Lysis Syndrome

**4- Mesna ifosfamide induced hemorrhagic cystitis**

5- Amifostine to prevent nephrotoxicity

Q1611. A patient is found to have a broad complex tachycardia. Which of the following is contraindicated?

**1- Verapamil**

2- DC Cardioversion

3- Lidnocaine

4- Amiodarone

5- Adenosine

Q1612. A 65 year old male who has a past medical history of STEMI, hypertension and osteoarthritis is found to have ARF. His CK is over 5000. Which of the following is the most likely cause?

1- Furosemide

2- Ibuprofen

**3- Simvastatin**

4- Atenolol

5- Ramipril

Q1613. Which of the following is most likely to lead to hypercalcaemia?

1- Spironolactone

2- Furosemide

3- Amiloride

**4- Bendroflumethiazide**

5- Ramipril

Q1614. What is the mechanism of action of sumatriptan?

1- Dopamine antagonist

2- Dopamine agonist

3- 5-HT1D receptor antagonist

**4- 5-HT1D receptor agonist**

5- Calcium channel blocker

Q1615. A patient is suspected of ingesting ethylene glycol. She is found to be acidotic and hypocalcaemic. She is given fomepizole. What is its mechanism of action?

1- Inhibitor of ethylene glycol

**2- Competitive inhibition of alcohol dehydrogenase**

3- Restores glutathione store

4- Increases metabolism of ethylene glycol

5- Chelates toxic metabolites

Q1616. Gastrin leads to hydrochloric acid secretion from parietal cells both directly and indirectly. Which of the following is the best description of the indirect mechanism?

1- Bind to histamine receptors on parietal cells

2- Binds to gastrin receptors on parietal cell

3- Binds to gastrin receptor on ECL cells which then hydrogen ions

4- Binds to gastrin receptor on ECL cells which then secrete prostaglandins

**5- Binds to gastrin receptors on ECL cells which then release histamine**

Q1617. A 68 year old male is being treated for a UTI. He suffers an achilles tendon rupture. Which of following antibiotic is he most likely to be taking?

1- Coamoxiclav

2- Amoxicillin

**3- Ciprofloxacin**

4- Trimethoprim

5- Nitrofurantoin

Q1618. A patient with rheumatoid arthritis presenting with increasing dyspnoea. Which of the following drugs is most likely responsible?

1- Gold

**2- Methotrexate**

3- NSAIDs

4- Hydroxychloroquine

5- Sulphasalazine

Q1619. How does tolterodine lead to an improvement in the symptoms of detrusor instability?

1- Beta receptor blocker

2- Alpha receptor blocker

**3- Antimuscarinic effect**

4- Anti histamine effect

5- Beta agonist

Q1620. In angina, which of the following accounts for some of the therapeutic effect of beta blockers?

1- Coronary artery vasodilatation

2- Peripheral vasoconstriction

3- Increased heart rate

**4- Decreased heart rate**

5- Peripheral vasodilatation

Q1621. Which of the following should be avoided if a patient is taking simvastatin?

1- Cranberry juice

**2- Grapefruit Juice**

3- Amoxicillin

4- Co amoxiclav

5- Orange Juice

Q1622. Which of the following best describes the mechanism of action of allopurinol?

1- Increased urinary excretion

**2- Xanthine Oxidase Inhibitor**

3- Increases degradation of uric acid

4- Binds uric acid

5- Xanthine oxidase activator

Q1623. What is the mechanism of action of digoxin?

1- Inhibits Na+/Ca2+ pump

2- Increases intracellular potassium

3- Activates Na+/K+ ATPase pump

**4- Inhibits Na+/K+ ATPase pump**

5- Increases sympathetic activity

# Chapter 11 Psychiatry

Q1624. Which of the following is more suggestive of vascular dementia than other dementias?

1- Early loss of insight

2- Increased creativity

3- Sleep wake cycle disturbance

**4- Seizures**

5- Slow onset

Q1625. Which of the following is a contraindication to ECT?

**1- Raised intracranial pressure**

2- Pregnancy

3- Immunocompromised

4- Epilepsy

5- Cardiac pacemaker

Q1626. ou are asked to see a 70 year old man with memory problems. He has problems recalling past events from his life and he is unable to recall a list of everyday items. He cannot tell you where he is or the month of the year, and gives bizarre answers to many of your questions. What is the diagnosis?

1- Early signs of Alzheimers

**2- Korsakoffs syndrome**

3- Vascular dementia

4- Stroke

5- Post ictal state

Q1627. A 7 year old boy has multiple motor tics and makes clicking sounds at unpredictable intervals. What is the diagnosis?

1- Hyperekplexia

**2- Tourettes syndrome**

3- ADHD

4- Normal varient

5- Autism

Q1628. A 24 year old male presents to his GP to talk about the messages that he receives through a chip in his fillings. The chip can control his thoughts and his movements. He believes that he is being used by an unknown power for an unknown mission. This has occurred for 4 months but it has only troubled him recently. What is the diagnosis?

1- Depression

**2- Schizophrenia**

3- Bipolar syndrome

4- Normal

5- Personality disorder

Q1629. A 41 year old female presents to her GP with low mood, poor concentration, problems sleeping and no interest in any of her hobbies which she cant shake. She doesnt appear as well dressed as she normally would be and her mini mental state score is 25/30. Blood tests including thyroid function are normal. Which of the following is most likely?

1- Picks disease

2- Early onset dementia

**3- Depression**

4- Alcohol excess

5- Anxiety disorder

Q1630. A 19 year old is brought to A+E. He was on a night out 2 nights ago and is described by his friend as a "party animal". He is now acting very oddly. He is clearly hallucinating and is speaking rapidly. He is euphoric and laughing inappropriately. He appears agitated and his affect is blunted. His pupils are dilated and he is tachycardic. What is the most likely diagnosis?

1- Heroin use

2- Cannibas induced psychosis

3- Bipolar disorder

4- Schizophrenia

**5- Amphetamine induced psychosis**

Q1631. A 45 year old patient who is known to drink excessively presents in acute alcohol withdrawal. On examination he appears malnourished. He is commenced on diazepam. His BM is 4.2mmol/l. What is the next course of action?

1- IM glucagon

2- IV dextrose

**3- Commence IV Thiamine**

4- Liason psychiatry

5- IV magnesium

Q1632. A 45 year old male was brought to A+E. He was found wandering the streets of a city and was unsure of where he was or who he was. He could not recall anything from his past. Which of the following is the most likely diagnosis?

1- Multiple personality

**2- Fugue state**

3- Malingering

4- Transient Global amnesia

5- Transient Ischaemic Attack

Q1633. A patient with a 6 month history of low mood and some suicidal thoughts is discussing her treatment options. Which of the following is the best pharmacological treatment?

1- Amitriptyline

2- Selegiline

3- Lorazepam

4- Haloperidol

**5- Fluoxetine**

Q1634. A patient describes a sensation in which some of her thoughts are repeated by a voice in her head. How is this normally described?

1- Thought multiplication

2- Echophonia

**3- Thought echo**

4- Thought broadcasting

5- Thought revolving

Q1635. A 34 year old female presents regularly with minor symptoms to her GP. She states her gut is sometimes very active and noisy and she is worried that she may have cancer. She has asked for further investigations to be performed. A colonoscopy reveals no abnormalities. She is not reassured by this. What is the most likely diagnosis?

1- Irritable bowel syndrome

2- Conversion disorder

**3- Hypochondriasis**

4- Body dysmorphic disorder

5- Somatization disorder

Q1636. A patient with schizophrenia believes that his body is being controlled by an alien. What is the best description of this?

1- Somatic delusion

**2- Delusions of control**

3- Grandiose delusions

4- Persecutory delusions

5- Delusions of reference

Q1637. A man is brought to the GP by his wife. Over the previous 4 months he has been aggressive, rude to strangers and has noticeable memory loss. He is not on any medication, does not smoke or drink and takes no recreational drugs. On examination his BP is 145/9 mmHg, bloods are normal including thyroid function, and there is nothing else to note. An MRI shows increased T2 signal in the frontal lobe white matter and frontal lobe atrophy. A PET scan demonstrates hypometabolism in the front and temporal areas. What is the most likely diagnosis?

1- Alzheimers disease

2- Lewy Body demetnia

3- Huntington disease

4- Stroke

**5- Picks disease**

Q1638. You are reviewing a patient who tells you she feels like a failure. She has no friends and claims no body would want to be her friend, lives alone, has never had a partner, finds it hard to interact with her family, has feelings of rage in between longer bouts of emptiness and self harms. Her notes detail 8 previous suicide attempts, including two whilst admitted. What is the diagnosis?

1- Bipolar depression

2- Dissociative disorder

**3- Borderline personality disorder**

4- Schizophrenia

5- Substance abuse

Q1639. A 28 year old female attends her GP with her mother due to anxiety. Her mother states her daughter is worried that her mother will leave. She is unemployed and does not have any hobbies. She hates confrontation. She moves from one relationship to the other very rapidly as she does not like to on her own for any length of time. She is indecisive and her mother states she is always requiring reassurance. Which of the following is the most likely diagnosis?

1- Anxiety Disorder

2- Avoidant Personality Disorder

3- Obsessive Compulsive Disorder

4- Borderline Personality Disorder

**5- Dependent Personality Disorder**

Q1640. A 26 year old female is admitted to a general surgery ward with abdominal pain. She is hysterical on admission due to the pain. There is no evidence of guarding. On the ward she is loud and lively. She is flirtatious with the male doctors and nurses and tells the other patients that one of the handsome young doctors has asked her out. She recently quit her job as she states they did not appreciate her and criticised her work. Which of the following is the most likely diagnosis?

1- Narcissistic Personality Disorder

2- Dependent Personality Disorder

3- Nil

4- Borderline Personality Disorder

**5- Histrionic Personality Disorder**

Q1641. Which of the following is false regarding obsessive compulsive disorder?

1- Clomipramine may be trialed if SSRIs dont prove effective

2- CBT is an effective treatment

**3- The dose of SSRI needed to treat OCD is lower than depression**

4- The chance of developing OCD is increased if you have a first degree relative

5- Surgery on the cingulate cortex is a last resort but effective treatment in 30% of patients

Q1642. A 24 year old male presents to his GP to talk about the messages that he receives through a chip in his fillings. The chip can control his thoughts and his movements. He believes that he is being used by an unknown power for an unknown mission. This has occurred for 4 months but it has only troubled him recently. What is the diagnosis?

**1- Schizophrenia**

2- Depression

3- Bipolar syndrome

4- Normal

5- Personality disorder

Q1643. A 41 year old complains of low mood and problems sleeping which get a lot worse during the winter months. The rest of the history and examination reveal nothing of note. What is the likely diagnosis?

1- Bipolar

**2- Seasonal affective disorder**

3- Normal

4- Dysthymia

5- Depression

Q1644. Which of the following is not commonly found in a manic episode of bipolar disorder?

**1- Visual Hallucinations**

2- Low attention span

3- Elevated mood

4- Hypersexuality

5- Pressured speech

Q1645. A 71 year old lady was attacked 9 months ago. Ever since she describes flash backs and nightmares about the event. She avoids going out unless she has to and feels anxious a lot of the time. What is the likely diagnosis?

1- Agoraphobia

**2- Post traumatic stress disorder**

3- Depression

4- Generalised anxiety disorder

5- Acutre stress disorder

Q1646. A 29 year old woman complains of headaches, upset stomach, jaw pain, sore muscles and difficulty sleeping. Full examination reveals no medical issues. She doesnt accept that nothing was found during the investigations and seeks a second opinion. What is the diagnosis?

1- Conversion disorder

**2- Somatisation disorder**

3- Hypochondriac

4- Psychosis

5- Personality disorder

Q1647. A 24 year old female presents to her GP with feeling anxious. On further questioning she states she is constantly ruminating about things. On numerous occasions she constantly obsesses about whether or not she has locked the doors or switched off the gas and she has to go back three or four times to check if this is the case. She has also had repeated images of violent acts which she tries to resist but cannot. What is the most likely diagnosis?

**1- Obsessive compulsive disorder**

2- Schizophrenia

3- Depressive disorder

4- Obsessional personality

5- Anxiety

Q1648. Which of the following could be used to distinguish dementia from severe depression

**1- Grasp reflex**

2- Visual disturbance

3- Weight loss

4- Weight gain

5- Testosterone level testing

Q1649. Which of the following indicates a high risk of successfully completing suicide?

1- Previous diagnosis of bipolar disease

2- Alcoholism

**3- Previous unsuccessful attempt**

4- Father killed himself

5- Female sex

Q1650. You are asked to assess a patient that believes he is an angel sent from heaven. He is talking rapidly, and repeatedly jumps between subjects during your assessment. What term describes this continual change of subject?

1- Neologism

**2- Flight of ideas**

3- Word salad

4- Delusions of grandeur

5- Clang association

Q1651. A 50 year old male comes to the clinic claiming his ears look large. He has 12 documented visits to medical services over the past year, all about this problem. On examination he is of completely normal appearance, with normal sized ears. This is explained to him, but he is absolutely insistent that they are too large. Apart from this he has no past medical history of note, and holds down a job running a small printing firm.

1- Depression

2- Somatisation disorder

3- Obsessive compulsive disorder

**4- Body dysmorphia**

5- Munchausens disease

Q1652. Which of the following is characteristic of Lewy Body dementia?

**1- Fluctuating mental state**

2- Hypersensitive to SSRIs

3- Auditory hallucinations

4- Aphasia

5- Symptoms worse on exertion

Q1653. An elderly man is on the ward due to a left sided pneumonia. He becomes acutely distressed and punches a nurse. His notes state that he drinks 4 pints of beer a day. On examination his temperature is 38.1 C, BP is 110/60 mmHg, pulse is 95/min and regular, there is consolidation at his left lung base, his white cell count is raised significantly and renal function is impaired. What has caused his symptoms?

1- Delirium tremens

2- Undiagnosed dementia

3- Korsakoffs psychosis

**4- Delirium secondary to infection**

5- Wernickes encephalopathy

Q1654. A 68 year old woman that drink 4 glasses of wine per evening is admitted to hospital. Her history includes controlled hypertension and a previous admission for a urinary tract infection. The nurses ask you to see her as she appears to be acting strangely. She has a slightly lowered haemoglobin but the rest of her bloods are normal. Which of the following symptoms would strongly suggest alcohol withdrawal?

1- Aphasia

2- Hearing the voice of her mother

3- Delusions about being an angel

**4- Insects crawling up the walls**

5- Amnesia

Q1655. You are asked to see a patient in A&E that has been brought in by the police after arresting him for a minor offence. He is 20 years old, has slept rough since leaving home aged 15 and freely admits to heroin use. He describes three unknown voices that talk about plans they are making to hurt him and is convinced that cigarette packets contain messages that only he can see. Nothing of noted on examination. What is the most likely diagnosis?

1- Personality disorder

2- Drug induced psychosis

**3- Schizophrenia**

4- Schizo affective disorder

5- Bipolar disorder

Q1656. A 41 year old female presents to her GP with low mood, poor concentration, problems sleeping and no interest in any of her hobbies which she cant shake. She doesnt appear as well dressed as she normally would be and her mini mental state score is 25/30. Blood tests including thyroid function are normal. Which of the following is most likely?

1- Picks disease

2- Early onset dementia

3- Anxiety disorder

**4- Depression**

5- Alcohol excess

Q1657. A 25 year old former soldier presents with insomnia, low mood and nightmares that wake him. He has been formally discharged at his own request from the army for 6 months and has been unable to hold down a job since. He describes witnessing a series of bomb explosions in which many of his colleagues lost their lives or were brutally injured and cannot stop repeating them in his head. What is the most likely diagnosis?

1- Schizophrenia

2- Personality disorder

3- Depression

**4- Post traumatic stress disorder**

5- Acute stress disorder

Q1658. A 29 year old man is brought in by his friends. He claims that his phone is allowing the government to read his thoughts and his girlfriend cheated on him with someone from the government. His history notes a previous diagnosis of anxiety 5 years previous that was not treated. He has returned from a trip to Africa with his friends and on the trip they used mefloquine for malaria prevention, used cannabis and drank excessively. There is nothing else of note. What is the diagnosis?

**1- Mefloquine induced psychosis**

2- Schizophrenia

3- Personality disorder

4- Acute alcohol withdrawal

5- Illicit drug use

Q1659. A lady is referred by her GP with visual hallucinations, periods of both mania and depression and a belief that her child is the messiah. She had given birth 5 days previously. What is the diagnosis?

**1- Postpartum psychosis**

2- Adjustment disorder

3- Postnatal depression

4- Bipolar disorder

5- Baby blues

Q1660. A man presents to his GP on the insistence of his girlfriend. He was in a motorcycle accident in which another friend died 4 months previous and since then he has been low in mood and now hears the voice of his dead mother. He has lost 8 kilos in weight. Examination and blood tests reveal nothing. What is the likely diagnosis?

1- Post traumatic stress disorder

2- Post concussion syndrome

3- Adjustment disorder

4- Bipolar disorder

**5- Psychotic depression**

Q1661. Which symptom is more common with haloperidol when compared to olanzapine?

1- Increased incidence of diabetes

2- Auditory hallucinations

3- Weight gain

**4- Akathisia**

5- Delusions

Q1662. What is the best treatment for severe agitation in an elderly patient overnight?

**1- Haloperidol**

2- Diazepam

3- Doxylamine

4- Temazepam

5- Chlorpromazine

Q1663. Which is not a side effect of lithium?

1- Polyuria

**2- Red eye**

3- Hypothyroidism

4- Weight gain

5- Tremor

Q1664. Which of the following suggests a poor prognosis at the first episode of schizophrenia?

1- ADHD diagnosis

2- A recent bereavement

3- A family history of depression

**4- Low intelligence**

5- Sudden onset

Q1665. Which is the strongest indicator of schizophrenia?

**1- Lack of insight**

2- Auditory hallucinations

3- Agitation

4- Social isolation

5- Headaches

Q1666. A 24 year old unemployed gentleman presents to his GP complaining that aliens are beaming rays to his head that insert thoughts and pass on his own thoughts to them. He can hear voices discussing what they are going to do to hurt him and he describes an unknown force that can move his fingers out with his control. He states that when they are inserting thoughts he can taste an indescribable taste. It started 6 months ago and he thinks that his GP could help him capture his thoughts again. Examination is unremarkable. What is the diagnosis?

1- Major depression

**2- Paranoid schizophrenia**

3- Bipolar disorder

4- Schizotypal personality disorder

5- Drug induced psychosis

Q1667. Which of the following is false regarding obsessive compulsive disorder?

1- CBT is an effective treatment

2- The chance of developing OCD is increased if you have a first degree relative

**3- The dose of SSRI needed to treat OCD is lower than depression**

4- Clomipramine may be trialed if SSRIs dont prove effective

5- Surgery on the cingulate cortex is a last resort but effective treatment in 30% of patients

Q1668. You have been asked to see a 41 year old patient with pain in their left eye. She has long standing depression and has recently been changed from fluoxetine to imipramine. What is the next best step?

1- CT head

2- Stop the imipramine, restart fluoxetine and refer back to their psychiatrist

**3- Urgent opthalmological review**

4- Consider the pain in psychological terms and explore a diagnosis of malingering

5- Analgesia

Q1669. A 68 year old man is agitated and is suffering from insomnia during a hospital admission for an elective operation. He is very sensitive to noise and bright lights, and complains of sore muscles. He has a long history of anxiety and controlled hypertension. Examination and blood results are normal. What is the most likely problem?

1- PTSD

2- Sepsis

**3- Benzodiazepine withdrawal**

4- Anaesthetic reaction

5- Anxiety

Q1670. Which of the following gives the strongest indication that a suicide attempt was serious and not a cry for help?

1- Taking excessive amounts of paracetamol as the method

2- Drug addiction

3- Did not make any final plans such as making a will or leaving a note

**4- Timed so that intervention is highly unlikely and takes measures to prevent discovery or intervention**

5- Phoned the samaritans during the act

Q1671. Which of the following would suggest delirium rather than dementia?

1- Confused more about the present than the past

2- Shouting

**3- Fluctuating level of consciousness**

4- No tearfulness

5- Low MMSE score

Q1672. You are asked to see an 81 year old woman by her daughter. The daughter explains that her mother was started on haliperidol 3 days earlier and has become feverish and extremely confused. The daughter describes a progressive change in the mothers personality over the past 3 years. What is the most likely diagnosis?

1- Stroke

2- TIA

3- Alzheimers

4- Delerium

**5- Neuroleptic malignant syndrome**

Q1673. Which of the following is not commonly found in a manic episode of bipolar disorder?

**1- Visual hallucinations**

2- Elevated mood

3- Pressured speech

4- Hypersexuality

5- Low attention span

Q1674. Which of the following is common secondarily to alcohol abuse?

**1- Morbid jealousy**

2- Lower levels of bipolar syndrome

3- Agorophobia

4- Increased creativity

5- Depression

Q1675. Which of the following supports a diagnosis of alcohol dependence syndrome?

1- Drinking a variety of alcohol types

2- Drinking despite criminal convinctions related to drink

**3- Continued drinking despite physical harm**

4- History of falls

5- Morbid jealousy

Q1676. Which of the following suggests a good prognosis for anorexia?

1- Weight loss has not been severe

2- Adult onset

3- They do not exercise excessively

**4- Short duration**

5- No history of psychological problems

Q1677. What is the most common presenting symptom of anorexia nervosa?

1- Damaged teeth

2- Peripheral oedema

**3- Excessive physical activity**

4- Amenorrhoea

5- Social isolation

Q1678. A 31 year old woman attends her GP as she cant stop worrying about most things in her life. She is worried about her job as she cannot concentrate and thinks she will be fired soon. She feels low in mood, cannot sleep well and hasnt been socialising for at least 9 months. What is the likely diagnosis?

**1- Generalised anxiety disorder**

2- Panic disorder

3- Social anxiety disorder

4- Depression

5- Agoraphobia

Q1679. A 41 year old complains of low mood and problems sleeping which get a lot worse during the winter months. The rest of the history and examination reveal nothing of note. What is the likely diagnosis?

1- Normal

**2- Seasonal affective disorder**

3- Bipolar disorder

4- Depression

5- Dysthymia

Q1680. A 31 year old man is brought to see you by the police. He is unable to recall his name, address or any personal details. He is not agitated but is confused as to why he cannot recall the information. Recall tests show that he can form new memories. The next morning, he remembers who he is and that his company had just went bankrupt. He is low in mood but has no other problems. What is the diagnosis?

1- Major depression

2- Bipolar affective disorder

3- Catatonic state

**4- Dissociative amnesia**

5- Vascular dementia

Q1681. A 26 year old female presents to her GP, writing on paper, that she can no longer talk. She had no problems with her voice before and no medical history of note. She has recently lost her job and has recently been told her flat is being repossessed. A full examination is unremarkable. What is the most likely diagnosis?

1- Epilepsy

**2- Conversion disorder**

3- Hypochondriac

4- Stroke

5- Somatisation disorder

Q1682. A 29 year old woman complains of headaches, upset stomach, jaw pain, sore muscles and difficulty sleeping. Full examination reveals no medical issues. She doesnt accept that nothing was found during the investigations and seeks a second opinion. What is the diagnosis?

1- Psychosis

2- Hypochondriac

3- Conversion disorder

4- Personality disorder

**5- Somatisation disorder**

Q1683. A 39 year old male complains that in the past few weeks he has been losing control of his body. He describes an irregular movement that spreads throughout his body which he cannot stop. His history has nothing of note. What is the diagnosis?

1- Lewy body dementia

2- Early onset parkinsons disease

3- McLeod syndrome

4- Wilsons disease

**5- Huntingtons disease**

Q1684. A newborn baby has thin lips, a smooth philtrum, small eyes and a small head. Whilst examining him he suffers a seizure. What is the diagnosis?

**1- Fetal alcohol syndrome**

2- Down syndrome

3- Aarskog syndrome

4- Williams syndrome

5- Noonan syndrome

Q1685. A woman has not left her house for 2 months. The last time she was out she suffered a panic attack on the train and the thought of going out again makes her very anxious. What is the likely diagnosis?

1- Social phobia

**2- Agoraphobia**

3- Dissociative disorder

4- Psychosis

5- Hypomania

Q1686. A mother is concerned about her 6 year old son. He causes a lot of problems with his siblings, does not concentrate, is liable to emotional outbursts and teachers describe him as unruly. He has no medical problems and apart from being very active, his examination is otherwise normal. What is the most likely problem?

1- Aspergers

2- Learning difficulties

**3- Attention deficit hyperactivity disorder**

4- Tourettes syndrome

5- Early onset bipolar

Q1687. An 8 year old boy is falling behind at school. He was one of the brightest in the class but has become quiet and unconfident, especially during English lessons. There is no history of note and physical examination is unremarkable. What is the likely diagnosis?

1- Conduct disorder

2- Dyslexia

3- Normal

4- Asperger syndrome

**5- ADHD**

Q1688. Which of the following would be used to describe the inability to form new memories?

1- Prosopamnesia

**2- Anterograde amnesia**

3- Retrograde amnesia

4- Lacunar amnesia

5- Source amnesia

Q1689. During her parents divorce, a 12 year girl spent 2 days crying a lot, not speaking or communicating in any way. Since then she avoids confrontation and if the divorce is brought up she becomes extremely emotional. What is the diagnosis?

1- Reactive anxiety disorder

2- Lacunar amnesia

3- Depression

4- General anxiety disorder

**5- Repression**

Q1690. Which of the following demonstrates the Premack principle?

1- No longer rewarding a child for doing their homework

2- Taking away a childs toy until it has done its homework

3- Taking away a childs toy when it is bad

**4- Giving a child a new toy if it has done its homework**

5- A child achieving a reward which they didnt realise they could earn

Q1691. Which is an example of social learning?

**1- When a child starts to pretend to use a sword after seeing one in a film**

2- When a group solve a problem together

3- Using Facebook to study

4- When a community spread a message, such as a warning, between each other

5- Reading your friends study notes

Q1692. What is the Garcia effect?

1- Avoidance of something due to an irrational thought or idea

**2- An avoidance reaction based on a previous negative reaction to the taste of something**

3- The term used to describe the enamel damage from repeated vomiting

4- When an anorexic patient feigns weight gain to pretend they are complying with treatment

5- A term used when a bulimic patient gains weight despite frequent purging

Q1693. Who would be most likely to suffer anaclitic depression?

**1- Orphan**

2- An elderly man in a care home

3- A new mother

4- A new father

5- A newly widowed man

Q1694. A child has not started to babble. At which age should a child start babbling 2 or 3 words repeatedly?

1- 10 to 12 weeks

**2- 1 year**

3- 4 months

4- 18 months

5- 2 years

Q1695. Which of the following is NOT associated with tuberose sclerosis?

1- Hypomelanic macules

**2- Glossitis**

3- Epilepsy

4- Kidney tumours

5- Learning difficulty

Q1696. Which of the following is NOT a feature of Prader Willi syndrome?

1- Obesity

2- Mental retardation

3- Short stature

4- Undescended testicles

**5- Hypertonia**

Q1697. Which of the following is NOT a feature of Lesch Nyhan syndrome?

1- Hypotonia

2- Self mutilating behaviour

3- X linked genetic inheritance

**4- Long limbs**

5- High levels of serum uric acid

Q1698. What is the most common inherited cause of severe intellectual impairment?

1- Prader Willi syndrome

2- Down's Syndrome

3- Turner Syndrome

**4- Fragile X syndrome**

5- Lesch Nyhan syndrome

Q1699. Which of the following is strongly linked with Alzheimers?

1- Fragile X syndrome

2- Lesch Nyhan syndrome

**3- Downs syndrome**

4- Rett syndrome

5- Marfan syndrome

Q1700. Which of the following is a long acting opioid antagonist ?

**1- Naltrexone**

2- Nalorphine

3- Oxymorphone

4- Naloxone

5- Buprenorphine

Q1701. What is acamprosate used for?

1- Maintaining abstinence from benzodiazepines

2- Inducing rapid alcohol withdrawal

3- Alcohol intoxication

4- Smoking cessation

**5- Maintaining abstinence from alcohol**

Q1702. Which of the following is NOT as use for bupropion?

1- Anxiety

**2- Anorexia nervosa**

3- Smoking cessation

4- Seasonal affective disorder

5- Depression

Q1703. What is Disulfiram used for?

**1- Treatment of alcohol dependence**

2- Prevention of Wernickes encephalopathy

3- Treatment of opioid dependence

4- Reversal of alcohol intoxication

5- Treatment of delerium tremens

Q1704. A patients father has Huntingtons disease. What is the chance of them having the disease?

1- 75%

2- 25%

3- 100%

**4- 50%**

5- 0%

Q1705. Which of the following would be prescribed for ADHD?

1- Calpol

2- Fluoxetine

3- Lorazepma

**4- Methylphenidate**

5- Modafinil

Q1706. A 31 year old lady avoids leaving her house unless she has to. She has gained a lot of weight and thinks that people talk about her when they see her. When she does leave the house, she does it at times when she thinks the neighbours will not see her. She knows her reaction is excessive but she cant control how she feels. What is the diagnosis?

1- Depression

2- Agoraphobia

3- Delusional disorder

4- Bipolar disorder

**5- Social phobia**

Q1707. Which has the highest mortality?

**1- Anorexia nervosa**

2- Depression

3- Alcoholism

4- Prescription medication addiction

5- Schizophrenia

Q1708. What percentage of people with anorexia nervosa are male?

1- 1%

2- 35%

3- 50%

**4- 10%**

5- 1 to 5%

Q1709. How common is the baby blues?

1- All new mothers

**2- Less than 50 to 60% of new mothers**

3- 10 to 20% of new mothers

4- 25 to 40% of new mothers

5- Less than 5 % of new mothers

Q1710. What receptor does buspirone exert it action?

1- Noradrenaline

**2- Serotonin**

3- GABA

4- Adenosin

5- Histamine

Q1711. A 34 year old female presents with a week long history of nausea, headache and muscle spasms. A full history reveals depression treated with fluoxetine and examination is unremarkable. What physiological imbalance could be the cause?

**1- Hyponatraemia**

2- Hypokalaemia

3- Hypernatraemia

4- Hyperkalaemia

5- Hypomagnesaemia

Q1712. Which of the following herbal medicines cannot be taken with antidepressants?

1- Kelp

2- Chondroitin sulfate

3- Royal Jelly

4- Grape seed extract

**5- St Johns wort**

Q1713. What medication type is the first line treatment for schizophrenia?

1- Depot typical antipsychotic

2- Oral typical antipsychotic

**3- Oral atypical antipsychotics**

4- Depot atypical antipsychotic

5- Fluoxetine

Q1714. What term describes the feeling that some aspect is under external control?

1- Delusional perception

2- Perseveration

**3- Passivity**

4- Echopraxia

5- Somatic passivity

Q1715. Which of the following is a clear indication for electroconvulsive therapy?

1- Lack of response to a single antidepressant

2- Maintenance therapy when there has been previous positive response to ECT

3- A patient that doesnt like taking oral medication

**4- Refusing to eat or drink**

5- Schizophrenia

Q1716. Which of the following IQ ranges define moderate mental retardation

**1- 35 to 49**

2- 70 to 99

3- 0 to 19

4- 50 to 69

5- 20 to 34

Q1717. What treatment should be administered for an aggressive, potentially psychotic patient with no history of mental illness?

1- Quetiapine

2- Clozapine

**3- Lorazepam**

4- Haloperidol

5- Diazepam

Q1718. A middle aged man attends with erectile dysfunction. He spontaneously achieves morning erections but has problems with his new partner. What is the most appropriate treatment?

**1- Talking therapy**

2- Intraurethral administration of alprostadil

3- Sildenafil

4- Intracavernosal injections of alprostadil

5- Vardenafil

Q1719. A patient cannot stay still. He is agitated, uncomfortable, will not sit down and rocks from foot to foot. What is wrong?

1- Tardive dyskinesia

2- Tardive dystonia

3- Acute dystonic reaction

4- Psychosis

**5- Akathisia**

Q1720. Which is sign of an abnormal grief reaction?

1- Poor memory

2- Hallucinations in which a dead person is seen

**3- No grief after 4 weeks**

4- Reduced appetite

5- Weeping

Q1721. Which of the following is FALSE regarding tardive dyskinesia?

1- Clozapine is less likely to cause tardive dyskinesia than haliperidol

2- Facial writhing and grimacing is a common feature

3- Can be caused by metoclopramide

4- If it occurs it may be permanent

**5- It occurs within days of antipsychotic treatment**

Q1722. A child is brought to your attention with an elongated face, prominent ears, difficulty interacting with others and annoyance if he cannot perform certain rituals. He is extremely shy and on examination he is hypotonic. Which single investigation should be carried out next?

1- Echocardiogram

2- Serum urea

3- CT head

4- MRI abdo

**5- Chromosomal analysis**

Q1723. Which of the following suggests a true epileptic seizure rather than a psychogenic non epileptic seizure?

**1- A rise in serum prolactin following the seizure**

2- Closed eyes during the seizure

3- Incontinence

4- Gradual onset

5- Biting the tip of their tongue

Q1724. Regarding buspirone, which of the following statements is false

1- Indicated for generalised anxiety disorder

2- Contraindicated for epileptics

3- Contraindicated for asthmatics

**4- Severe withdrawal symptoms**

5- Causes hyperprolactinaemia

Q1725. Which of the following is a feature of delirium and schizophrenia?

1- Inappropriate emotional state

**2- Hallucinations**

3- Altered sleep wake cycle

4- Involuntary movements

5- Ptosis

Q1726. If lithium fails, what is the next treatment of choice for bipolar syndrome?

1- Oxcarbazepine

2- Risperidone

**3- Valproate**

4- Imipramine

5- Quetiapine

Q1727. A 6 year old girl is brought to her GP by her mother. She is performing poorly at school, often appears absent and doesnt follow instructions. She gets on well with her brother and plays happily during the consultation. Intelligence tests do not pick up any problems and there are no characteristic facial features. Which test would you arrange?

1- Visual tests

**2- Hearing test**

3- Chromosomal testing

4- EEG

5- Allergy testing

Q1728. Which of the following is characteristic of antisocial personality disorder?

1- Attention seeking behaviour

2- Poor school performance

3- A belief that they are better than everyone else

**4- Callous unconcern for the feelings of others and lack of the capacity for empathy**

5- Torturing animals as a child

Q1729. Which of the following has the highest suicide risk for patients with major depression?

**1- The first few weeks of SSRI treatment**

2- Immediately after ECT

3- When they identify the source of the depression

4- When lowering the dose of SSRI

5- At the start of CBT

Q1730. A man is not comfortable unless he is wearing female underwear although he dresses normal otherwise. He has mostly female friends but avoids sexual relationships. What is the likely condition?

1- Transvestic fetishism

2- Voyeurism

3- Normal varient

4- Homeovestism

**5- Gender identity disorder**

Q1731. An woman presents to her GP with problems sleeping, low self esteem, anhedonia and cannot stop thinking about regrets she has. She thinks that she caused the death of many people but cannot explain how. Her notes reveal that this has happened three times previously and she has never had a manic episode. Between episodes she describes herself as happy with no symptoms. What is the diagnosis?

1- Bipolar disorder

**2- Major depressive disorder**

3- Normal

4- Dysthymia

5- Schizophrenia

Q1732. A man presents with a 24 hour history of restlessness, excessive sweating and shaking. Whilst waiting he has a seizure. What is the likely cause?

1- Epilepsy

2- Cocaine withdrawal

**3- Benzodiazepine withdrawal**

4- DKA

5- Heroin withdrawal

Q1733. A patient presents with features of Bipolar disorder. Which of the following should be utilised as a mood stabiliser?

1- Citalopram

2- Olanzapine

3- Quetiapine

**4- Lithium**

5- Risperidone

Q1734. Which of the following medications is mostly likely to cause galactorrhoea as a side effect?

1- Quetiapine

**2- Risperidone**

3- Olanzapine

4- Fluoxetine

5- Clozapine

Q1735. Which of the subtypes of schizophrenia is characterised by prominent thought disorder, abnormal behaviour and a flat or inappropriate affect?

1- Undifferentiated schizophrenia

2- Catatonic schizophrenia

**3- Hebephrenic or disorganised schizophrenia**

4- Paranoid schizophrenia

5- Residual schizophrenia

# Chapter 12 Respiratory

Q1736. ReviseMRCP - Respiratory A 33 year old male with HIV presents unwell. He has a cough productive of green sputum, is short of breath and is pyrexial. He is noticed to desaturate on minimal exertion. On examination there is a few crackles bibasally. A chest X ray reveal perihilar bilateral diffuse infiltrates. What is the most likely diagnosis?

1- Mycoplasma pneumoniae pneumonia

2- Legionella

3- Klebsiella pneumoniae pneumonia

**4- Pneumocystis jiroveci pneumonia**

5- Staphylococcus aureus pneumonia

Q1737. ReviseMRCP - Respiratory A 28 year old gentleman has a long history of rhinitis and asthma. However he now presents with haemoptysis. He has also noticed a rash and severe pain which he states feels like sciatica. He is feeling generally unwell with fatigue, myalgia and weight loss. On examination he is hypertensive and there is a purpuric rash. Bloods reveal acute renal failure and elevated inflammatory markers and eosinophil count. Given the most likely diagnosis, which antibody is likely to be present?

**1- pANCA**

2- cANCA

3- Anti Ro

4- Rheumatoid factor

5- Anti dsDNA

Q1738. ReviseMRCP - Respiratory A 28 year old gentleman has a long history of rhinitis and asthma. However he now presents with haemoptysis. He has also noticed a rash and severe pain which he states feels like sciatica. He is feeling generally unwell with fatigue, myalgia and weight loss. On examination he is hypertensive and there is a purpuric rash. Bloods reveal acute renal failure and elevated inflammatory markers and eosinophil count. What is the most likely diagnosis?

1- SLE

2- Malignancy

**3- Churg Strauss Syndrome**

4- Wegeners Granulomatosis

5- Polyarteritis Nodosa

Q1739. ReviseMRCP - Respiratory A 28 year old female presents with acute onset of shortness of breath and pleuritic chest pain. She has just recently flew back from Australia . She has no past medical history although she is on the contraceptive pill. On examination there is evidence of a swollen tender left calf. On auscultation of the chest it is clear however she is tachycardic. A CXR reveal nil focal. What is the most likely diagnosis?

**1- Pulmonary embolus**

2- Asthma

3- Myocardial infarction

4- Deep vein thrombosis

5- Pneumothorax

Q1740. ReviseMRCP - Respiratory A patient is brought in following a collapse. He complained of sudden onset shortness of breath and pleuritic chest pain. On examination his trachea is deviated to the left and there is hyperresonance on the right side of his chest. What is the next appropriate management step?

1- CXR

**2- Large bore cannula in right second intercostal space mid-clavicular line**

3- Chest drain

4- CT chest

5- Large bore cannula in left second intercostal space mid-clavicular line

Q1741. ReviseMRCP - Respiratory A 50 year old gentleman presents with a dry cough and shortness of breath. On CXR there is numerous nodules. A biopsy is taken and reveals multinucleated Langerhans cells, Birbeck granules and CD1a and S100 protein. What is the most likely diagnosis?

1- Lung metastases

2- Large cell lung cancer

**3- Histiocytosis X**

4- Small cell lung cancer

5- Carcinoid

Q1742. ReviseMRCP - Respiratory Which of the following has been proven to improve survival in COPD?

1- Salbutamol nebulisers

2- Nil

3- Salbutamol in haler

**4- Long term oxygen therapy**

5- Steroids

Q1743. ReviseMRCP - Respiratory A 52 year old gentleman presents with unwell with a cough productive of green sputum with occasional blood flecks. He is also complaining of shortness of breath and has a cold sore. On examination he is pyrexial, tachypneoic, tachycardic and there is left basal coarse crackles. What is the most likely diagnosis?

**1- Pneumonia due to streptococcus pneumoniae**

2- Pneumonia secondary to coxiella burnetii Mycoplasma pneumoniae

3- Pneumonia due to staphylococcus aureus

4- Pneumonia secondary to H. Influenzae Klebsiella pneumoniae

5- Viral Pneumonia

Q1744. ReviseMRCP - Respiratory A 32 year old presents with a one week history of malaise, fever, headache, myalgia with a sore throat, dry cough and pleuritic chest pain. On examination there is bibasal crepitations. There is evidence of erythema nodosum and bloods reveal a haemolytic anaemia and cold agglutinins. What is the most likely causative agent?

**1- Mycoplasma Pneumoniae**

2- Streptococcus Pneumoniae

3- Coxiella Burnetti

4- Influenza B 5- H. Influenzae

Q1745. ReviseMRCP - Respiratory A patient who was previously a coal miner is found on chest xray to have numerous small round opacities with normal lung markings. What is the most likely diagnosis?

1- Simple pneumoconiosis category 1

2- Progressive massive fibrosis

3- Silicosis

**4- Simple pneumoconiosis category 2**

5- Simple pneumoconiosis category 3

Q1746. ReviseMRCP - Respiratory A 70 year old patient who was previously a coal miner presents with significant dyspnoea and a cough which is sometimes productive of black sputum. On CXR there is large round fibrotic masses in the upper lobes. What is the most likely diagnosis?

1- Simple pneumoconiosis category 3

**2- Progressive massive fibrosis**

3- Silicosis

4- Simple pneumoconiosis category 1

5- Simple pneumoconiosis category 2

Q1747. ReviseMRCP - Respiratory Which of the following is not a feature of ARDS?

**1- Protein low fluid in alveolar space**

2- Protein rich fluid in alveolar space

3- Refractory hypoxia

4- Bilateral diffuse infiltrates on chest xray

5- No evidence of cardiac failure

Q1748. ReviseMRCP - Respiratory A 25 year old female presents with dry cough, fever and shortness of breath. She has also been suffering from night sweats and malaise. She has also noticed bruise like lesions on her shins. She is found to have an elevated ESR and a CXR reveals bilateral hilar lymphadenopathy, a pleural effusion and evidence of reticulo nodular shadowing in the upper lobes. What is the most likely diagnosis?

1- Tuberculosis

2- Lymphoma

**3- Sarcoidosis**

4- Lung cancer

5- Rheumatoid arthritis

Q1749. ReviseMRCP - Respiratory A 25 year old female has an acute asthma attack. She is tachycardic and is tachypnoeic with a respiratory rate of 35. On auscultation she is very wheezy but is beginning to tire. Her peak flow is about one third of her normal. She is commenced on both salbutamol and ipratropium nebulisers and IV hydrocortisone and IV magnesium sulphate however has not greatly improved. Her gases reveal a high normal CO2 level and low normal O2 level on a trauma mask. Which of the following is the next step in her management?

1- IV salbutamol

2- BiPAP

3- CPAP

4- IV aminophylline

**5- Intubation and ventilation**

Q1750. ReviseMRCP - Respiratory A 42 year old male is admitted for treatment of a community acquired pneumonia. He had been making a good recovery when 3 days into admission he spikes a temperature and is complaining of pleuritic chest pain. A CXR reveals a right sided pleural effusion. What investigation should be performed to confirm the diagnosis?

1- Blood cultures

**2- Pleural tap**

3- Repeat CXR

4- Sputum culture

5- Pleural ultrasound

Q1751. ReviseMRCP - Respiratory A 22 year old female who has previously suffered from panic attacks presents with acute shortness of breath, palpitations, perioral tingling and paraesthesia in hands and chest tightness. Given the most likely diagnosis, what would you expect to observe on blood gas?

1- Metabolic acidosis

2- Low O2

3- High O2

**4- Low CO2**

5- High CO2

Q1752. ReviseMRCP - Respiratory What percentage increase in FEV1 post bronchodilator, is required for the diagnosis of asthma?

**1- >12%**

2- >20%

3- >10%

4- >5%

5- >25%

Q1753. ReviseMRCP - Respiratory A 42 year old with Rheumatoid arthritis presents with increasing dyspnoea and a non productive cough. A CXR reveals diffuse reticular opacities and pulmonary functions tests reveal a restrictive pattern. What is the most likely diagnosis?

1- COPD

2- Asthma

**3- Interstitial lung disease**

4- Bronchiolitis obliterans with organising pneumonia

5- Caplans Syndrome

Q1754. ReviseMRCP - Respiratory A 45 year old patient with rheumatoid arthritis has relapsing pneumonia which does not respond to antibiotics. A CXR reveals bilateral parenchymal opacities. A lung biopsy is performed and reveals buds of connective tissue within terminal bronchioles and alevolar ducts. What is the most likely diagnosis?

1- Malignancy

2- Caplans syndrome

3- Interstitial lung disease

4- COPD

**5- Bronchiolitis obliterans organising pneumonia**

Q1755. ReviseMRCP - Respiratory Which of the following is most useful in differentiating ARDS from cardiogenic pulmonary oedema?

1- Bilateral Infiltrates

**2- Pulmonary catheter wedge pressure <19mmHg**

3- Refractory hypoxia

4- No history of CCF

5- Acute onset

Q1756. ReviseMRCP - Respiratory A 35 year old male who is a non smoker presents with increasing shortness of breath. He complains of a productive cough especially over the winter months. Pulmonary function tests reveal an obstructive pattern. He states his father and grandfather both had "problems with their breathing". What is the most likely diagnosis?

**1- Alpha 1 antitrypsin deficiency**

2- Malignancy

3- Asthma

4- Multiple recurrent pulmonary emboli

5- COPD

Q1757. ReviseMRCP - Respiratory A 52 year old gentleman who is homeless and known to drink excessively presents with fever and a cough productive of green sputum which is blood tinged. A CXR reveals consolidation in the right upper lobe with evidence of cavitation. Which of the following is the most likely causative agent?

1- Staphylococcus aureus

2- Streptococcus Pneumoniae

**3- Klebsiella Pneumoniae 4- M. Tuberculosis**

5- Mycoplasma pneumoniae

Q1758. ReviseMRCP - Respiratory A 66 year old male is brought in with severe pneumonia. He is in type 1 respiratory failure with an O2 level of 6.9 kPa. He is normally fit and well and is only on antihypertensives. He states he does not want to be on a "life support machine". He requires intubation. What should be done next?

1- Consent from family

2- Do not intubate and continue other management

**3- Intubate**

4- CPAP

5- Stop all management

Q1759. reveals a normal FEV1/FVC ratio and reduced gas transfer. What is the most likely diagnosis?

1- Bronchial carcinoma

**2- Pulmonary fibrosis secondary to Bleomycin**

3- Asthma

4- Pulmonary fibrosis secondary to Hodgkins Lymphoma

5- COPD

Q1760. ReviseMRCP - Respiratory Which of the following is not a poor prognostic factor for pneumonia?

1- Age 72

2- Systolic BP 88mmHg

3- Confusion

4- Urea of 7.2 mmol/L

**5- Respiratory rate of 28**

Q1761. ReviseMRCP - Respiratory A 52 year old presents with normally well controlled asthma presents with, shortness of breath, wheeze and nocturnal cough. He has noticed coughing up blood on several occasions. He also complains of feeling generally unwell with a headache and fever. Bloods reveal an elevated eosinophil count and IgE. A CXR reveals new infiltrates. Which of the following will confirm the diagnosis?

1- Lung biopsy

2- Autoantibodies

3- Pulmonary function tests

4- High resolution CT

**5- Serology for aspergillus precipitins**

Q1762. ReviseMRCP - Respiratory In regards to cryptogenic fibrosing alveolitis, which of the following is not true?

1- Reduced FEV1

2- Normal to high FEV1/FVC

3- Reduced FVC

4- Poor lung compliance

**5- Reduced elastic recoil**

Q1763. ReviseMRCP - Respiratory Which of the following organisms is associated with a cavitating upper lobe pneumonia?

1- Pneumocystis jiroveci

**2- Klebsiella pneumonia**

3- Mycoplasma pneumoniae

4- Staphylococcus Aureus

5- Strep. Pneumoniae

Q1764. ReviseMRCP - Respiratory A 55 year old gentleman presents to his GP with haemoptysis. He had a previous history of tuberculosis. He has a cough and feels fevered at times. A chest xray reveals a cavitating lesion in the left upper lobe. Bloods reveal an elevated aspergillus precipitins. What is the most likely diagnosis?

1- Chronic necrotising aspergillosis

2- Bronchial carcinoma

3- Pneumonia

4- Tuberculosis

**5- Aspergilloma**

Q1765. ReviseMRCP - Respiratory The sniff test is useful in the diagnosis of which of the following?

1- Asthma

2- Guillain Barre syndrome

3- Pharyngeal pouch

**4- Phrenic nerve palsy**

5- COPD

Q1766. ReviseMRCP - Respiratory A 72 year old farmer presented with a history of massive haemoptysis. A CXR reveals a right upper lobe cavitating mass. His aspergillus precipitins are positive and a diagnosis of aspergilloma is made. If there is massive haemoptysis, in a patient with poor pulmonary reserve, what management should be initiated?

1- Itraconzole

2- Intracavitary amphotericin

**3- Bronchial artery embolisation**

4- Emergency surgery

5- Fluconazole

Q1767. ReviseMRCP - Respiratory A 48 year old gentleman presents with extreme tiredness and difficulty concentrating. His wife states he is irritable and he is a very loud snorer and occasionally chokes during the night. His libido is low, he is suffering from headaches and he has been falling asleep during the day as he feels very unrefreshed after his sleep. His BMI is 35. What is the most likely diagnosis?

1- Narcolepsy

2- Sleep deprivation

**3- Obstructive sleep apnoea**

4- Depression

5- Hypothyroidism

Q1768. ReviseMRCP - Respiratory A 48 year old gentleman presents with extreme tiredness and difficulty concentrating. His wife states he is irritable and he is a very loud snorer and occasionally chokes during the night. His libido is low, he is suffering from headaches and he has been falling asleep during the day as he feels very unrefreshed after his sleep. His BMI is 35. Given the most likely diagnosis, which of the following is not a risk factor?

**1- Diabetes**

2- Obesity

3- Sedative drugs

4- Smoking

5- Male

Q1769. ReviseMRCP - Respiratory A 48 year old gentleman presents with extreme tiredness and difficulty concentrating. His wife states he is irritable and he is a very loud snorer and occasionally chokes during the night. His libido is low, he is suffering from headaches and he has been falling asleep during the day as he feels very unrefreshed after his sleep. His BMI is 35. What investigation will give the diagnosis?

1- ABGs

2- CXR

3- Liver function tests

4- Thyroid function tests

**5- Polysomnography**

Q1770. ReviseMRCP - Respiratory Which of the following is not an absolute contraindications to CPAP?

1- Epistaxis

2- Pneumothorax

3- Basal Skull fracture

4- Facial burns

**5- COPD**

Q1771. ReviseMRCP - Respiratory In which of the following is CPAP contraindicated?

1- Active tuberculosis

2- Asthma

3- Hypovolaemia

**4- Basilar skull fracture**

5- Hypotension

Q1772. ReviseMRCP - Respiratory When a patient is diagnosed with COPD what is the most important step in management?

1- Tiotropium

2- LTOT

**3- Smoking cessation**

4- Salbutamol

5- CXR

Q1773. ReviseMRCP - Respiratory What is the most appropriate management of a DVT during pregnancy?

**1- Dalteparin**

2- Monitoring

3- Aspirin

4- Warfarin

5- IVC filter

Q1774. ReviseMRCP - Respiratory Which of the following leads to an elevated alveolar arterial O2 gradient?

1- Asthma

2- COPD

3- Kyphoscoliosis

**4- Pulmonary Embolism**

5- Bronchial Cancer

Q1775. ReviseMRCP - Respiratory Which of the following leads to hypoxia with a normal Aa gradient?

1- V/Q mismatch

**2- Hypoventilation**

3- Shunting

4- Pulmonary embolus

5- Diffusion Defect

Q1776. ReviseMRCP - Respiratory A patient is found to have chronic type 2 respiratory failure. Which one of the following is the most likely cause?

1- Pulmonary hypertension

2- Asthma

3- Recurrent pulmonary embolus

4- Pneumonia

**5- Kyphoscoliosis**

Q1777. ReviseMRCP - Respiratory Asthma leads to an increase in which of the following?

1- FVC

2- Gas transfer

3- None of these options

**4- Residual volume**

5- FEV1

Q1778. ReviseMRCP - Respiratory A 28 year old female presents to her GP as she has been suffering from epistaxis for numerous years and has been becoming increasingly short of breath. She is a non smoker and is otherwise well. On examination there is evidence of facial telangiectasia and clubbing. A CXR reveals a round mass which has a uniform density and is sharply defined, located in the left lower lobe. Gases reveal a type 1 respiratory failure. What is the most likely diagnosis?

1- Carcinoid tumour

**2- Pulmonary AV malformation**

3- Bronchial Carcinoma

4- Tuberculosis

5- Asthma

Q1779. ReviseMRCP - Respiratory Which of the following does not lead to upper lobe fibrosis?

**1- Scleroderma**

2- ABPA

3- Sarcoidosis

4- Tuberculosis

5- Extrinsic allergic alveolitis

Q1780. ReviseMRCP - Respiratory A 52 year old male who keeps pigeons presents to his GP. He states for some months he has had a productive cough, shortness of breath on exertion, fatigue, anorexia and has lost 2 stones in weight. On examination there is bibasal inspiratory crackles. A CXR reveals reticulonodular shadowing. Which of the following can aid in the diagnosis?

**1- Antigen specific IgG antibodies**

2- Sputum Culture

3- Eosinophil Count

4- Aspergillus precipitins

5- Full blood count

Q1781. ReviseMRCP - Respiratory A 52 year old male who keeps pigeons presents to his GP. He states for some months he has had a productive cough, shortness of breath on exertion, fatigue, anorexia and has lost 2 stones in weight. On examination there is bibasal inspiratory crackles. A CXR reveals reticulonodular shadowing. What is the most likely diagnosis?

1- Cardiac failure

**2- Extrinsic allergic alveolitis**

3- ABPA

4- Cryptogenic allergic alveolitis

5- Sarcoidosis

Q1782. psin deficiency?

1- Protects from neutrophil elastase

**2- Most commonly recessively inherited**

3- Liver is commonly involved

4- PiZZ genotype produces severe disease

5- Alpha 1 antitrypsin is a glycoprotein

Q1783. ReviseMRCP - Respiratory Which of the following does not lead to a pH of less than 7.2 in pleural effusion?

1- Malignancy

2- Rheumatoid arthritis

3- Tuberculosis

4- Empyema

**5- Congestive cardiac failure**

Q1784. ReviseMRCP - Respiratory Which of the following causes of pleural effusion leads to an elevated triglyceride and cholesterol level in the pleural fluid?

1- Pneumonia

2- Congestive cardiac failure

3- Rheumatoid disease

**4- Chylothorax**

5- Empyema

Q1785. ReviseMRCP - Respiratory Which of the following leads to low pleural effusion glucose levels?

1- Cirrhosis

2- Hypothyroidism

**3- Rheumatoid disease**

4- Parapneumonic

5- Congestive cardiac failure

Q1786. ReviseMRCP - Respiratory Which of the following is not a cause for transudative pleural effusion

1- Cirrhosis

**2- Pneumonia**

3- Hypothyroidism

4- Cardiac failure

5- Pulmonary embolism

Q1787. ReviseMRCP - Respiratory Which of the following is not a cause of an exudative pleural effusion?

1- Pancreatitis

**2- Hypothyroidism**

3- Malignancy

4- Tuberculosis

5- Pneumonia

Q1788. ReviseMRCP - Respiratory What is an appropriate treatment regime for someone diagnosed with pulmonary tuberculosis?

1- Initially rifampicin, isoniazid, ethambutol and pyrazinamide for 2 months then isoniazid an rifampicin for further 10 months.

2- Initially rifampicin, isoniazid, and ethambutol for 2 months then isoniazid an rifampicin for further 4 months.

3- Initially rifampicin, isoniazid, ethambutol and pyrazinamide for 6 months

4- Initially rifampicin, isoniazid, ethambutol and pyrazinamide for 4 months then isoniazid an rifampicin for further 2 months.

**5- Initially rifampicin, isoniazid, ethambutol and pyrazinamide for 2 months then**

isoniazid an rifampicin for further 4 months.

Q1789. ReviseMRCP - Respiratory What is an appropriate treatment regime for someone diagnosed with tuberculosis meningitis?

1- Initially rifampicin, isoniazid, ethambutol and pyrazinamide for 2 months then isoniazid an rifampicin for further 4 months.

2- Initially rifampicin, isoniazid, and ethambutol for 2 months then isoniazid an rifampicin for further 4 months.

3- Initially rifampicin, isoniazid, ethambutol and pyrazinamide for 4 months then isoniazid an rifampicin for further 2 months.

4- Initially rifampicin, isoniazid, ethambutol and pyrazinamide for 2 months then isoniazid an rifampicin for further 10 months.

**5- Initially rifampicin, isoniazid, ethambutol and pyrazinamide for 6 months**

Q1790. ReviseMRCP - Respiratory A 72 year old gentleman who was a retired insulator fitter. He is suffering from increasing shortness of breath and a dry cough. On examination there is evidence of bilateral inspiratory crackles and clubbing. CXR reveals pleural plaques and reticular shadowing at both bases. What is the most likely diagnosis?

**1- COPD**

2- Sarcoidosis

3- Pleural plaques

4- Asbestosis

5- Mesothelioma

Q1791. ReviseMRCP - Respiratory For LTOT the PaO2 must be less than?

1- 6.5kPa

2- 9 kPa

3- 7.8 kPa

4- 10kPa

**5- 7.3 kPa**

Q1792. ReviseMRCP - Respiratory In bronchiectasis which part of the airway is affected?

1- Alveoli

2- Terminal Bronchioles

3- Parenchyma

4- Trachea

**5- Bronchi**

Q1793. ReviseMRCP - Respiratory A 14 year old boy wo has previously had a staphylcoccal pneumonia presents with a chronic very purlent cough with occasional haemoptysis and chest pain. On examination there is bibasl coarse crackles. What is the most likely diagnosis?

1- Pneumonia

2- Asthma

3- Pulmonary embolus

**4- Bronchiectasis**

5- COPD

Q1794. ReviseMRCP - Respiratory Cystic fibrosis is most likely to lead to which form of bronchiectasis?

1- Mixed picture

**2- Saccular/Cystic**

3- Cylindrical

4- Nil

5- Varicose

Q1795. ReviseMRCP - Respiratory Which of the following is not an acute complication of pneumonia?

1- Acute renal failure

2- Sepsis

3- Pleural effusion

4- Empyema

**5- Bronchiectasis**

Q1796. ReviseMRCP - Respiratory In regards to cryptogenic fibrosing alveolitis, which of the following is not true?

**1- Reduced elastic recoil**

2- Reduced FVC

3- Reduced FEV1

4- Normal to high FEV1/FVC

5- Poor lung compliance

Q1797. ReviseMRCP - Respiratory Kartageners syndrome is a triad of primary ciliary dyskinesia, sinusitis and what?

1- Bronchiectasis

2- Dextrocardia

3- Yellow nails

**4- Situs Inversus**

5- Asthma

Q1798. ReviseMRCP - Respiratory A patient is found to have a pleural effusion. She states that she has also noticed she has put on some weight and feels her abdomen is swollen. On examination there is evidence of ascites and a large mass in her right iliac fossa. After removal of the mass her effusion and ascites resolve. What is the most likely diagnosis?

1- Pancreatic cancer

**2- Meigs syndrome**

3- Hepatoma

4- Ovarian carcinoma

5- Colorectal cancer

Q1799. ReviseMRCP - Respiratory A patient is in a fire and is suspected to have respiratory tract burns as she has burns to her face with singed eyebrows and nose hair and hoarseness. What investigation should be organised to assess for inhalational damage?

1- CXR

2- ABGs

3- CT Chest

4- Laryngoscopy

**5- Bronchoscopy**

Q1800. ReviseMRCP - Respiratory A patient who has been previously diagnosed with coal workers pneumoconiosis develops worsening shortness of breath and cough productive of black sputum. On CXR there is large nodular fibrotic masses in the upper lobes. What is the most likely diagnosis?

1- Caplans syndrome

2- Worsening pneumoconiosis

3- Tuberculosis

**4- Progressive massive fibrosis**

5- Klebsiella Pneumonia

Q1801. ReviseMRCP - Respiratory In progessive massive fibrosis, what would you expect to see in pulmonary function testing?

1- Reduced gas transfer only

2- No abnormalities

3- Restrictive pattern

4- Obstructive pattern

**5- Mixed obstructive and restrictive pattern**

Q1802. ReviseMRCP - Respiratory Caplans syndrome refers to?

1- Bronchial cancer secondary to pneumoconiosis

2- SLE and pneumoconiosis

**3- Rheumatoid lung nodules and pneumoconiosis**

4- Silicosis and bronchial cancer

5- Coal miners penumoconiosis

Q1803. ReviseMRCP - Respiratory Which of the following is the most useful in predicting survival in a patient with COPD?

1- FVC

**2- FEV1**

3- Echo

4- CT chest findings

5- CXR findings

Q1804. ReviseMRCP - Respiratory A patient has an abnormal CXR which is suggestive of lung cancer. What investigation should be performed next?

1- Bronchoscopy

2- Further CXR is 6 months

**3- CT chest, abdomen and pelvis**

4- Pulmonary function tests

5- Routine bloods

Q1805. ReviseMRCP - Respiratory A patient presents with a history suggestive of asthma. Which investigation would you organise next?

**1- Pulmonary function tests**

2- Chest Xray

3- Routine bloods

4- Nil required

5- Peak flow

Q1806. ReviseMRCP - Respiratory A patient is suspected of having radiation pneumonitis. Which of the following is most useful in the management?

1- Aspirin

2- Antibiotics

**3- Steroids**

4- Oxygen therapy

5- Nebulisers

Q1807. ReviseMRCP - Respiratory Systemic sclerosis is predominantly associated with which one of the following?

1- COPD

2- Cryptogenic fibrosing alveolitis

**3- Pulmonary fibrosis**

4- Pulmonary nodules

5- Aspiration pneumonia

Q1808. ReviseMRCP - Respiratory A 37 year old presents with fatigue, weight loss and nausea. He describes episodes of haemoptysis and has noticed his urine being very dark. On examination he has bibasal crepitations. His bloods reveal an iron deficiency anaemia and renal impairment and urinalysis reveals proteinuria and microscopic haematuria. Which investigation will give the definitive diagnosis?

1- Rheumatoid factor

**2- Renal biopsy**

3- Inflammatory markers

4- Sputum culture

5- Vascular biopsy

Q1809. ReviseMRCP - Respiratory A 37 year old presents with fatigue, weight loss and nausea. He describes episodes of haemoptysis and has noticed his urine being very dark. On examination he has bibasal crepitations. His bloods reveal an iron deficiency anaemia and renal impairment and urinalysis reveals proteinuria and microscopic haematuria. What is the most likely diagnosis?

1- Wegeners granulomatosis

2- SLE

3- Glomerulonephritis

**4- Goddpastures syndrome**

5- Churg Strauss syndrome

Q1810. ReviseMRCP - Respiratory Which of the following drugs does not require cautious use in asthma?

1- Paracetamol

2- Adenosine

3- NSAIDs

**4- Timolol eye drops**

5- Atenolol

Q1811. ReviseMRCP - Respiratory In systemic sclerosis which one of the following autoantibodies is atrongly associated with pulmonary fibrosis?

1- Anti RNA polymerase I

**2- Anti topoisomerase1**

3- Anti nuclear antibody

4- Anti centromere

5- Anti RNA polymerase III

Q1812. ReviseMRCP - Respiratory A 37 year old presents with fatigue, weight loss and nausea. He describes episodes of haemoptysis and has noticed his urine being very dark. On examination he has bibasal crepitations. His bloods reveal an iron deficiency anaemia and renal impairment and urinalysis reveals proteinuria and microscopic haematuria. Which autoantibody would you expect to find?

1- pANCA

2- Rheumatoid factor

3- cANCA

4- Anti dsDNA

**5- Anti GBM**

Q1813. ReviseMRCP - Respiratory A 48 year old female presents with dyspnoea and syncope on exertion. She is a non smoker and has no past medical history. On examination she has a raised JVP, right parasternal heave, loud pulmonary second heart sound and peripheral oedema. Her chest is clear. An ECG reveals right ventricular strain pattern and CXR shows prominent pulmonary arteries. She now admits to having used fenfluramine in the past. What is the most likely diagnosis?

1- Aortic stenosis

2- Asthma

**3- Primary pulmonary hypertension**

4- COPD

5- Multiple recurrent pulmonary embolus

Q1814. ReviseMRCP - Respiratory A 52 year old male presents with fatigue, shortness of breath on exertion and syncope on several occasions whilst exercising. On examination there is peripheral oedema and an elevated JVP. Chest is clear. He has a previous history of recurrent pulmonary embolus. What is the most likely diagnosis?

1- Pulmonary Embolus

2- COPD

3- Primary pulmonary hypertension

4- Congestive cardiac failure

**5- Secondary pulmonary hypertension**

Q1815. ReviseMRCP - Respiratory A 22 year old female presents with her mother to A+E with an acute exacerbation of her asthma. She is wheezy with a RR of 24 and a HR of 90 and oxygen saturations of 99%. Her PEFR is 250 (normal 300). She is commenced on a salbuatmol nebuliser and clinically improves with her wheeze sounding better and her RR 18 and sats 100%. What is the next course of action?

1- Commence Ipratropium Bromide Nebulisers

2- IV Hydrocortisone

**3- Discharge with 5 day course of prednisolone**

4- Admit for 4 hourly nebulisers and observation for 24 hours

5- Discharge with home nebuliser

Q1816. ReviseMRCP - Respiratory A 58 year old male with COPD, has been admitted several times over the last 6 months with non infective exacerbation of COPD. He is currently on seretide. Which of the following is the next appropriate stage in management?

1- Nebulised salbutamol

**2- Tiotropium**

3- Ipratropium

4- Maintenance dose oral steroids

5- Salbuatmol Prn

Q1817. ReviseMRCP - Respiratory A 65 year old male with COPD presents with an acute exacerbation. He is commenced on salbutamol and ipratropium nebulisers and given IV hydrocortisone. However blood gases reveal a pO2 of 8.0 kPa and a pCO2 of 10.0 kPa and a pH of 7.2. What is the next appropriate step in management?

1- Reduce O2 therapy

**2- BiPAP**

3- IV Doxapram

4- Intubation for ventilation

5- CPAP

Q1818. ReviseMRCP - Respiratory What would suggest metabolic alkalosis in a patient with a bicarbonate of 36 mmol/l?

1- Alkaline urine

2- Low CO2

**3- Raised CO2**

4- Raised anion gap

5- Hypokalaemia

Q1819. ReviseMRCP - Respiratory Which of the following is not useful in the diagnosis of occupational asthma in the primary care setting?

1- Transfer factor

2- FEV1/FVC ratio

3- Response to salbutamol

**4- Serial peak flow measurement at home and work**

5- Specific bronchial provocation testing

Q1820. ReviseMRCP - Respiratory A 52 year old male who keeps pigeons presents to his GP. He states for some months he has had a productive cough, shortness of breath on exertion, fatigue, anorexia and has lost 2 stones in weight. On examination there is bibasal inspiratory crackles. A CXR reveals reticulonodular shadowing. What is the most likely diagnosis?

1- Cardiac Failure

2- Cryptogenic Allergic Alveolitis

**3- Extrinsic Allergic Alveolitis**

4- ABPA

5- Sarcoidosis

Q1821. ReviseMRCP - Respiratory Which of the following is not a contraindication for surgical treatment of a bronchial carcinoma?

1- Brain Metastases

2- Widespread lymph node involvement

3- FEV1 <1.5l

**4- Paraneoplastic syndrome**

5- Malignant pleural effusion

Q1822. ReviseMRCP - Respiratory A 52 year old gentleman has just returned from a cruise. He has developed had been unwell with fever, headache, myalgia and diarrhoea and vomiting with a dry cough. His cough is now more severe, with occasional haemoptysis and dyspnoea. Bloods reveal elevated WCC and CRP, hyponatraemia and deranged LFTs. What is the most likely causative agent?

**1- Legionella pneumophila**

2- Streptococcus Pneumoniae

3- Staphylcoccus Aureus

4- Mycoplasma pneumoniae

5- Klebsiella

Q1823. psin deficiency?

1- Alpha 1 antitrypsin is a glycoprotein

2- Liver is commonly involved

3- PiZZ genotype produces severe disease

**4- Most commonly recessively inherited**

5- Protects from neutrophil elastase

Q1824. ReviseMRCP - Respiratory Which of the following leads to low pleural effusion glucose levels?

1- Hypothyroidism

2- Cirrhosis

3- Congestive cardiac failure

**4- Rheumatoid disease**

5- Parapneumonic

Q1825. ReviseMRCP - Respiratory A patient with Goodpastures syndrome is found to have an elevated diffusion capacity. What is the likely cause of this elevation?

1- Smoking

**2- Pulmonary Haemorrhage**

3- Pulmonary embolus

4- Asthma

5- COPD

Q1826. ReviseMRCP - Respiratory A patient presents with a life threatening asthma attack. Which of the following is the most worrying feature?

1- Previous ITU admission

2- PO2 of 9.8

**3- PCO2 of 5.6 kPa**

4- Consolidation on CXR

5- Previously required oral steroids

Q1827. ReviseMRCP - Respiratory Which of the following organisms is one of the most common colonising agents in cystic fibrosis?

1- Mycobacteria species

**2- Pseudomonas aeruginosa**

3- Streptococcus pneumoniae

4- Moraxella catarrhalis

5- Burkholderia cepacia

Q1828. ReviseMRCP - Respiratory A 32 year old presents with a one week history of malaise, fever, headache, myalgia with a sore throat, dry cough and pleuritic chest pain. On examination there is bibasal crepitations. There is evidence of erythema nodosum and bloods reveal a haemolytic anaemia and cold agglutinins. Given the most likely diagnosis, what treatment should be commenced?

1- Co amoxiclav

2- Doxycycline

**3- Erythromycin**

4- Amoxicillin

5- Ciprofloxacin

Q1829. ReviseMRCP - Respiratory A 42 year old male is admitted for treatment of a community acquired pneumonia. He had been making a good recovery when 3 days into admission he spikes a temperature and is complaining of pleuritic chest pain. A CXR reveals a right sided pleural effusion. A pleural tap is performed and is purulent with the fluid having a pH of less than 7.2, low glucose and elevated LDH. What is the most likely diagnosis?

1- Pneumonia Recurrence

2- Pneumothorax

3- Parapneumonic Effusion

4- Haemothorax

**5- Empyema**

Q1830. ReviseMRCP - Respiratory Which of the following is not a feature of pulmonary embolism?

1- Pyrexia

**2- Bradycardia**

3- Pleural Rub

4- Atrial Fibrillation

5- Tachypnoea

Q1831. ReviseMRCP - Respiratory A patient who has been in contact with a patient with pulmonary tuberculosis and has a positive tuberculin skin test however they are asymptomatic and there CXR is clear. How should they be managed?

1- Quadruple therapy for 3 months

2- Isoniazid and rifampicin for 6 months

3- No treatment required

**4- Isoniazid and rifampicin for 3 months**

5- Close monitoring

Q1832. ReviseMRCP - Respiratory Which of the following drugs utilised for the management of Tuberculosis, can lead to dizziness and balance disturbance?

1- Pyrazinamide

2- Rifampicin

3- Isoniazid

4- Ethambutol

**5- Streptomycin**

Q1833. ReviseMRCP - Respiratory Which of the following is not a side effect of rifampicin?

1- Staining of bodily secretions pink

2- Thrombocytopenia

3- Hepatitis

**4- Visual disturbance**

5- Diarrhoea

Q1834. ReviseMRCP - Respiratory The sniff test is utilised in what imaging technique?

**1- Fluoroscopy**

2- CT chest

3- Echocardiography

4- Xray

5- Spirometry

Q1835. ReviseMRCP - Respiratory Which of the following is not a contraindication for surgical treatment of a bronchial carcinoma?

**1- Paraneoplastic syndrome**

2- FEV1 less than 1.5l

3- Brain metastases

4- Malignant pleural effusion

5- Widespread lymph node involvement

Q1836. ReviseMRCP - Respiratory A 25 year old female has an acute asthma attack. She is tachycardic and is tachypnoeic with a respiratory rate of 35. On auscultation she is very wheezy but is beginning to tire. Her peak flow is bout one third of her normal. She is commenced on both salbutamol and ipratropium nebulisers and IV hydrocortisone however has not greatly improved. Her gases reveal a high normal CO2 level and low normal O2 level on a trauma mask. Which other treatment option is the most appropriate to be be tried whilst waiting for ITU to assess the patient?

1- CPAP

2- IV Salbutamol

3- BiPAP

**4- IV Magnesium sulphate**

5- IV aminophylline

Q1837. ReviseMRCP - Respiratory A 22 year old presents with sudden onset of pleuritic chest pain. He is not breathless and his saturations are 100%. A Chest Xray reveals a small pneumothorax which is less than 2cm rim. How should this patient be managed?

1- Chest drain

2- Aspiration

3- High flow oxygen

4- Admit for observation

**5- Outpatient follow up**

Q1838. ReviseMRCP - Respiratory A 37 year old presents with fatigue, weight loss and nausea. He describes episodes of haemoptysis and has noticed his urine being very dark. On examination he has bibasal crepitations. His bloods reveal an iron deficiency anaemia and renal impairment and urinalysis reveals proteinuria and microscopic haematuria. What is the most likely diagnosis?

1- Glomerulonephritis

2- Wegeners Granulomatosis

3- SLE

4- Churg Strauss syndrome

**5- Goodpastures syndrome**

Q1839. ReviseMRCP - Respiratory A 48 year old gentleman presents with extreme tiredness and difficulty concentrating. His wifes states he is irritable and he is a very loud snorer and occasionally chokes during the night. His libido is low, he is suffering from headaches and he has been falling asleep during the day as he feels very unrefreshed after his sleep. His BMI is 35. Polysomnography reveals a apnoea/hyponoea index of 10. His ABGs do not reveal significant hypoxia. Which of the following is useful initially in the management?

1- LTOT

2- CPAP

3- BiPAP

4- ABGs

**5- Weight loss and lifestyle advice**

Q1840. ReviseMRCP - Respiratory A 44 year old smoker presents with increasing shortness of breath. She states she has fainted a couple of times on exertion. On examination there is a right ventricular heave and loud pulmonary second heart sound and an ECG shows right ventricular hypertrophy. Her chest is clear. A CXR is performed and is normal. What investigation should be performed for the definitive diagnosis?

1- D dimers

2- Coagulation screen

**3- CTPA**

4- Exercise tolerance test

5- Pulmonary function tests

Q1841. ReviseMRCP - Respiratory A 52 year old gentleman has been unwell for the last couple of weeks with a viral illness. He is now very unwell with a high grade fever, productive cough and type 1 respiratory failure. A chest Xray reveals multilobular patchy consolidation. There is also evidence of a pleural effusion. Given the most likely causative agent, which antibiotic is a useful addition?

**1- Flucloxacillin**

2- Metronidazole

3- Ceftriaxone

4- Erythromycin

5- Doxycycline

Q1842. ReviseMRCP - Respiratory A 22 year old presents with sudden onset of pleuritic chest pain. He is not breathless and his saturations are 100%. A Chest Xray reveals a small pneumothorax which is less than 2cm rim. How should this patient be managed?

1- Chest drain

**2- Outpatient follow up**

3- High flow oxygen

4- Aspiration

5- Admit for observation

Q1843. ReviseMRCP - Respiratory In some cases of familial primary pulmonary hypertension, mutation of bone morphogenic protein receptor 2 on chromosome 2q33 is thought to be responsible. What does this gene encode?

1- TNF alpha

2- Interleukin 6

3- Interleukin 10

4- Fibrillin

**5- TGF beta**

Q1844. ReviseMRCP - Respiratory Pulmonary function tests reveal a reduced FEV1/FVC ratio, reduced gas transfer and increased total lung capacity. There is little improvement after salbutamol. What is the most likely diagnosis?

1- Pulmonary embolism

2- Asthma

3- Pneumonia

4- Interstitial lung disease

**5- COPD**

Q1845. ReviseMRCP - Respiratory How are the majority of cases of familial primary pulmonary hypertension inherited?

1- Mitochondrial

**2- Autosomal dominant**

3- Autosomal recessive

4- X linked dominant

5- X linked recessive

Q1846. ReviseMRCP - Respiratory A 24 year old presents with pleuritic chest pain and shortness of breath. A CXR reveals an air rim of greater than 2cm and sats are 99%. How should this patient me managed initially?

1- High flow oxygen

2- Discharge with outpatient follow up

3- Chest drain

4- Admit for observation

**5- Aspiration**

Q1847. ReviseMRCP - Respiratory A 54 year old male with a history of COPD presents with pleuritic chest pain and shortness of breath. A CXR reveals an air rim of greater than 2cm and sats are 90%. How should this patient me managed initially?

1- Aspiration

2- Admit for observation

3- Discharge with outpatient follow up

4- High flow oxygen

**5- Chest drain**

Q1848. ReviseMRCP - Respiratory A 44 year old male with a history of COPD presents with pleuritic chest pain. A CXR reveals an air rim of less than 2cm and sats are 94%. How should this patient me managed initially?

1- Chest drain

2- Discharge with outpatient follow up

**3- Aspiration**

4- High flow oxygen

5- Admit for observation

Q1849. ReviseMRCP - Respiratory Which of the following is associated with a poor prognosis in a patient with pneumonia?

1- Respiratory rate of 28

**2- Confusion**

3- Pyrexia

4- Urea of 6.5 mmol/L

5- Age 62

Q1850. on the right side with dullness to percussion and reduced vocal resonance. What is the most likely diagnosis?

1- Bronchiectasis

**2- Yellow nail syndrome**

3- COPD

4- Congestive cardiac failure

5- Lymphoedema

Q1851. on the right side with dullness to percussion and reduced vocal resonance. Given the most likely diagnosis, what supplementation might be useful?

1- Vitamin A

2- Selenium

**3- Zinc**

4- Potassium

5- Magnesium

Q1852. ReviseMRCP - Respiratory A 35 year old female who works in a cotton mill in China has recently immigrated. She states while working in the cotton mill she would suffer from cough, shortness of breath and chest tightness on the first day of work as this gradually improved as the week progressed. There is nil of note on examination. Chest xray and pulmonary function tests are normal. What is the most likely diagnosis?

1- Anxiety

**2- Byssinosis**

3- Occupational asthma

4- Silicosis

5- Berylliosis

Q1853. ReviseMRCP - Respiratory A 45 year old gentleman who has COPD presents with shortness of breath and pleuritic chest pain. He has a cough and has had several episodes of haemoptysis. He has recently returned from visiting his family in Australia. On examination he is pyrexial, tachypnoeic with saturations of 90% and there is widespread wheeze throughout his chest. Bloods reveal an elevated CRP and WCC. A CXR reveals hyperinflation of the lungs and an ECG sinus tachycardia. Which investigation should be organised to confirm the diagnosis?

1- D-dimers

2- ABGs

**3- CT Pulmonary Angiogram**

4- CT Chest

5- Ventilation perfusion scan

Q1854. ReviseMRCP - Respiratory A 58 year old male with Churg Strauss Syndrome presents with a cough productive of green sputum with occasional haemoptysis. He has chronic kidney disease stage 3. He is currently on long term steroids. On examination he appears relatively well. There is evidence of left basal crepitations and bronchial breathing and he has a respiratory rate of 20. His temperature is 37.8. Oxygen saturations are 97%. His heart rate was 90 and Blood pressure 120/70 mmHg. A Chest Xray reveals left basal consolidation.

**1- Oral Amoxicillin and Increase steroid dose**

2- IV amoxicillin and Increase steroid dose

3- Oral Co-amoxiclav and Clarithromycin

4- IV steroids

5- Oral Co-amoxiclav and Increase steroid dose

Q1855. ReviseMRCP - Respiratory A 45 year old female with SLE presents with recurrent episodes of malaise with cough, shortness of breath and fever. She does not respond to IV antibiotics. On examination there is bilateral inspiratory crackles. A Chest Xray shows bilateral parenchymal shadowing. Bloods reveal an elevated ESR and normal WCC. What is the most likely diagnosis?

1- Tuberculosis

**2- Bronchiolitis Obliterans Organizing Pneumonia**

3- Extrinsic Allergic Alveolitis

4- Multiple recurrent pulmonary emboli

5- Viral pneumonia

Q1856. ReviseMRCP - Respiratory A 52 year old female has been diagnosed with a non small bronchial carcinoma in the left upper lobe. Following further investigation it is staged as T1, N1, M0. Her FEV1 is 65% of her predicted. Which of the following is the most appropriate treatment?

1- Corticosteroids

2- Radiotherapy

**3- Pneumonectomy**

4- Palliative care

5- Chemotherapy

Q1857. ReviseMRCP - Respiratory A patient with asthma presents with a productive cough and breathlessness. A Chest X-ray reveals loss of volume in the left hemithorax and there appears to be an opacity behind the heart shadow and the left hemidiaphragm is obscured. Which of the following is the most likely cause?

1- Normal variant

**2- Mucous plugging**

3- Pneumonia

4- Pleural effusion

5- Pulmonary Embolus

Q1858. ReviseMRCP - Respiratory A 56 year old gentleman has just been diagnosed with a Pancoast's tumour. He is complaining of weakness and numbness in his right arm. His shoulder is painful and this is radiating down his arm and on examination there is muscle wasting in his hand and loss of sensation in an ulnar distribution. A recent CT had showed evidence of lymphadenopathy near to the location of the tumour but no mediastinal lymphadenopathy and there was no evidence of peripheral metastases. His bloods revealed hypercalcaemia. There was no evidence of any bony lytic lesions. His FEV1 was 65% of his predicted.

1- FEV1

2- Metastases

**3- Signs and symptoms in the arm**

4- Lymph node involvement

5- Hypercalcaemia

Q1859. ReviseMRCP - Respiratory A 28 year old man and his partner present as they are having trouble conceiving. Further investigations reveal immobile sperm. The gentleman also gives a history of having chronic rhinorrhoea. He has also has a chronic cough and has had several episodes of sinusitis and pneumonia. A Chest X-ray reveals dextrocardia. A sweat test is normal. Which of the following is the most likely diagnosis?

1- Cystic Fibrosis

2- Primary Ciliary Dykinesia

**3- Kartagener's Syndrome**

4- Allergic Rhinitis

5- Yellow nail syndrome

Q1860. ReviseMRCP - Respiratory A 67 year old male presents with a cough productive of green sputum. He is generally unwell and feverish. On examination his RR is 22 and there is crackles at the left lower base and dullness to percussion. He has a temperature of 39.2. His heart rate is 100 and his blood pressure is 105/75. Bloods reveal a CRP of 250 and a urea of 9.2 mmol/l and creatinine of 110 mmol/l. A CXR reveals left lower lobe consolidation. Which of the following in this case is a poor prognostic feature?

1- CRP 250

2- Systolic BP 105

3- Consolidation on CXR

4- RR 22

**5- Urea of 9.2 mmol/L**

Q1861. ReviseMRCP - Respiratory A 34 year old female who works in a pet shop presents with a few days history of fever, chills, unproductive cough and shortness of breath. She is also complaining of a sore throat, nose bleeds and severe headache. She is also photophobic. On examination there is a few bibasal crackles. There is evidence of splenomegaly. You notice a few salmon coloured, blanching, papules on her cheeks. Which of the following is the most likely diagnosis?

1- Chronic form of Extrinsic Allergic Alveolitis

2- Legionella

3- Q Fever

4- Acute form of Extrinsic Allergic Alveolitis

**5- Psittacosis**

Q1862. ReviseMRCP - Respiratory A 48 year old farmer presents to his GP. He states that often in the evening following his morning duties of milking the cows and forking hay he feels unwell with a fever, cough, chest tightness and shortness of breath. This then resolves and he feels well again by the morning. On examination he has bibasal inspiratory crackles. A CXR shows diffuse micronodular interstitial shadowing. Which of the following is the most likely diagnosis?

1- Occupational Asthma

2- Viral Pneumonia

**3- Acute form of Extrinsic Allergic Alveolitis**

4- Tuberculosis

5- Chronic form of Extrinsic Allergic Alveolitis

Q1863. ReviseMRCP - Respiratory A 28 year old female with asthma which is normally well controlled presents with worsening wheeze. She states this is associated with a productive cough and on occasion the sputum has been blood stained. This is also associated with malaise and severe headache. This has occurred on several occasions over the last few months. Her family owns a farm. As her father died recently she has been helping out on the farm. Bloods reveal an eosinophilia and raised IgE. A CXR shows evidence of pulmonary infiltrates. Which of the following is the most likely diagnosis?

1- Aspergilloma

**2- Allergic Bronchopulmonary Aspergillosis**

3- Wegener's Granulomatosis

4- Tropical pulmonary eosinophilia

5- Invasive aspergillosis

Q1864. ReviseMRCP - Respiratory A 28 year old female with asthma which is normally well controlled presents with worsening wheeze. She states this is associated with a productive cough and on occasion the sputum has been blood stained. This is also associated with malaise and severe headache. This has occurred on several occasions over the last few months. Her family owns a farm. As her father died recently she has been helping out on the farm. Bloods reveal an eosinophilia and raised IgE. A CXR shows evidence of pulmonary infiltrates. Given the most likely diagnosis, what treatment should be commenced?

1- Salbutamol inhaler

2- Azathioprine

3- Nil specific

**4- Prednisolone**

5- Amoxicillin

Q1865. ReviseMRCP - Respiratory A 38 year old male returned from travelling around Asia 6 months ago. He presents with a nocturnal dry cough, shortness of breath and wheeze. He is commenced on a salbutamol inhaler. However he returns with fever, weight loss and listlessness. Bloods reveal an eosinophilia and elevated IgE. A CXR reveals bilateral hazy mottling. Which of the following is the most likely diagnosis?

1- Allergic Bronchopulmonary Aspergillosis

2- Churg-Strauss Syndrome

**3- Tropical Pulmonary Eosinophilia**

4- Aspergilloma

5- Asthma

Q1866. ReviseMRCP - Respiratory A 38 year old male returned from travelling around Asia 6 months ago. He presents with a nocturnal dry cough, shortness of breath and wheeze. He is commenced on a salbutamol inhaler. However he returns with fever, weight loss and listlessness. Bloods reveal an eosinophilia and elevated IgE. A CXR reveals bilateral hazy mottling. Given the most likely diagnosis, which of the following is the treatment of choice?

1- Fluconazole

2- Steroid inhaler

3- Doxycycline

4- Prednisolone

**5- Diethylcarbamazine**

Q1867. ReviseMRCP - Respiratory All of these are features of pulmonary embolism except bradycardia. In PE there is normally a tachycardia although this may be masked if a patient is on beta blockers.

1- Tachycardia

2- Right bundle branch block

3- Atrial Fibrillation

4- Right axis deviation

**5- Left axis deviation**

Q1868. ReviseMRCP - Respiratory A 52 year old gentleman presents with unwell with a cough productive of green sputum with occasional blood flecks. He is also complaining of shortness of breath and has a cold sore. On examination he is pyrexial, tachypneoic, tachycardic and there is left basal coarse crackles. What is the most diagnosis?

1- Pneumonia secondary to H. Influenzae Klebsiella pneumoniae

**2- Pneumonia due to streptococcus pneumoniae**

3- Viral Pneumonia

4- Pneumonia secondary to coxiella burnetii Mycoplasma pneumoniae

5- Pneumonia due to staphylococcus aureus

Q1869. ReviseMRCP - Respiratory Which of the following leads to increased pulmonary compliance in COPD?

1- Excessive mucous

2- Hyperreactive smooth muscle

3- Dilatation of bronchioles

**4- Elastic tissue loss**

5- Cilia dysfunction

Q1870. ReviseMRCP - Respiratory A 25 year old female has an acute asthma attack. She is tachycardic and is tachypnoeic with a respiratory rate of 35. On auscultation she is very wheezy but is beginning to tire. Her peak flow is bout one third of her normal. She is commenced on both salbutamol and ipratropium nebulisers and IV hydrocortisone however has not greatly improved. Her gases reveal a high normal CO2 level and low normal O2 level on a trauma mask. Which other treatment option is the most appropriate to be be tried whilst waiting for ITU to assess the patient?

1- IV aminophylline

**2- IV magnesium sulphate**

3- CPAP

4- IV salbutamol

5- BiPAP

Q1871. ReviseMRCP - Respiratory A 30 year old male with asthma who has a regular steroid inhaler and uses salbutamol PRN, presents with worsening asthma. Despite his current management and good inhaler technique, he is having to use his salbutamol inhaler approximately four times a day. What is the next appropriate addition to his current medication?

1- Theophylline

2- Increased steroid dose

**3- Trial of addition of long acting beta agonist**

4- Sodium cromoglycate

5- Montelukast

Q1872. ReviseMRCP - Respiratory Which of the following would lead to whispering pectoriloquy on auscultation?

**1- Consolidation**

2- Pulmonary Embolus

3- Pleural Effusion

4- Pneumothorax

5- Asthma

Q1873. ReviseMRCP - Respiratory A 56 year old with recently diagnoses COPD presents with shortness of breath and wheeze. Blood gases reveal a PO2 of 8.6 kPa, PCO2 of 6.8 kPa, Ph of 7.25 and a bicarbonate of 24. What do these gases indicate?

1- Acute on chronic respiratory acidosis

2- Respiratory alkalosis

3- Metabolic acidosis

**4- Acute respiratory acidosis**

5- Respiratory acidosis with metabolic compensation

Q1874. ReviseMRCP - Respiratory Which of the following is a contraindication to radiotherapy in lung cancer?

1- Reduced FEV1/FVC ratio

2- Ischaemic heart disease

3- Spinal cord compression

**4- Malignant pleural effusion**

5- Liver Metastases

Q1875. ReviseMRCP - Respiratory In corpulmonale, which of the following improves survival as well as provides symptomatic relief?

**1- Long term oxygen therapy for at least 15 hours per day**

2- Theophylline

3- Warfarin

4- Furosemide

5- Digoxin

Q1876. ReviseMRCP - Respiratory What would you expect to find on pulmonary function test in a patient with morbid obesity?

1- Increased total lung capacity

**2- Reduced FVC when lying flat**

3- Reduced FEV1/FVC ratio

4- Reduced gas transfer

5- Reduced total lung capacity

Q1877. are positive for aspergillus. A CXR is awaited. What is the most likely diagnosis?

**1- Allergic Bronchopulmonary Aspergillosis**

2- Churg Strauss syndrome

3- Invasive pulmonary aspergillosis

4- Aspergilloma

5- Wegeners granulomatosis

Q1878. ReviseMRCP - Respiratory A 60 year old male who is a 40 per day smoker presents with shortness of breath to his GP. He had a cough productive of green sputum over winter. On examination there is wheeze throughout his chest. Pulmonary functions test reveal a reduced FEV1/FVC ratio. There is little response to salbutamol. A chest Xray reveals increased pulmonary vasculature and hyperinflation. What is the most likely diagnosis?

**1- COPD**

2- Interstitial lung disease

3- Asthma

4- Pulmonary Embolism

5- Bronchial Carcinoma

Q1879. ReviseMRCP - Respiratory A 72 year old male who was previously a ship builder presents with increasing shortness of breath and reduced exercise tolerance. He smokes 40 per day. On examination there is evidence of finger clubbing and fine bibasal inspiratory crackles. A Chest Xray reveals pleural plaques and interstitial changes in both lower zones. What is the most likely diagnosis?

1- Bronchial Carcinoma

**2- Asbestosis**

3- COPD

4- Pleural plaques

5- Mesothelioma

Q1880. ReviseMRCP - Respiratory Which of the following is not a risk factor for developing lung cancer?

1- Passive smoking

2- Arsenic

3- Asbestos

**4- Aromatic amines**

5- Smoking

Q1881. ReviseMRCP - Respiratory Which of the following does not interact with theophylline levels?

1- Alcohol

**2- Amoxicillin**

3- Smoking

4- Carbamazepine

5- Clarithromycin

Q1882. ReviseMRCP - Respiratory What is the mechanism of action of salbutamol?

1- Beta2 receptor antagonist which increases cAMP levels and leads to muscle relaxation and bronchodilation

**2- Beta2 receptor agonist which increases cAMP levels and leads to muscle relaxation and bronchodilation**

3- Beta2 receptor agonist which increases cGMP levels and leads to muscle relaxation and bronchodilation

4- Beta2 receptor agonist which increases cAMP levels and leads to muscle contraction and bronchoconstriction

5- Beta2 receptor agonist which decreases cAMP levels and leads to muscle relaxation and bronchodilation

Q1883. ReviseMRCP - Respiratory A 60 year old male presents with shortness of breath on exertion and a productive cough. He has worked with granite and slate for many years. A CXR reveals multiple small nodules throughout the lungs and are predominant in the upper lobes. Given the most likely diagnosis, what is this patient at risk of developing?

1- Mesothelioma

2- Cor pulmonale

3- Glomerulonephritis

**4- Progressive massive fibrosis**

5- Bronchial cancer

Q1884. ReviseMRCP - Respiratory A 52 year old male who keeps pigeons presents to his GP. He states for some months he has had a productive cough, shortness of breath on exertion, fatigue, anorexia and has lost 2 stones in weight. On examination there is bibasal inspiratory crackles. A CXR reveals reticulonodular shadowing. What is the most likely diagnosis?

1- Congestive Cardiac Failure

2- Sarcoidosis

3- Cryptogenic Allergic Alveolitis

**4- Extrinsic Allergic Alveolitis**

5- Mesothelioma

Q1885. ReviseMRCP - Respiratory A 28 year old farm worker presents with a dry cough and fever. For the last 2 weeks he has been suffering from a flu like illness with headache, myalgia and fatigue. Bloods reveal deranged LFTs and hyponatraemia. Which of the following is the most likely diagnosis?

1- Chlamydia psittaci pneumonia

**2- Q fever**

3- Viral pneumonia

4- Influenza

5- Streptococcus pneumonia

Q1886. on the left to the mid zone and dullness to percussion. A Chest Xray reveals a left side pleural effusion. There is history of previous asbestos exposure. Which investigation will be most useful in providing the definitive diagnosis?

1- CT Chest

2- Pleural Ultrasound

3- Chest drain

**4- Pleural Biopsy**

5- Pleural Tap and cytological analysis

Q1887. ReviseMRCP - Respiratory Which of the following advice would you give to a young patient who had suffered a spontaneous pneumothorax?

1- Not to fly for one year

**2- Avoid scuba diving for life**

3- Avoid sky diving for one year

4- Not to play sports

5- Not allowed to scuba dive for 2 years

Q1888. ReviseMRCP - Respiratory A 65 year old male with COPD presents with an acute exacerbation. He is commenced on salbutamol and ipratropium nebulisers and given IV hydrocortisone. However blood gases reveal a pO2 of 8.0 kPa and a pCO2 of 10.0 kPa and a pH of 7.2. What is the next appropriate step in management?

1- IV doxapram

2- CPAP

3- Reduce oxygen therapy

4- Intubation for ventilation

**5- BiPAP**

Q1889. ReviseMRCP - Respiratory What advice should be given to patients specifically after using a steroid inhaler?

**1- Rinse out mouth after use**

2- Shake inhaler before use

3- Hold breath for 10 seconds after inhaling

4- Sit or stand up when using

5- Simultaneously press inhaler as breath is taken in

Q1890. ReviseMRCP - Respiratory Which of the following drugs utilised for the management of Tuberculosis, can lead to a visual disturbance?

**1- Ethambutol**

2- Isoniazid

3- Pyrazinamide

4- Rifampicin

5- Streptomycin

Q1891. ReviseMRCP - Respiratory Which of the following drugs if utilised at high doses for the management of Tuberculosis, leads to a peripheral neuropathy?

1- Rifampicin

2- Streptomycin

**3- Isoniazid**

4- Ethambutol

5- Pyrazinamide

Q1892. ReviseMRCP - Respiratory A 72 year old female who is a nursing home resident, with a previous history of a stroke, is brought to A and E very unwell. She is tachypneoic, pyrexial and there is coarse crepitations in her right base. What is the most likely diagnosis?

1- Tuberculosis

2- Pulmonary embolus

3- Staphylococcal aureus pneumonia

**4- Aspiration pneumonia**

5- Pneumococcal pneumonia

Q1893. ReviseMRCP - Respiratory In progressive massive fibrosis, what would you expect to see on pulmonary function tests?

1- Nil

2- Obstructive pattern

**3- Mixed restrictive and obstructive pattern**

4- Reduced total lung capacity

5- Restrictive pattern

# Chapter 13 Rheumatology

Q1894. A 40 year old male presents with painful fingers. On examination there is evidence of dactylitis and he is tender over his DIPs and there is pitting of his nails. His rheumatoid factor is negative. What is the most likely diagnosis?

1- Pseudogout

2- Osteoarthritis

3- SLE

**4- Psoriatic arthritis**

5- Rheumatoid arthritis

Q1895. A 40 year old man present with acute pain, erythema and swelling over the 1st MTP joint and is diagnosed with gout. He is commenced on allopurinol and represents in a few days with the same presentation. What caused the representation?

1- Inadequately treated gout

2- Reactive Arthritis

**3- Allopurinol**

4- Septic arthritis

5- Pseudogout

Q1896. A 40 year old with brittle asthma presents with left hip and groin pain. It is very painful to weight bear. An x-ray reveals no evidence of a fracture. What investigation will give the definitive diagnosis?

1- X-ray of left knee

2- Arthroscope of left knee

**3- MRI of the left hip**

4- Autoantibodies

5- Inflammatory markers

Q1897. A 60 year old farmer presents with left hip pain. He first noticed 6 months previously however it has gradually worsened since then. It worsens over the day and is worst at the end of the day or after movement. He does notice some stiffness in the morning. What is the most likely diagnosis?

**1- Osteoarthritis**

2- Gout

3- Lyme disease

4- Pseudogout

5- Rheumatoid arthritis

Q1898. What is the most common finding in blood testing for those with SLE?

**1- Low complement levels**

2- Anti double-stranded DNA

3- Rheumatoid factor

4- ANA

5- Anticardiolipin antibody

Q1899. Which of the following is a feature on Xray of Rheumatoid Arthritis?

1- Lytic lesions

2- Loosers Zones

3- Osteophytes

4- Widened joint space

**5- Periarticular osteopenia**

Q1900. A patient with polymyalgia rheumatica is on a reducing dose of steroids. She is has just dropped from 10mg to 9mg however has had a flare of her symptoms. What is the next course of action?

1- No change

2- Increase prednisolone to 15 mg and slow rate of reduction

3- Increase prednisolone to 40mg

4- Increase prednisolone to 15mg

**5- Increase prednisolone to 10 mg and slow rate of reduction**

Q1901. What disorder is most commonly associated with Raynauds Phenomenon?

**1- Systemic sclerosis**

2- SLE

3- Polymyositis

4- Ankylosing Spondylitis

5- Rheumatoid Arthritis

Q1902. A patient has developed nephrotic syndrome and a renal biopsy is performed. This reveals deposits in the mesangium and capillaries which stain pink with congo red and appear as green birefringence when under polarised light. What is the likely underlying diagnosis?

**1- Rheumatoid arthritis**

2- IgA nephropathy

3- Membranoproliferative Glomerulonephritis

4- Wegeners Granulomatosis

5- Goodpastures Syndrome

Q1903. Rheumatoid factor is most commonly which immunoglobulin class?

1- IgD

2- IgE

3- IgG

4- IgA

**5- IgM**

Q1904. Which of the following carries the highest risk of developing SLE?

1- Blood group A

2- Dizygotic twin

3- HLA

4- 2 times first degree relative

**5- Monozygotic twin**

Q1905. A 14 year old runner presents with knee pain. There is no history of trauma. There is nil of note on examination and an x-ray is normal. What is the most likely diagnosis?

1- ACL rupture

2- Suprapatellar bursitis

3- Osteochondritis dissecans

**4- Osgood**

5- Malingering

Q1906. A 25 year old female complains of chest pain. She is known to have a history of SLE. Examination reveals no abnormality. There is evidence of diffuse ST elevation on an ECG. What due to you think is the likely cause of her chest pain?

1- Libman

2- STEMI

3- Cardiac Tamponade

**4- Pericarditis**

5- Myocarditis

Q1907. A 39 year old presents with malaise, myalgia and weight loss. She has had a cough and recurrent haemoptysis. She has also noticed a rash. On examination there is evidence of palpable purpura. ANCA PR3 and ANCA MPO are positive and an eosinophil count is normal. What is the most likely diagnosis?

1- Goodpastures syndrome

2- Polyarteritis Nodosa

3- Wegeners granulomatosis

**4- Microscopic polyangiitis**

5- Churg Strauss syndrome

Q1908. What tissue is the most commonly involved in Wegeners Granulomatosis?

1- GI Tract

**2- Lungs**

3- Renal

4- Nervous

5- Skin

Q1909. A 35 year old presents with pain in both his femurs. He has a history of coeliac disease. An X-ray is performed and shows Loozers zones. Which test would be most useful in confirming the diagnosis?

1- PTH level

2- Phosphate

3- Calcium

4- Bone Scan

**5- ALP**

Q1910. In a patient with rheumatoid arthritis, what is the most likely cause of a low haemoglobin with a normal MCV, normal WCC and platelet count?

1- Iron deficiency anaemia secondary to NSAIDs

2- Feltys syndrome

3- Methotrexate

**4- Anaemia of chronic disease**

5- Hypothyroidism

Q1911. A 50 year old female presents with weight gain. On further questioning she complains of cold intolerance, tiredness, arthralgia and she has noticed her hair and nails becoming more brittle and her mood has been low. On examination she is bradycardic and mildly oedematous. Bloods reveal a normochromic normocytic anaemia. What test should be performed to confirm the diagnosis?

1- LFTs

2- Calcium and Vitamin D Levels

3- ESR

4- Cortisol

**5- TSH**

Q1912. What is the most common respiratory complication in SLE?

1- Pneumonitis

2- Obstructive Lung Disease

3- LRTI

**4- Pleural effusion**

5- Restrictive Lung Disease

Q1913. A 9 year old presents with pain and swelling of her fingers and wrists. On examination there is evidence of active synovitis at the MCPs and wrists bilaterally. Rheumatoid Factor is positive but X-rays are normal. What is the most likely diagnosis?

1- Psoriatic arthritis

**2- Juvenile Idiopathic Arthritis**

3- Rheumatoid Arthritis

4- Stills disease

5- Familial Mediterranean fever

Q1914. A 10 year old girl presents with a one week history of malaise, joint pains and pyrexia. On examination there was evidence of a swollen erythematous knee. Her ankle had been similar a few days previously but this had now settled. What is the most likely diagnosis?

1- Stills disease

2- Rheumatoid Arthritis

3- Septic Arthritis

4- Juvenile Idiopathic Arthritis

**5- Rheumatic fever**

Q1915. What antibody in SLE suggests severe systemic involvement?

1- ANA

2- Anticardiolipin antibodies

**3- Anti dsDNA antibodies**

4- ANCA

5- Antismooth muscle antibodies

Q1916. What tissue is most commonly affected in SLE?

1- Kidneys

2- Lungs

**3- Joints**

4- Liver

5- Skin

Q1917. What is the earliest clinical finding in Ankylosing Spondylitis?

1- Reduction in chest expansion

2- Paraspinal muscle wasting

3- Lumbar tenderness

**4- Lumbar lordosis retention during flexion**

5- Hip deformity

Q1918. What clinical finding is most commonly found in the hands of a patient with rheumatoid arthritis?

**1- Ulnar deviation of the MCPs**

2- Bouchards Nodes

3- Herberdens Nodes

4- Swan-neck deformity

5- Boutonni

Q1919. A 19 year old male is complaining of back pain. It is stiff in the morning and the pain and stiffness eases with exercise. What are you likely to find on clinical examination?

1- Focal neurology

2- Nil specific

3- Tenderness over the thoracic spine

4- Positive straight leg raising

**5- Tenderness over the sacroiliac joint**

Q1920. What organism most commonly leads to septic arthritis?

**1- Staph. Aureus**

2- Strep. Epidermidis 3- H. Influenzae 4- N. Gonorrhoea

5- MRSA

Q1921. A 42 year old gentleman has had chronic problems with rhinitis. He has just been recently diagnosed with asthma. He has had a few episodes of haemoptysis. He also has a purpuric rash. Bloods revealed an eosinophilia and autoantibodies revealed a positive pANCA and cANCA. CXR shows interstitial shadowing reported as pneumonitis. What is the most likely diagnosis?

1- SLE

2- Wegeners granulomatosis

3- Tuberculosis

4- Polyarteritis nodosa

**5- Churg-Strauss syndrome**

Q1922. What is the most common aetiological factor in Carpal Tunnel Syndrome?

1- Hypothyroidism

2- Trauma

3- Pregnancy

4- Rheumatoid arthritis

**5- Idiopathic**

Q1923. A 25 year old presents with an erythematous rash in a butterfly distribution over the nose and cheeks. She is complaining of joint pain the small joints of the hands. You examine her joints, what are you likely to find?

1- Deformity

**2- Nil**

3- Gottrons Papules

4- Swollen, erythematous joint

5- Soft tissue swelling

Q1924. What is the most common gastrointestinal complication seen in SLE?

**1- Mouth ulcers**

2- Primary Sclerosing Cholangitis

3- Colorectal Cancer

4- Pancreatitis

5- Hepatitis

Q1925. A 20 year old presents with lower back pain which is worse in the morning and is associated with stiffness. It is relieved with exercise. What would most likely be seen on Lumbar spine X-ray?

1- Sacroiliac joint sclerosis

2- Intervertebral ligament calcification

**3- Blurred upper and/or lower vertebral rims at the thoracolumbar junction**

4- Osteophytes

5- Syndesmophytes

Q1926. What is the best therapy for a man with severe psoriasis and psoriatic arthritis with significant deformity?

1- Prednisolone

2- Sulfasalazine

3- Methotrexate

4- Hydroxychloroquine

**5- Etanercept**

Q1927. What is the most common finding on the hands of a patient with psoriasis other than the skin findings?

1- Ulnar deviation

2- Arthritis mutilans

3- Arthritis of MCPs

**4- Nail dystrophy**

5- Arthritis of DIPs

Q1928. What drug therapy should be utilised in an acute attack of gout?

1- Allopurinol

**2- Diclofenac**

3- Prednisolone

4- Sulfinpyrazone

5- Colchicine

Q1929. A 60 year old woman presents nonspecifically unwell with fever and weight loss. She feels pain and stiffness in her shoulders and hips. She has also noticed she has a temporal headache and she has noticed her scalp tender when brushing her hair. Her ESR is raised. Which of the following is the most likely diagnosis?

1- Cluster Headache

2- Stills Disease

3- Migraine

**4- Temporal arteritis**

5- Polymyositis

Q1930. Which of the following is the most important factor in achieving peak bone mass?

1- Oestrogen

**2- Genetic factors**

3- Sun exposure

4- Weight bearing exercise

5- Diet

Q1931. What is the most common course that rheumatoid arthritis follows?

**1- Chronic persistent**

2- Palindromic

3- Transient

4- Remitting

5- Rapidly progressive

Q1932. Feltys Syndrome is most commonly associated with which HLA type?

1- HLA-DQ2

2- HLA-B27

**3- HLA-DRW4**

4- HLA-Cw

5- HLA-B51

Q1933. What is the most common cause of the high urate levels in gout?

**1- Reduced renal excretion of uric acid**

2- Reduced removal of uric acid by the liver

3- Reduced metabolism

4- Reduced protein binding

5- Increased production of uric acid

Q1934. An 7 year old presents due to a swelling below the left knee which is causing him some significant pain. This has been gradually increasing over the last few months. An x-ray is performed and shows a lytic lesion with sclerotic borders positioned in the upper tibial metaphysis. What is the most probable diagnosis?

1- Osteosarcoma

**2- Brodies abscess**

3- Healing fracture

4- Ewings sarcoma

5- Acute osteomyelitis

Q1935. An overweight 12 year presents with right hip pain. On examination there is restricted abduction and internal rotation. Which of the following is the most likely diagnosis?

1- Osteoarthritis

2- Perthes disease

3- Transient synovitis of the hip

**4- Slipped upper femoral epiphysis**

5- Septic Arthritis

Q1936. A 32 year old is on long term steroids. She presents with left hip pain and on examination there is restricted movement of abduction and internal rotation. Considering the most likely diagnosis, what investigation would be most useful to confirm it?

1- Blood culture

2- X-ray of the hip

3- Joint aspiration

4- Skeletal survey

**5- MRI of the hip**

Q1937. A 25 year old presents to her GP with proximal muscle weakness. She has also become increasingly short of breath and a cough. On examination there is obvious proximal muscle weakness and bibasal crackles. Her autoantibodies are checked and anti Jo-1 is positive. Other bloods reveal she has ARF with a CK of over 6000. Considering the diagnosis, what has caused the renal failure?

1- Wegeners Granulomatosis

**2- Acute tubular necrosis**

3- Acute glomerulonephritis

4- Goodpastures Syndrome

5- Nephrotic Syndrome

Q1938. A 62 year old presents with pain and swelling of her carpal metacarpal and distal interphalangeal joints. X-rays are performed and shows erosions of a gulls wing pattern. There is no osteophytes or Juxta-articular osteopaenia. Although ESR is slightly elevated, rheumatoid factor and all other autoantibodies are negative. What is the most likely diagnosis?

1- Pseudogout

**2- Erosive osteoarthritis**

3- Rheumatoid arthritis

4- Psoriatic arthritis

5- SLE

Q1939. A 60 year present with a swollen left painful knee. She is known to have rheumatoid arthritis, being treated with methotrexate and hydroxychloroquine. She feels unwell and is pyrexial. On examination the knee is very warm, swollen and movement of knee is very restricted. Her bloods show raised inflammatory markers and a normochromic, normocytic anaemia and elevated white cell count. What is the most important management?

1- Add Adaluminab

2- Aspiration of knee and injection with steroid

3- Analgesia

4- Commence oral antibiotics and discharge

**5- Aspiration of knee and send fluid for M, C + S**

Q1940. A 54 year old lady presents with joint pains. She gives a history of Raynauds syndrome and GI upset with diarrhoea and difficulty swallowing with some weight loss. She has some telangiectasia evident on her face. Bloods reveal a normochromic normocytic anaemia and positive anticentromere pattern. Which of the following is the most likely diagnosis?

1- Progressive systemic sclerosis

2- Rheumatoid arthritis

**3- CREST Syndrome**

4- Mixed connective tissue disease

5- Systemic lupus erythematosus

Q1941. A 35 year old gentleman presents with right leg pan. He had recent had a trauma to his right knee and had been treated for a septic arthritis. On examination there is evidence of a right knee effusion and generally right lower limb swelling and the skin is cool and dry. What is the most likely diagnosis?

1- Septic Arthritis

**2- Reflex sympathetic dystrophy**

3- Patellar tendon rupture

4- Fracture

5- DVT

Q1942. A 32 year old male presents with complaints of dry eyes and mouth. He also is complaining of abdominal discomfort, weakness and shortness of breath. He is known to have HIV. On examination there is evidence of parotid enlargement and hepatomegaly. Autoantibodies are negative. Which of the following is the most likely diagnosis?

1- Hepatitis B

2- Sicca Syndrome

3- Systemic lupus erythematosus

**4- Diffuse infiltrative lymphocytic syndrome**

5- Sjögrens

Q1943. A 64 year old gentleman presents with tenderness and swelling of the legs. The skin appears thickened and puckered and there is evidence of bilateral carpal tunnel syndrome. Blood tests reveal a high eosinophil count and hypergammaglobulinaemia. What is the most likely diagnosis?

1- Cellulitis

2- Amyloidosis

3- SLE

**4- Eosinophilic fasciitis**

5- Progressive systemic sclerosis

Q1944. What tendon abducts the arm from 0 to 90 degrees?

1- Infraspinatus tendon

**2- Supraspinatus tendon**

3- Subscapularis tendon

4- Teres major tendon

5- Teres minor tendon

Q1945. A 6 year old boy presents with a palpable purpuric rash on his buttocks and lower limbs. He is also complaining of joint pain in the knees and ankles and crampy abdominal pain. There is also evidence of haematuria. He has recently had an URTI. What is the most likely diagnosis?

**1- Henoch Sch**

2- Haemolytic Uraemic Syndrome

3- Stills Disease

4- Systemic lupus erythematosus

5- Intussusception

Q1946. What would you see on a renal biopsy of a patient with ankylosing spondylitis who has haematuria and proteinuria?

**1- IgA deposition**

2- Apple-green birefringence in polarised light

3- Complement and IgG deposition

4- Positive congo red staining

5- IgM deposition along basement membrane

Q1947. A 22 year old male presents with a swollen right knee. A few weeks earlier he had had bloody diarrhoea thought to be secondary to salmonella. He is otherwise well. On examination there is a large effusion of his right knee. How would you manage this patient?

**1- Exclude a septic arthritis then intra articular steroid injection**

2- Oral antibiotics

3- Oral Steroids

4- IV antibiotics

5- RICE advice

Q1948. A 24 year old male has recently had unprotected sex. He presents with arthritis, red watery eyes and dysuria. He also has noticed plaques on his hands. What is the most likely diagnosis?

1- Conjunctivitis

2- Stills Disease

3- UTI

4- Sero-negative arthritis

**5- Reiters syndrome**

Q1949. In a DEXA scan, how should a Z-score of 0 and a T-score of -0.8 be interpreted?

1- Osteopenia

2- Low calcium levels

**3- Normal BMD for age**

4- Repeat Scan

5- Osteoporosis

Q1950. A 34 year old female with SLE has severe renal involvement and is being treated with IV cyclophosphamide. She presents very unwell with pyrexia, cough and shortness of breath. She is found to be pancytopenic and her saturations are only 88% following a short walk. Her Chest X-ray shows diffuse reticular opacification. What is the most likely diagnosis?

**1- ARDS**

2- Community acquired pneumonia

3- MRSA pneumonia

4- Miliary TB

5- Pneumocystis jiroveci pneumonia

Q1951. In a patient with SLE who suffers from arthralgia and mouth ulcers, but no other organ involvement, how would you manage them?

1- Nil

2- Cyclophosphamide

3- Analgesia

4- Prednisolone

**5- Hydroxychloroquine**

Q1952. A 29 year old presents with a DVT. She has a previous history of SLE and recurrent miscarriages. Bloods reveal a prolonged APTR and low platelets. What is the most likely diagnosis?

1- Factor V Leiden deficiency

2- SLE

3- Primary antiphospholipid syndrome

4- Prothrombin Mutation

**5- Secondary antiphospholipid syndrome**

Q1953. A 35 year old with a known history of rheumatoid arthritis on prednisolone and hydroxychloroquine, presents with pyrexia and a LRTI. Bloods reveal a WCC of 7.0 with neutrophils of 6.0 and a raised CRFP and ESR. How should you manage this patient?

**1- Antibiotics and increase dose of prednisolone**

2- Nil

3- Stop hydroxychloroquine

4- Antibiotics

5- Increase prednisolone

Q1954. A 28 year old presents with a facial rash, joint pain and fever. There is no evidence of active synovitis and there is a malar butterfly rash over her nose and cheeks. Anti-ds-DNA and anti-Ro antibodies are positive. What is the most likely diagnosis?

1- Psoriasis

2- Stills Disease

**3- Systemic lupus erythematosus**

4- Systemic sclerosis

5- Rheumatoid arthritis

Q1955. A 34 year old immigrant presents with severe thoracic back pain. It is associated with fever, weight loss and night sweats. On examination there is kyphosis. An x-ray reveals vertebral destruction and narrowed joint space. Bloods reveal raised inflammatory markers and a raised ESR. Calcium levels are low. What is the most likely diagnosis?

1- Bony Metastases

2- Osteoporosis

3- Multiple myeloma

**4- Potts disease**

5- Fracture

Q1956. If a man is planning to start a family then what drug is safest in managing his rheumatoid arthritis?

1- Methotrexate

**2- Prednisolone**

3- Hydroxychloroquine

4- Sulfasalazine

5- Gold

Q1957. A 73 year old female has a long history of Rheumatoid Arthritis on methotrexate and hydroxychloroquine. However recently he has noticed peripheral oedema and swelling around his eyes. Urinalysis reveals protein and a 24 urine collection is suspected. You suspected nephrotic syndrome. What is the most likely diagnosis?

1- Drug-induced nephropathy

2- IgA nephropathy

3- Acute Tubular Necrosis

4- Membranoproliferative glomerulonephritis

**5- Amyloidosis**

Q1958. A 62 year old female presents with pain and stiffness of the joints around the pelvic girdle and shoulders and neck. Her morning stiffness in these areas lasts for approximately 2 hours. She is also complaining of scalp tenderness. She is also fatigued. Bloods reveal a normochromic normocytic anaemia and a raised ESR. Rheumatoid factor is negative. She has a mild pyrexia. What is the most likely diagnosis?

1- Polymyositis

**2- Polymyalgia rheumatica**

3- Dermatomyositis

4- Rheumatoid arthritis

5- Temporal arteritis

Q1959. A 32 year old female presents with gritty, dry and sore eyes. She has also noticed a dry mouth and dyspareunia. Her ESR is elevated and her ANA and anti-Ro are positive. What is the most likely diagnosis?

1- SLE

**2- Primary Sjögrens**

3- Dermatomyositis

4- Polymyositis

5- Conjunctivitis

Q1960. A 58 year old male presents with pain in his MCPs bilaterally, his ankles, wrists and knees. He is stiff for 3 hours in the morning. He has lost some weight. Bloods reveal raised inflammatory markers and a normochromic, normocytic anaemia. Rheumatoid factor and ANA are negative and a CK is 175. Which of of the following is the most likely diagnosis?

1- Polymyalgia rheumatica

2- Paraneoplastic syndrome

**3- Rheumatoid arthritis**

4- SLE

5- Osteoarthritis

Q1961. A 63 year old man with a history of hypertension is on bendroflumethiazide. He presents with an acutely swollen and very painful big toe. How would you reliably distinguish gout from a septic arthritis as the cause?

1- Raised Inflammatory markers

2- Erythema of joint

3- High Urate

**4- Negatively birefringent crystals in synovial fluid**

5- Pyrexia

Q1962. A 50 year old man presents with joint pain affecting his knee and wrist. He has been feeling generally unwell. On examination there is evidence of a target shaped rash on his shin and there is generalised lymphadenopathy. Which investigation will be helpful for the diagnosis?

1- Skin biopsy

2- Inflammatory markers

3- Autoantibodies

**4- Antibody titre for Borrelia burgdorferi**

5- Blood culture

Q1963. A 52 year old female who is obese complains of a numb, burning area on the anterolateral aspect of her thigh and on examination there is increased sensitivity to touch. What is the most likely diagnosis?

1- Sciatica

2- Osteoarthritis

**3- Meralgia paraesthetica**

4- Peripheral Neuropathy

5- Mononeuritis multiplex

Q1964. A 65 year old female presents a painful right knee. An x-ray of the knee shows linear calcification of the articular cartilage and lateral meniscus. Given the likely diagnosis, what would you find on aspiration of the joint?

1- Pus

2- No abnormality

3- Raised WCC

4- Negatively birefringent crystals

**5- Positively birefringent crystals**

Q1965. A 40 year old female presents with weakness. She has difficulty getting up from the chair and when climbing stairs. She is also fatigued, noticed weight loss and feeling fevered. On examination there is wasting of the pelvic girdle muscles and power is 4/5. Anti Jo-1 antibodies are positive. What is the most likely diagnosis?

1- Polymyalgia rheumatica

2- Dermatomyositis

3- Fibromyalgia

**4- Polymyositis**

5- Rheumatoid Arthritis

Q1966. A 32 year old presents due to his fingers being swollen and stiff and his hands becoming pale and painful when cold. He has also noticed becoming short of breath and has a dry cough. He has noticed difficulty swallowing. He is noted to be hypertensive. What is the most likely diagnosis?

1- Sarcoidosis

2- Tuberculosis

3- SLE

4- CREST syndrome

**5- Diffuse cutaneous scleroderma**

Q1967. A 58 year old male presents with a one month history of exertional dyspnoea and abdominal pain. He is fatigued and is complaining of myalgia and headache. He is also complaining of joint pain and is complaining of numbness of his feet. On examination there is evidence of purpura on his shins. His blood tests reveal renal impairment. What is the most likely diagnosis?

1- Rheumatoid arthritis

2- Fibromyalgia

3- SLE

4- Sarcoidosis

**5- Polyarteritis nodosa**

Q1968. A 60 year old woman complains of a few month history of hip and shoulder girdle pain and stiffness. She feels generally unwell and has lost some weight. On examination there is some painful restriction of movement at the shoulder and hips and some tenderness in the proximal muscle. She is also complaining of scalp tenderness. What is the most likely diagnosis?

1- Dermatomyositis

2- Rheumatoid Arthritis

3- Malignancy

4- Polymyositis

**5- Polymyalgia rheumatica**

Q1969. A 30 year old female of Asian origin presents with fatigue and symptoms of intermittent claudication in her jaw and hands and feet. She is found to be hypertensive however there is a 15 mm Hg difference in the blood pressure in the arms. Her pulses are weak. There is evidence of a bruit over the right subclavian. What is the most likely diagnosis?

1- Thoracic Outlet Syndrome

2- Coarctation of the aorta

3- Polyarteritis nodosa

**4- Takayasus disease**

5- SLE

Q1970. A 48 year old female with known Raynauds phenomenon presents as she has noticed certain areas of progressive skin tightness with thickness of the fingers, shortness of breath on exertion and difficulty swallowing. She is found to be hypertensive Which of the following is the most likely diagnosis?

1- Ehlers Danlos

2- CREST syndrome

3- Limited cutaneous scleroderma

**4- Diffuse cutaneous scleroderma**

5- Systemic lupus erythematosus

Q1971. A 50 year old gentleman with a history of type 2 Diabetes Mellitus and hypertension and who is obese presents with a painful, swollen knee. An X-ray reveals chondrocalcinosis and a joint aspiration is performed and it reveals on microscopy numerous neutrophils and rhomboid-shaped crystals, which are weakly positive birefringent. Which of the following is the most likely diagnosis?

**1- Pseudogout**

2- Gout

3- Septic arthritis

4- Rheumatoid Arthritis

5- Reactive Arthritis

Q1972. A 35 year old female presents with painful swollen PIPs bilaterally. She is also suffering from some knee pain and swelling and she is stiff in the morning for a couple of hours. On examination there is evidence of splenomegaly and she is pyrexial. Her bloods reveal a raised ESR and CRP and a low WCC. What is the most likely diagnosis?

1- Polymyositis

2- Psoriatic Arthritis

**3- Feltys syndrome**

4- Reactive arthritis

5- Malignancy

Q1973. A 12 year old boy known to have haemophilia presents with a painful swollen right knee. The movement of the knee is severely restricted by pain. Inflammatory markers are normal and rheumatoid factor is negative. What is the most likely diagnosis?

1- Gout

2- Septic Arthritis

3- Juvenile Idiopathic Arthritis

4- Osteoarthritis

**5- Haemophilic arthritis**

Q1974. A 50 year old male complains of dry eyes and mouth. Anti Ro and Anti La levels are high. Which of the following is the most likely diagnosis?

**1- Sjögrens**

2- Systemic lupus erythematosus

3- Raynauds Disease

4- Scleroderma

5- Sarcoidosis

Q1975. A 25 year old gentleman has recently returned from travelling abroad. He presents with a red eye and a swollen knee and ankle. He states he did have unprotected sex whilst travelling. What further investigation is required for the diagnosis?

1- Joint aspiration and culture

2- Blood culture

**3- History and physical examination**

4- Nil

5- Urine culture

Q1976. A 69 year old female with a previous history of rheumatoid arthritis, currently on methotrexate, presents with painful, swelling of her right knee. She is also pyrexial and generally unwell. What is the most likely diagnosis?

1- Pseudogout

2- Osteoarthritis

**3- Septic Arthritis**

4- Flair of Rheumatoid Arthritis

5- Gout

Q1977. A 22 year old female presents with a facial rash, fever and malaise. She is also complaining of painful joints in her wrists and fingers. What is most likely to be found in her bloods.

1- Anti double-stranded DNA antibodies

2- Positive rheumatoid factor

3- Anti Smooth muscle antibodies

**4- Low serum complement levels**

5- Microcytic Anaemia

Q1978. A 60 year old gentleman with a history of recurrent rhinitis and otitis media, presents with increasing shortness of breath on exertion. A CXR reveal multiple nodules throughout the lungs and a dipstick of his urine reveals a microscopic haematuria and proteinuria. What is the most likely diagnosis?

1- Systemic lupus erythematosus

2- Glomerulonephritis

3- Goodpastures syndrome

4- Rheumatoid Arthritis

**5- Wegeners granulomatosis**

Q1979. What blood test would be most useful in the diagnosis of limited cutaneous scleroderma?

1- Antinuclear antibodies

2- Anti Ro antibodies

**3- Anticentromere antibodies**

4- Anti smooth muscle antibodies

5- Rheumatoid factor

Q1980. A 65 year old woman is recovering in hospital following a knee replacement. She is known to have a history of alcohol excess and has had previously a duodenal ulcer for which she is on omeprazole. What would you prescribe for prophylaxsis for a DVT while she is post op.

1- Aspirin

2- Warfarin

**3- Subcutaneous low molecular weight heparin**

4- IV Heparin

5- Nil due to risk of bleeding

Q1981. A 64 year old gentleman who is known to drink alcohol excessively presents with a red, hot swollen ankle. What investigation should be performed for a definitive diagnosis?

1- Ankle X-ray

2- Urate levels

3- Blood culture

4- Joint aspiration and culture

**5- Joint aspiration and microscopy**

Q1982. An 80 year old male presents with a painful hip and knee. He is known to have a peptic ulcer and is on omeprazole. He has limited internal rotation of the hip. What analgesia do you prescribe initially?

1- Knee replacement

2- Cortisol injection

**3- Regular paracetamol**

4- Mild opiates

5- NSAIDs

Q1983. An 19 year old male presents with back pain and morning stiffness. It is relieved with exercise. An X-ray was performed of his lumbar spine and showed obliteration of the sacroiliac junction. What treatment is the most appropriate?

1- Bedrest

2- Opiates

3- Paracetamol

**4- NSAIDs**

5- Cortisol injection

Q1984. A 68 year old female has had pain in her left knee for numerous years. She is now waking up in the middle of the night with the pain and her knee is giving way and she has fallen several times. The knee is unstable on examination There is evidence of Herberdens and Bouchards nodes on the hands. How would you manage this patient?

1- NSAIDs

2- Cortisol injection

3- Physiotherapy

4- Paracetamol

**5- Referral for joint replacement**

Q1985. A 4 year old girl is complaining of pain in her thigh and hip. On examination she is tender on palpation of the thigh. Her bloods show elevated inflammatory markers. An ultrasound and x-ray of the hip and femur is normal. What is the most likely diagnosis?

1- Bone Tumour

2- Perthes disease

**3- Osteomyelitis**

4- Septic arthritis

5- Hip fracture

Q1986. A 13 year old boy is complaining of left hip pain. On examination, internal rotation of the hip is very limited. What is the most likely diagnosis?

1- Juvenile Idiopathic Arthritis

**2- Slipped upper femoral epiphysis**

3- Ewings Sarcoma

4- Perthes disease

5- Non-Accidental Injury

Q1987. A 3 year old girl is generally unwell and pyrexial. She is also unable to weight bear due to hip pain. Her inflammatory markers are markedly raised. An X-ray shows a widened joint space. What is the most likely diagnosis?

**1- Septic arthritis**

2- Osteomyelitis

3- Perthes disease

4- Slipped upper femoral epiphysis

5- Non-accidental injury

Q1988. A 9 year old boy is complaining of hip and groin pain. On examination he walks with a limp and there is limited restriction of all movements of the joint. An x-ray reveals flattening of the femoral head. What is the most likely diagnosis?

**1- Perthes disease**

2- Slipped upper femoral epiphysis

3- Septic Arthritis

4- Ewings Sarcoma

5- Osteomyelitis

Q1989. A 32 year old female presents with painful wrists and hands. Her wrists and hands are very stiff in the morning and only loosen off after 2 hours. On examination there is active synovitis in both wrists and over several PIPs and MCPs. What test is useful in aiding the diagnosis?

**1- Rheumatoid Factor**

2- Inflammatory markers

3- X-ray if hands and wrists

4- Anti dsDNA

5- Urate levels

Q1990. A 55 year old female presents with knee pain. She has problems for sometime with pain in her DIPs and the base of her thumb. On examination there is pain on the medial aspect of the knee joint and there is evidence of Bouchard and Herberdens nodes. She is tiff in the morning however the pain worsens in the evening and after movement. She has a family history of osteoarthritis. What investigation will give the definitive diagnosis?

1- Inflammatory markers

2- X-ray of knee

**3- Synovial membrane biopsy**

4- Rheumatoid Factor

5- X-ray of hands

Q1991. A 45 year old woman with a 10 year history of Rheumatoid Arthritis develops suddenly a painful, hot, swollen, tender knee with very restricted movement. How would you investigate?

1- X-ray of the knee

2- Blood culture

3- Joint fluid aspiration for crystal examination

**4- Joint fluid aspirate for microscopy and culture**

5- Inflammatory markers

Q1992. A patient with SLE presents with deteriorating vision over the last few months. On examination there is no evidence of redness in the sclera however it is difficult to perform opthalmoscopy due to opacities in the lenses of the eyes. Given the likely diagnosis, how you manage this?

1- Laser Therapy

2- Bimatoprost

3- Chloramphenicol drops

4- Advise her to visit the optician

**5- Referral for extracapsular lens extraction**

Q1993. A 64 year old gentleman presents with a left sided headache which is severe. He has noticed his scalp is very tender when brushing his hair. What treatment is required to ensure no vision loss occurs?

1- Bimatoprost

2- Intraocular steroids

**3- High dose oral steroids**

4- Azathioprine

5- Sumatriptan

Q1994. A 60 year old female presents with hip and shoulder girdle pain. She is generally lethargic and is stiff in the morning. She states she can barely brush her hair due to pain in her upper arm. She has an elevated ESR. Which of the following is the most likely diagnosis?

1- Osteoarthritis

**2- Polymyalgia rheumatica**

3- Fibromyalgia

4- Polymyositis

5- Dermatomyositis

Q1995. A 28 year old woman presents to her GP with general aches and pains. She is generally fatigued. On examination there is nothing specific to find however there is certain points when pushed which elicit pain. Her bloods are normal. Which of the following is the most likely diagnosis?

1- Polymyalgia rheumatica

2- Polymyositis

**3- Fibromyalgia**

4- Depression

5- SLE

Q1996. A 42 year old gentleman presents with difficulty climbing stairs and combing his hair. He is suffering from general malaise and is feeling feverish. On examination there is a proximal muscle weakness, a purplish rash around his eyelids and papules over his knuckles. What is the most likely diagnosis?

1- Giant Cell arteritis

2- Polymyalgia rheumatica

3- Polymyositis

4- SLE

**5- Dermatomyositis**

Q1997. A 15 year old female is brought to the GP as her parents have noticed she has a poor posture with rounded shoulders and a humped back. On examination there is severe kyphosis of the thoracic area. Given the likely diagnosis, what would you not expect to see on a thoracic Xray?

1- Irregular vertebral end plates

**2- Osteophytes**

3- Hyperkyphosis

4- Wedge shaped vertebral bodies

5- Schmorls nodes

Q1998. A 32 year old gentleman presents to A+E following a back injury. He is suffering from numbness, paraesthesia and weakness of the leg and has been unable to pass urine. On examination there is loss of peri anal sensation and it confirms reduced power and numbness in the left leg. What is your next course of action?

1- Steroids

2- Analgesia

**3- Urgent neurosurgical referral**

4- Bedrest

5- Lumbar Xray

Q1999. A 22 year old male who plays many sports regularly complains of intermittent swelling of his knee and locking. He suffers from knee pain after exercising. Arthroscopy is performed and shows several loose bodies in the synovial cavity. What is the most likely diagnosis?

1- ACL rupture

2- Meniscal Tear

**3- Osteochondritis dissecans**

4- Septic Arthritis

5- Osteoarthritis

Q2000. When managing polymyositis and dermatomyositis, what blood test can be utilised for monitoring the result?

1- Myositis specific antibody

2- CRP

**3- CK**

4- ESR

5- ANA levels

Q2001. A 70 year old female presents with sudden onset swollen and painful knee. She is generally unwell with a fever. What is the most likely diagnosis?

1- Pseudogout

2- Gout

3- Rheumatoid Arthritis

**4- Septic arthritis**

5- Osteoarthritis

Q2002. A 20 year old male presents with pain and stiffness in his lumbar spine relived by exercise. He is positive for HLA B27 gene. What is the most likely diagnosis?

1- Rheumatoid arthritis

2- Scheurmanns Disease

3- Osteoarthritis

4- Mechanical lower back pain

**5- Ankylosing spondylitis**

Q2003. A 25 year old gentleman presents to his GP with pains in his left knee and ankles. He is also suffering from dysuria and red eye. He has noticed plaques on the palms of his hands and soles of his feet and a rash on his glans penis. What is the most likely diagnosis?

1- Psoriatic Arthritis

2- SLE

3- Rheumatoid arthritis

**4- Reiters syndrome**

5- Reactive arthritis

Q2004. A 67 year old present with severe thoracic back pain. His bloods revealed renal impairment and an xray shows osteolytic lesions in his vertebrae. What is the most likely diagnosis?

1- Pagets Disease

2- Osteoporosis

**3- Multiple myeloma**

4- Metastatic Disease

5- Metastatic Prostate Cancer

Q2005. A 45 year old female has noticed arm weakness. She has noticed hat she has found it increasingly difficult to brush her hair, lift objects and climb stairs. On examination there is evidence of reduced power in her proximal muscles and wasting and bloods reveal an elevated CK. What is the most likely diagnosis?

**1- Polymyositis**

2- Fibromyalgia

3- Polymyalgia rheumatica

4- Myasthenia Gravis

5- Dermatomyositis

Q2006. A patient with psoriasis develops swelling and pain in the joints of her hands. On examination there is swelling and tenderness in the DIPs. What treatment is most useful?

1- PUVA

2- NSAIDs

3- Azathioprine

4- Steroids

**5- Methotrexate**

Q2007. A 42 year old farmer presents with arthralgia and myalgia, malaise and intermittent fever. There is evidence of lymphadenopathy and hepatosplenomegaly. Given the likely diagnosis, what treatment should be utilised?

1- Co amoxiclav and doxycycline

**2- Doxycycline and rifampicin and gentamicin**

3- Rifampicin and gentamicin

4- Doxycycline and Gentamicin

5- Doxycycline

Q2008. A 60 year old female from Asia presents complaining of pain in her bones and muscle weakness. An xray is performed of the femur and reveals linear low density areas surrounded by sclerotic areas. Bloods revealed elevated ALP, low phosphate and normal calcium levels. What is the most likely diagnosis?

1- Pagets disease

**2- Osteomalacia**

3- Renal Osteopdystrophy

4- Hyperparathyroidism

5- Osteoporosis

Q2009. A 63 year old female is found to have a pathological fracture of her femur. An Xray showed patchy sclerosis, thickening of the trabeculae and loss of distinction between the trabeculae and cortex. What treatment should be initiated?

1- Raloxifene

**2- Bisphosphonate**

3- Calcium and vitamin D supplements

4- Strontium

5- Calcitonin

Q2010. A 50 year old male presents with bone pain and lower back pain. On examination there is evidence of kyphosis, frontal bossing of the skull and deafness. What do you expect to find in blood results?

1- Low phosphate levels

**2- High ALP levels**

3- Low calcium levels

4- Elevated inflammatory markers

5- High phosphate levels

Q2011. A 40 year old man presents with arthralgia. He also gives a history of steatorrhoea and abdominal pain. A biopsy of the small bowel reveals stunted villi with PAS positive macrophages. What is characteristic of this disease?

1- Positive faecal calprotectin

2- ANA positive

3- Positive Rheumatoid Factor

4- Raised ESR

**5- Bacilli within macrophages on electron microscopy**

Q2012. A 24 year old known to have chlamydia presents with swelling in her knee and ankle. What is the most likely diagnosis?

1- Rheumatoid arthritis

2- Septic Arthritis

3- Gout

**4- Reactive arthritis**

5- Reiters Syndrome

Q2013. A 20 year old with back pain which is relieved with exercise and is associated with morning stiffness. An Xray shows obscuring of the sacroiliac joints. Which of the following treatments is helpful?

1- Opiates

**2- Physiotherapy and Spinal extension exercises**

3- Bedrest

4- Steroids

5- Spinal osteotomy

Q2014. What is the most characteristic finding on Xray of a patient with ankylosing spondylitis?

**1- Subchondral bony sclerosis at sacroiliac joints**

2- Narrowed disc space

3- Osteophytes

4- Widened disc space

5- Scoliosis

Q2015. What would you expect to find in the blood results of a patient with osteoporosis?

1- Low PTH levels

2- Low calcium levels

3- High ALP levels

**4- Normal calcium, phosphate and ALP levels**

5- High phosphate levels

Q2016. A 22 year old who has recently recovered from an episode of shigella gastroenteritis, presents with pain and swelling of his left knee and ankle. He also has noticed red eyes and a rash on his glans penis and plaques on his palms and soles. What other feature if present is highly indicative of Reiters Syndrome

1- Heliotropic rash

**2- Keratoderma blenorrhagica**

3- Psoriasis

4- HLA B27

5- Positive Rheumatoid Factor

Q2017. A 62 year old female with known osteoarthritis and diabetes presents with sudden swelling and pain in her left knee. It is hot, red and tender. What investigation should be performed?

1- Joint fluid microscopy

2- Analgesia

**3- Joint aspiration for gram stain, microscopy and culture**

4- Xray of knee

5- Blood culture

Q2018. A 32 year old female with psoriasis presents with painful swollen fingers with some deformity. What is the most appropriate treatment?

1- Etanercept

2- Azathioprine

**3- Methotrexate**

4- Corticosteroids

5- Sulfasalazine

Q2019. What HLA type is most associated with SLE?

1- HLA B27

2- HLA Cw

3- HLA DQ2

**4- HLA B8 and DR3**

5- HLA DR1

Q2020. What blood result abnormality is included in the ACR diagnostic criteria for polyarteritis nodosa?

1- Neutrophilia

2- ANCA

**3- Elevated urea or creatinine**

4- Microcyctic Anaemia

5- Rheumatoid factor

Q2021. How do you monitor the response of Giant cell arteritis to treatment?

1- CRP

**2- ESR**

3- Positive to negative temporal artery biopsy

4- Nil

5- Clinical response

Q2022. A 60 year old female presents with pain and stiffness of the shoulder, neck and hips. She is stiff for up to one hour in the morning. Her ESR is elevated. What is the most likely diagnosis?

1- Rheumatoid Arthritis

2- Polymyositis

**3- Polymyalgia rheumatica**

4- Frozen shoulder

5- Fibromyalgia

Q2023. A patient with rheumatoid arthritis for numerous years present with shortness of breath, mouth ulcers and malaise Bloods reveal a pancytopenia. What medications is likely to be the cause?

1- Diclofenac

2- Sulfasalazine

3- Steroids

**4- Gold**

5- Hydroxychloroquine

Q2024. What would you find in a patients blood results who is suffering from Feltys Syndrome?

1- High reticulocyte count

2- High platelet count

**3- Normocytic normochromic anaemia**

4- Rheumatoid Factor

5- Neutrophilia

Q2025. Which of the following feature is most indicative of an inflammatory arthritis?

**1- Morning stiffness for more than an half an hour**

2- Bouchards nodes

3- Anaemia

4- Swelling of joints

5- Pain worst after movement

Q2026. What deformity in Rheumatoid arthritis is likely to cause a finger drop?

1- Rheumatoid nodule

2- Swan neck deformity

3- Boutonniere deformity

**4- Swelling and dorsal subluxation of the ulnar styloid**

5- Ulnar deviation of MCPs

Q2027. In rheumatoid arthritis, what would you expect the synovial membrane to look like?

1- Normal

**2- Vascular proliferation on the synovial membrane**

3- Pale

4- Increased thickness

5- Normal membrane but viscous fluid

Q2028. Which feature in the history of someone with Osteoarthritis aids in deciding the best course of management?

1- Deformity

2- Multiple co-morbidities

3- Crepitus in joints

4- Osteophyte formation on X-ray

**5- History of severe pain and stiffness in the knees**

Q2029. A 68 year old male presents with leg pain on walking. His leg feel heavy and sometimes numb. It is worse walking down hill and is relieved when he stops and sits down. What is the most likely diagnosis?

1- Osteoarthritis

2- Intermittent claudication

3- Lumbar disc prolapse

4- Ankylosing Spondylitis

**5- Spinal stenosis**

Q2030. A 72 year old male has been suffering from neck pain for a number of years. He is now complaining of worsened pain and his left arm feeling weak and numb. On examination he has sensory loss in C5 and C6 dermatomes and he has 4/5 power in left shoulder abduction. Which of the following is the most likely diagnosis?

1- Osteoarthritis

2- Prolapsed cervical disc C7/T1

3- Polymyalgia Rheumatica

4- Cervical spondylosis

**5- Prolapsed cervical disc C5/C6**

Q2031. A 72 yea old male with cervical spondylosis presents with pain and weakness in both arms. He has also noticed them feeling numb and tingling. On examination there is evidence of LMN signs in his arms and UMN signs in his legs. How would you manage this patient?

**1- Urgent neurosurgical referral**

2- Support collar

3- Urgent CT of Head and Neck

4- Urgent C-spine X-ray

5- Analgesia

Q2032. A 37 year old female twisted her ankle a few weeks earlier. Since then she has had pain in her foot. She describes this as burning and is sometimes tingling. The symptoms are reproduced by pressing behind the medial malleolus. What is the most likely cause?

1- Fractured Lateral malleoli

2- Common peroneal nerve injury

3- Spinal nerve root compression

4- Fractured medial malleoli

**5- Posterior tibial nerve compression**

Q2033. A patient with rheumatoid arthritis is complianing of pain her left hand which is worse in the morning and sometimes wakes her from sleep. She also feels her hand is numb. On examination there is loss of sensation in her left thumb index, middle and radial half of ring finger. What clinical feature may you also observe?

1- Not associated with obesity

2- Negative Tinels test

3- Pain worse when resting

**4- Weakness and wasting of the muscles of the thenar eminence**

5- Pain relieved if the wrist is hyperfelexed

Q2034. A 23 year old female presents with a discoid rash. She is also complaining of painful joints and has noticed her skin being very sensitive in the sun. She has also noticed an increased frequency of oral ulcers. What is the most likely diagnosis?

1- Goodpastures Syndrome

2- Behcets disease

3- Psoriasis

4- Rheumatoid arthritis

**5- Systemic lupus erythematosus**

Q2035. A 23 year old female presents with a discoid rash, photosensitivity and painful joints. She has also noticed an increased frequency of oral ulcers. There is also evidence of microscopic haematuria and proteinuria. What antibody is specific to the diagnosis?

1- Anti-centromere antibody

**2- Anti dsDNA antibody**

3- Rheumatoid factor

4- Anti smooth muscle antibody

5- Antinuclear antibody

Q2036. A 65 year old presents with headache. He is also feeling feverish and generally unwell. He has also noticed his scalp is sensitive when he brushes his hair and is having pain when chewing. What treatment should you initiate?

1- Etanercept

2- Analgesia

**3- Oral corticosteroids**

4- IV corticosteroids

5- Rheumatology referral

Q2037. A 65 year old presents with headache. He is also feeling feverish and generally unwell. He has also noticed his scalp is sensitive when he brushes his hair and is having pain when chewing. What will make the definitive diagnosis?

1- Rheumatoid factor

2- CT angiogram

**3- Temporal artery biopsy**

4- ESR

5- Antinuclear antibody test

Q2038. A 63 year old female is complaining of pain around her shoulders and hip. She is very stiff in the morning. She is feeling fatigued. What is the most likely diagnosis?

1- Osteoarthritis

2- Fibromyalgia

**3- Polymyalgia rheumatica**

4- Systemic lupus erythematosus

5- Rheumatoid arthritis

Q2039. A 19 year old male presents generally unwell, feeling feverish. He has noticed a salmon pink, maculopapular rash on his trunk and arms. He is complaining of joint pain with painful and swollen distal interphalangeal joints are swollen. What is the most likely diagnosis?

1- Infectious mononucleosis

2- Secondary syphilis

3- Rheumatic Fever

4- Rheumatoid arthritis

**5- Adult Stills disease**

Q2040. A 33 year old gentleman has noticed recurrent mouth and genital ulcers. He is also suffering from diarrhoea intermittently and has complained of red eyes. What is the most likely diagnosis?

1- Pemphigus Vulgaris

2- SLE

3- Lichen Planus

**4- Behcets disease**

5- Syphilis

Q2041. A 45 year old patient with a raised BMI presents with a hot, swollen, red very painful big toe. How do you manage this?

1- Allopurinol

**2- Diclofenac**

3- Flucloxacillin

4- Steroids

5- Paracetamol

Q2042. A 45 year old patient with a raised BMI presents with a hot, swollen, red very painful big toe. What investigation would give the definitive diagnosis?

1- Urate levels

2- Joint fluid aspiration for microscopy

**3- ESR**

4- CRP

5- Rheumatoid factor

Q2043. A 45 year old patient with a raised BMI presents with a hot, swollen, red very painful big toe. What is the most likely diagnosis?

1- Rheumatoid arthritis

2- Pseudogout

3- Osteoarthritis

4- Septic arthritis

**5- Gout**

Q2044. A 13 year old boy presents to is GP. HE has been generally unwell with a fever for approximately one week. On examination there is evidence of bilateral conjunctivitis, cervical lymphadenopathy, erythema and desquamation and oedema of his hands and feet and his lips appear red and dry. Given the likely diagnosis, what treatment should be given?

1- Erythromycin

2- NSAIDs

**3- Aspirin and intravenous immunoglobulins**

4- Amoxicillin

5- Steroids

Q2045. A 13 year old boy presents to is GP. He has been generally unwell with a fever for approximately one week. On examination there is evidence of bilateral conjunctivitis, cervical lymphadenopathy, erythema and desquamation and oedema of his hands and feet and his lips appear red and dry. What is the most likely diagnosis?

1- Stills Disease

**2- Kawasaki disease**

3- Parvovirus

4- Infectious mononucleosis

5- Rubella

Q2046. A 72 year old female who is overweight presents with pains in her fingers. She has also noticed some pain in her knees. These are worst after movement and at the end of the day. On examination there is nil of note on knee examination and there is evidence of hard swelling at the PIPs and DIPs. What is the most likely diagnosis?

**1- Osteoarthritis**

2- Rheumatoid arthritis

3- Scleroderma

4- Psoriatic Arthritis

5- Gout

Q2047. A 42 year old female presents with dry, gritty eyes and a dry mouth. She is feeling tired and is having some difficulty swallowing. What is the most likely diagnosis?

1- Rheumatoid Arthritis

2- Malignancy

**3- Sjögrens syndrome**

4- SLE

5- Iron deficiency Anaemia

Q2048. A 28 year old female presents with joint pain in her wrists and hands. These are worst in the morning with significant morning stiffness. On examination there is evidence of active synovitis. What blood test should be performed?

1- ESR

2- ANCA

**3- Rheumatoid factor**

4- Urate Levels

5- CRP

Q2049. A 32 year old female presents with muscle weakness. She is finding it difficulty to climb stairs and brush her hair. Over her knuckles there is erythematous scaly papules. What is the most likely diagnosis?

1- Polymyositis

2- Polymyalgia Rheumatica

3- Psoriasis

**4- Dermatomyositis**

5- Systemic lupus erythematosus

Q2050. A 32 year old female presents with muscle weakness. She is finding it difficulty to climb stairs and brush her hair. Over her knuckles there is erythematous scaly papules and a purplish rash around her eyes. What associated disease should be suspected?

1- SLE

2- Psoriasis

**3- Malignancy**

4- Inflammatory bowel disease

5- Diabetes mellitus

Q2051. A 39 year old male presents with proximal muscle weakness. He has been feeling generally unwell for several months. He has noticed a malar rash with a purplish rash around his eyes. There is erythematous scaly lesions on his arms. His CK is elevated. How do you make the definitive diagnosis?

1- CT Chest abdomen and Pelvis

**2- Muscle biopsy**

3- ANA

4- Skins scrapings

5- Rheumatoid Factor

Q2052. A 52 year old woman with previous history of IBS presents with general aches and pains all over with stiffness in her hands and wrist, not worse at any time of the day. She has been unable to sleep because of the pain and is very fatigued. She is also suffering from band like headaches. On examination there are multiple tender spots over her hips and back. Blood results including auto antibodies are normal. What is the most likely diagnosis?

1- Rheumatoid Arthritis

2- IBS

**3- Fibromyalgia syndrome**

4- Depression

5- Chronic fatigue syndrome

Q2053. A 52 year old male presents with malaise, fever, headache and arthralgia. He complains of myalgia on exertion. He describes loss of sensation in his feet and notices his hands turn white and are painful in the cold. He is found to be hypertensive and a raised ESR. What is the most likely diagnosis?

1- Systemic lupus erythematosus

2- Rheumatoid Arthritis

**3- Polyarteritis nodosa**

4- Adult onset Stills disease

5- Polymyalgia rheumatica

Q2054. What should patients be warned about whilst on Raloxifene?

1- Must be taken in the morning, an hour before food

2- Can cause GI upset

3- Higher risk of breast cancer

4- Increases bone density

**5- Higher risk of clotting**

Q2055. A 28 year old gentleman presents with severe low back pain. It has been present for several months and he s very stiff in the morning. He has been woken several times during the night with it. The pain is relieved by exercise. What is the most likely diagnosis?

1- Metastatic Disease

**2- Ankylosing spondylitis**

3- Disc Prolapse

4- Spinal canal stenosis

5- Osteoporotic crush fracture

Q2056. What feature is indicative of gonococcal arthritis?

1- Pyrexia

2- Poly arthritis

3- Conjunctivitis

4- Wrist involved

**5- Tenosynovitis**

Q2057. How does psoriatic arthritis normally present?

1- Mono arthritis of the knee

2- Arthritis mutilans

3- Arthritis affecting the DIPs

**4- Peripheral asymmetric oligoarthropathy**

5- Arthritis affecting the MCPs and PIPs

Q2058. Which if these features is more indicative of a secondary Raynauds compared to a primary?

**1- Ulcers and gangrene**

2- No tissue damage

3- Female

4- Not associated with SLE

5- Age less than 30

Q2059. A 22 year old male is referred with a purpuric rash over his buttocks and lower legs. He has also notices some pain and swelling in his ankle , knees and wrists. He is also complaining of crampy abdominal pain. A dipstick of his urine reveals microscopic haematuria. He suffered a cold recently. What is the most likely diagnosis?

1- Wegeners Granulomatosis

2- Goodpastures Syndrome

**3- Henoch Schönlein purpura**

4- Haemolytic uraemic syndrome

5- Post Streptococcal glomerulonephritis

Q2060. A 70 year old female presents with shoulder and pelvic girdle pain. She is stiff for approximately 2 hours in the morning. She is feeling generally unwell. She has painful active movements of the shoulders and hips. Her ESR is markedly elevated whilst her CRP is normal. What is the most likely diagnosis?

1- Polymyositis

2- Rheumatoid arthritis

**3- Polymyalgia rheumatica**

4- Osteomalacia

5- Osteoarthritis

Q2061. A 42 year old Asian female presents with proximal muscle weakness and bony pain. She is found to have a low calcium and phosphate and a high ALP. An Xray of her femur shows loosers zones. What is the most likely diagnosis?

**1- Osteomalacia**

2- Bony Metastases

3- Hyperparathyroidism

4- Hypoparathyroidism

5- Osteoporosis

Q2062. A 28 year old known to have Raynauds phenomenon presents with painful, tight and swollen tips of fingers and a tight mouth. Anticentromere antibodies are positive. What is the most likely diagnosis?

1- Systemic lupus erythematosus

2- Rheumatoid Arthritis

3- Psoriatic Arthritis

**4- Limited cutaneous systemic sclerosis**

5- Diffuse cutaneous systemic sclerosis

Q2063. A 30 year old with Rheumatoid arthritis presents with dry mouth and gritty eyes. What is the most likely diagnosis?

1- Limited cutaneous systemic sclerosis

**2- Secondary Sjögrens**

3- Feltys Syndrome

4- Systemic lupus erythematosus

5- Primary Sjögrens

Q2064. A 60 year old gentleman presents with proximal muscle weakness and has noticed a rash on his knuckles and a purplish rash around his eyes. His CK is elevated. He also admits to having significant weight loss and a cough and haemoptysis. Which antibody would you expect to find?

1- Anti dsDNA

2- Anti centromere

**3- Anti Jo 1**

4- Anti CCP

5- Rheumatoid Factor

Q2065. A 23 year old presents with asthma and recurrent rhinitis develops purpura, right foot and wrist drop and bloods reveal acute renal failure, elevated eosinophils and pANCA positive. What is the most likely diagnosis?

**1- Churg Strauss syndrome**

2- Wegeners granulomatosis

3- Polyarteritis nodosa

4- Henoch Schönlein Syndrome

5- Haemolytic Uraemic Syndrome

Q2066. A 35 year old male with Crohns disease, who is currently having a flare, presents with a swollen painful right knee and raised bruise like lesions on his legs. What is the most likely diagnosis?

1- Reiters Syndrome

2- Erythema nodosum

3- Osteomalacia

**4- Enteropathic arthritis**

5- Reactive arthritis

Q2067. A 37 year old who has a long standing history of back pain and kyphosis is complaining of shortness of breath on exertion. There is crepitations at the apices of the lungs and an Xray of the spine shows ossification of the anterior longitudinal ligament and blurring of the sacroiliac joints. What is the most likely diagnosis?

1- Pulmonary Fibrosis

2- Tuberculosis

3- Allergic Alveolitis

**4- Ankylosing spondylitis**

5- Scheuermanns disease

Q2068. A patient presents with recurrent dislocation of his shoulder. On examination he is hypermobile, has loose skin and you notice lots of bruising. What is the most likely diagnoses?

1- Marfans syndrome

2- Recurrent dislocation syndrome

**3- Ehlers Danlos syndrome**

4- Inflammatory arthritis

5- Cushings Disease

Q2069. A 28 year old with sickle cell disease present with left hip pain. An Xray reveals loss of the femoral head and periarticular sclerosis. What is the most likely diagnosis?

1- Osteoporosis

**2- Avascular necrosis**

3- Perthes disease

4- SUFE

5- Osteoarthritis

Q2070. A 50 year old with obesity and hypertension present with pain and swelling in his left first MTP. On examination there is evidence of swelling and erythema over his first MTP. He is currently on Bendroflumethiazide, amlodipine and ramipril for his hypertension and also aspirin and orlistat. There is nil else of note on examination. An x-ray of his left foot shows reduced join space and calcification. Which drug could be causative?

1- Amlodipine

2- Aspirin

3- Orlistat

**4- Bendroflumethiazide**

5- Ramipril

Q2071. A 50 year old presents with sudden onset, atraumatic shoulder pain. On examination there is tenderness over the greater tuberosity of the humerus and subacromial bursa and there is a restriction in his range of abduction. An xray reveals calcification of the supraspinatus tendon. What is true regarding calcification of the supraspinatus tendon?

**1- The calcification is most likely composed of calcium hydroxyapatite crystals**

2- The calcification is most likely composed of Calcium pyrophosphate

3- The calcification is most likely composed of calcium urate crystals

4- NSAIDS and physio are not useful

5- It does not ever also involve the infraspinatus

Q2072. In regards to methotrexate, what is true?

1- A patient does not need to be on birth control

2- It is not associated with GI side effects

3- Bloods should be checked every 3 months

4- Pancytopenia is not a side effect

**5- The peak improvement is seen in 4-6 months**

Q2073. Which of the following is least useful in monitoring disease activity in SLE?

1- Complement levels

2- ESR

3- Symptomology

4- Anti dsDNA

**5- ANA**

Q2074. A 65 year old gentleman with rheumatoid arthritis presents with difficulty moving his right shoulder. He is complaining of a dull ache of his shoulder. On examination he is unable to actively abduct his arm however once abduction is initiated passively he can keep his arm elevated. What is the most likely diagnosis?

1- Rotator cuff tendonitis

2- Rheumatoid arthritis

3- Osteoarthritis

4- Adhesive capsulitis

**5- Torn rotator cuff**

Q2075. A 60 year old male presents to his GP complaining of pain in his legs. He is also complaining of lower back pain and knee pain. On examination there is bowing of the tibia. He is otherwise fit and well. Bloods reveal an elevated ALP, normal calcium and phosphate level. Which of the following is the most likely diagnosis?

**1- Paget's Disease**

2- Rickets

3- Bony Metastases

4- Osteomalacia

5- Osteoporosis

Q2076. A 25 year old male presents with pain and swelling in the left knee. He is also complaining of low back pain and malaise. He has also noticed that it has been painful when he is urinating. He has recently had unprotected sex. A joint aspiration does not culture any microorganisms but there is elevated neutrophils. He is intolerant to NSAIDs. Which of the following is the next most appropriate management choice?

1- Methotrexate

2- Paracetamol

3- Sulfasalazine

**4- Intra-articular steroid injection**

5- IM Diclofenac

Q2077. A 32 year old swedish female presents with arthralgia, cough and fever. She has also noticed bruise like lesions on her shins. On examination there is bilateral ankle arthritis and erythema nodosum. A CXR shows bilateral hilar lymphadenopathy. What is the most likely diagnosis?

1- Lymphoma

**2- Lofgren syndrome**

3- SLE

4- Rheumatoid arthritis

5- Tuberculosis

Q2078. A 29 year old presents with a DVT. She has a previous history of SLE and recurrent miscarriages. Bloods reveal a prolonged APTR and low platelets. What is the most likely diagnosis?

1- SLE

2- Primary antiphospholipid syndrome

3- Factor V Leiden

4- Prothrombin mutation

**5- Secondary antiphospholipid syndrome**

Q2079. In a patient with SLE who suffers from arthralgia and mouth ulcers, but no other organ involvement, how would you manage them?

1- Nil

2- Prednisolone

3- Analgesia

**4- Hydroxychloroquine**

5- Cyclophosphamide

Q2080. A 54 year old lady presents with joint pains. She gives a history of Raynaud's syndrome and GI upset with diarrhoea and difficulty swallowing with some weight loss. She has some telangiectasia evident on her face. Bloods reveal a normochromic normocytic anaemia and positive anticentromere pattern. Which of the following is the most likely diagnosis?

1- Mixed connective tissue disease

2- SLE

3- Rheumatoid arthritis

4- Progressive systemic sclerosis

**5- CREST syndrome**

Q2081. A 64 year old gentleman presents with a left sided headache which is severe. He has noticed his scalp is very tender when brushing his hair. What treatment is required to ensure no vision loss occurs?

1- Azathioprine

2- Bimatoprost

**3- High dose oral steroids**

4- Intraocular steroids

5- Sumatriptan

Q2082. A 19 year old male is complaining of back pain. It is stiff in the morning and the pain and stiffness eases with exercise. What are you likely to find on clinical examination?

1- Tenderness over thoracic spine

2- Positive straight leg raising

3- Nil specific

**4- Tenderness over the sacroiliac joint**

5- Focal neurology

Q2083. A 28 year old male presents with recurrent mouth and genital ulcers, diarrhoea and red eye. On examination there is evidence if apthous ulcers in his mouth and genital ulcers. His eye appears injected around the iris and he is photophobic. He has raised inflammatory markers. What is the most likely diagnosis?

1- SLE

2- Ulcerative colitis

**3- Behcets disease**

4- Secondary syphilis

5- Crohns disease

Q2084. A 72 year old man presents with 4 presumed syncopal episodes over the last 7 months. On one occasion she witnessed dysarthria, confusion and right sided weakness. he has no chest pain. He had suffered from an extensive Myocardial Infarction previously. The only finding on clinical examination is a displaced apex beat . His bloods are unremarkable but an ECG revealed anterior ST elevation. What further investigation is the most appropriate for diagnosis of the underlying diagnosis?

1- Admit to CCU and observe

2- Coronary angiography

3- Thrombolysis

**4- Cardiac MRI**

5- CT Head

Q2085. A 69 year old male presents with pyrexia of unknown origin. He has no previous medical history. He has had some recent dental work. On examination he is found to be pyrexial with a temperature of 38.5oC. On auscultation of the heart there is evidence of a pansystolic murmur in the apical region. An echo is organised and reveals a vegetation and blood cultures reveal S. bovis. He is started on IV antibiotics. What investigation must be organised for this patient?

**1- Colonoscopy**

2- Repeat blood cultures

3- Upper GI endoscopy

4- Nil required

5- Repeat Echo

Q2086. What HLA type is associated with rheumatoid arthritis?

**1- HLA DR4**

2- HLA B27

3- HLA B51

4- HLA DQ2

5- HLA cW

Q2087. A 24 year old male has recently had unprotected sex. He presents with arthritis, red watery eyes and dysuria. He also has noticed plaques on his hands. What is the most likely diagnosis?

1- Seronegative arthritis

2- Conjunctivitis

3- Stills disease

4- UTI

**5- Reiters syndrome**

Q2088. Which of the following is a poor prognostic sign in Rheumatoid Arthritis?

1- Rheumatoid factor negative

2- Juxta articular osteopenia

3- Age >60

**4- Early bony erosions**

5- Early morning stiffness

Q2089. A 25 year old female who works as a gym instructor presents with a three week history of severe right shoulder pain. The pain is throbbing in nature and had an acute onset with the pain worst at this time and it has gradually improved. It is exacerbated by any movement of the shoulder. His arm is held in adduction and internal rotation. There is weakness of the deltoid and serratus anterior muscle. There is normal sensation and reflexes are normal. Which of the following is the most likely diagnosis?

1- Amyotrophic Lateral Sclerosis

2- Trauma

**3- Brachial Neuritis**

4- Supraspinatus tendonitis

5- Adhesive Capsulitis

Q2090. A 55 year old female has recently been commenced on carbamazepine and now presents with generalised joint pains. There is not much to find on examination however she has a positive anti-SS DNA, positive anti-Ro and a reduced C4. What is the most likely diagnosis?

1- SLE

**2- Drug induced lupus**

3- Reactive Arthritis

4- Pseudogout

5- Osteoarthritis

Q2091. What molecule contributes significantly to the pathophysiology of rheumatoid arthritis?

1- IL-2

2- IL-10

3- Prostaglandins

**4- TNF-alpha**

5- G-CSF

Q2092. A 34 year old male presents with left neck and shoulder pain. He also notices a tingling sensation in his left forearm which is particularly noticeable on carrying his briefcase or shopping bags. He also complains of his left hand turning cold and white on occasion. On examination there is evidence of wasting in his thenar muscle and sensory loss over the ulnar aspect of the forearm. There is pallor of his left arm when elevated and loss of his left radial pulse on abduction and external rotation of his left shoulder. Which of the following is the most likely diagnosis?

1- Brachial Neuritis

**2- Thoracic Outlet Syndrome**

3- Frozen Shoulder

4- Cervical Spondylosis

5- Cervical Radiculopathy

Q2093. A 36 year old female presents with joint pain and swelling in the small joints of both hands. Bloods reveal an elevated ESR and Anti-CCP is positive. Which of the following is the most likely diagnosis?

1- Reactive Athritis

2- SLE

3- Osteoarthritis

**4- Rheumatoid Arthritis**

5- Reiter's Syndrome

Q2094. A 40 year old female with rheumatoid arthritis presents with pain and numbness in the thumb and first 3 fingers. On examination there is reduced sensation over the thumb, whole of the ring and middle finger and radial aspect of the ring finger. There is also wasting of the thenar muscle. What is the most likely diagnosis?

1- Peripheral neuropathy

2- De Quervains Tendonitis

**3- Carpal tunnel syndrome**

4- Radial nerve compression

5- Ulnar nerve compression

Q2095. A 4 year old girl is complaining of pain in her thigh and hip. On examination she is tender on palpation of the thigh. Her bloods show elevated inflammatory markers. An ultrasound and x-ray of the hip and femur is normal. What is the most likely diagnosis?

1- Bone tumour

**2- Osteomyelitis**

3- Perthes disease

4- Septic arthritis

5- Hip fracture

Q2096. A 75 year old female with known osteoarthritis presents with a painful thumb. She is otherwise well and there is no history of trauma. On examination there is swelling and tenderness in the first carpometacarpal joint. She is apyrexial. Blood tests are normal. What is the most likely diagnosis?

1- Rheumatoid arthritis

2- Gout

3- Pseudogout

**4- Osteoarthritis**

5- Fracture

Q2097. A 62 year old presents with pain and swelling of her carpal metacarpal and distal interphalangeal joints. X-rays are performed and shows erosions of a gull's wing pattern. There is no osteophytes or Juxta-articular osteopaenia. Although ESR is slightly elevated, rheumatoid factor and all other autoantibodies are negative. What is the most likely diagnosis?

**1- Erosive osteoarthritis**

2- Psoriatic arthritis

3- SLE

4- Rheumatoid arthritis

5- Pseudogout

Q2098. n limited cutaneous systemic sclerosis which antibody if most specific?

1- ANCA

**2- Anti centromere**

3- Rheumatoid factor

4- Anti Ro

5- Anti Jo1

Q2099. A 70 year old male presents with back pain. He has recently had an aortic valve replacement. He is unwell and pyrexial and he has tenderness over L2 and restricted movement due to this back pain. His inflammatory markers are elevated. There is no evidence of focal neurology and nil else of note on examination. What is the most likely diagnosis?

1- Lumbar disc prolapse

2- Spinal Abscess

**3- Discitis**

4- Cauda Equina Syndrome

5- Infective Endocarditis

Q2100. Which of the following if deficient is associated with SLE?

**1- C1q**

2- C3

3- C9

4- C5

5- C7

Q2101. A 54 year old gentleman has been renovating his home. He now presents with a painful elbow that radiates down the back of his forearm. He states the pain is worse on movement and he has been building DIY furniture but now finds it difficult to use a screwdriver or even hold a cup of coffee, due to the pain. On examination pain is worsened on resisted wrist extension. What is the most likely diagnosis?

1- Cervical radiculopathy

2- Medial Epicondylitis

3- Ulnar nerve palsy

**4- Lateral Epicondylitis**

5- De Quervain's tendonitis

Q2102. A 60 year old female presents with sudden onset left hip pain which she is unable to weight bear on. On examination there is no obvious abnormality but there is very limited flexion, internal and external rotation. An Xray reveals collapse of the femoral head and joint sclerosis. Bloods are normal. She has recently underwent treatment for CML. What is the most likely diagnosis?

1- Osteoarthritis

**2- Avascular necrosis**

3- Bony metastases

4- DVT

5- Rheumatoid arthritis

Q2103. A 45 year old patient presents with reflux and dysphagia. She also notices her fingers becoming painful and blue in the cold weather. She also notices intermittent joint pains. On examination there is evidence of telangiectasia and soft tissue calcification and sclerodactyly on examination of her hands. What autoantibody is likely to be found?

1- c-ANCA

2- Rheumatoid factor

**3- Anti-centromere**

4- p-ANCA

5- Anti-mitochondrial

Q2104. A 65 year old female presents with right knee pain. She has a history of hypertension. On examination she has a raised BMI, there is no obvious abnormalities at the knee but painful internal rotation of the hip. What investigation would you perform?

1- Blood cultures

2- Uric level

3- Bone scan

4- MRI knee

**5- Left hip X-ray**

Q2105. A 75 year old female with known osteoarthritis presents with a painful thumb. She is otherwise well and there is no history of trauma. On examination there is swelling and tenderness in the first carpometacarpal joint. She is apyrexial. Blood tests are normal. What is the most likely diagnosis?

**1- Osteoarthritis**

2- Pseudogout

3- Rheumatoid arthritis

4- Gout

5- Fracture

Q2106. A 60 year old male presents with swelling of his knee. An xray reveals osteophytes and loss of joint space. A diagnostic arthrocentesis is obtained. In the aspirate what would you not expect to find?

**1- Low glucose level**

2- Pale yellow fluid

3- No organisms grown

4- Low white cell count

5- No evidence of crystals

Q2107. A 52 year old presents with a history of being generally unwell, recurrent sinusitis and an urine dipstick reveals blood and protein. He then has a massive haemoptysis and noted to be in ARF. How would you manage this patient?

1- IV Cyclophosphamide

2- Blood transfusion

3- IV steroids

**4- IV steroids and cyclophosphamide**

5- Oral steroids

Q2108. A 50 year old gentleman presents with shoulder pain. This is worst during the middle degree of abduction and he is unable to initiate abduction. There is no evidence of active synovitis. What is the most likely diagnosis?

1- Gout

**2- Supraspinatus tendonitis**

3- Osteoarthritis

4- Adhesive capsulitis

5- Septic arthritis

Q2109. A 58 year old gentleman presents with pain in his hands. He states in it his second and third fingers on both hands which are affected. On examination there is evidence of swelling and stiffness in his second and third MCPs on both hands although there is no evidence of warmth or erythema. On further questioning he states he has been fatigued and is having trouble with impotence. He has no other past medical history but does admit to drinking excessively at times. On further examination he appears very suntanned and there is hepatomegaly. His bloods reveal deranged LFTs.

1- Osteoarthritis

2- Alcohol related liver disease

3- SLE

**4- Haemochromatosis**

5- Gout

Q2110. A 65 year old female presents with fatigue and muscle weakness. Bloods reveal a macrocytic anaemia, raised CK and Anti-thyroid peroxidase antibodies are positive. What is the most likely diagnosis?

1- Vitamin B12 deficiency

2- Polymyositis

3- Polymyalgia Rheumatica

4- Cushing's Disease

**5- Hypothyroidism**

Q2111. A 58 year old female presents with fever, malaise, myalgia and weight loss for several weeks. On examination he is pyrexial, tachycardic and hypertensive. His chest is clear, heart sounds pure and abdominal examination is normal. Urinalysis reveals blood 2+ and protein 2+. Bloods reveal elevated ESR and WCC. There is a normocytic anaemia and evidence of elevated creatinine. Blood cultures are negative. Which of the following investigations is most likely to provide the definitive diagnosis?

1- Renal Biopsy

2- T spot test

3- Echocardiogram

**4- ANCA**

5- Repeat blood cultures

Q2112. A 67 year old female presents with bilateral shoulder pain and stiffness which came on suddenly about 3 weeks ago. She also describes aching in the pelvic girdle. She is stiff for about 45 minutes in the morning. Which of the following will most likely provide the diagnosis?

1- Muscle biopsy

2- Rheumatoid Factor

3- Anti nuclear antibody

4- Shoulder Xray

**5- ESR**

Q2113. A 67 year old female presents with bilateral shoulder pain and stiffness which came on suddenly about 3 weeks ago. She also describes aching in the pelvic girdle. She is stiff for about 45 minutes in the morning. An ESR is normal. Which of the following will confirm the most likely diagnosis?

1- Muscle Biopsy

2- CRP

3- Anti nuclear antibody

4- Rheumatoid Factor

**5- Improvement of symptoms with steroids**

Q2114. A 55 year old male has been commenced on treatment for tuberculosis. He has no other past medical history. One month into his treatment he presents pains in the small joints of his hands, wrists and knees and his joints are stiff in the morning. He is also suffering from malaise, mild fever and weight loss. Bloods reveal anti nuclear antibodies and anti histone and anti ssDNA antibodies. Which of the following is the most likely diagnosis?

1- Progression of Tuberculosis

2- Rheumatoid Arthritis

3- Systemic Lupus Erythematosus

4- Reactive Arthritis

**5- Drug-Induced Lupus Erythematosus**

Q2115. A 25 year old male presents with pain and swelling in the left knee and ankle. He is also complaining of low back pain, malaise and fever. He has also noticed that it has been painful when he is urinating. He has shallow painless ulcers at meatus and glans penis. There is evidence of conjunctivitis. A joint aspiration does not culture anything. He has recently had unprotected sex. Which antibiotic should be utilised?

**1- Doxycycline**

2- Ciprofloxacin

3- Amoxicillin

4- Erythromycin

5- Ceftriaxone

Q2116. 23 year old female presents with an acutely swollen right knee. In the previous week she has been unwell with fever and myalgia and she noticed small pustular lesions on her distal forearms and hands. She then had pain in her left wrist and dorsum of wrist and hand, then left elbow and knees. These pains settled but her right knee remained swollen and painful. She has recently had unprotected sex. Her WCC and CRP are greatly elevated. A gram stain of a joint aspirate reveals a gram negative diplococcus. Culture of the knee aspirate is awaited.

1- Azithromycin

**2- Ceftriaxone**

3- Doxycycline

4- Ciprofloxacin

5- Amoxicillin

Q2117. A 45 year old male presents with severe right shoulder pain. This has been present and gradually worsening over the last two weeks. He has recently injured this shoulder. He states he is unable to move his shoulder in any direction due to the pain. On examination there is restriction on all passive movements. Which of the following is the most likely diagnosis?

1- Osteoarthritis

2- Supraspinatus Tendonitis

**3- Adhesive Capsulitis**

4- Rotator Cuff Injury

5- Polymyalgia Rheumatica

Q2118. A 35 year old female who has recently started to train for a marathon presents with left hip pain. This is over the lateral side of her hip and radiates down her thigh and is worse when she lies on it at night. On examination there is tenderness over the greater trochanter and the pain reproduced by external rotation. What is the most likely diagnosis?

1- Osteoarthritis

2- Soft Tissue Injury

3- Avascular Necrosis

**4- Trochanteric Bursitis**

5- Impacted hip fracture

Q2119. A patient presents with acute pain and swelling of their right knee. They have been recently unwell. They are pyrexial and on examination the joint is warm, red, extremely tender and greatly reduced ROM due to pain. What investigation should be performed for the definitive diagnosis?

1- Blood cultures

**2- Aspiration of joint**

3- Inflammatory markers

4- Urate levels

5- Right knee x-ray

Q2120. In which of the following would you avoid etanercept?

**1- Use with sulphasalazine**

2- Use with NSAIDs

3- Can be used in any combination

4- Use with methotrexate

5- Use with penicillamine

Q2121. A 40 year old female who is on long term steroids for Polymyalgia Rheumatica presents with sudden onset left hip pain. This is severe and she is unable to put any pressure on it. There is no history of trauma. On examination there is no obvious abnormality however there is a great reduction in left hip flexion and internal and external rotation. A hip x-ray reveals sclerosis of the femoral head. What is the most likely diagnosis?

**1- Avascular necrosis**

2- Osteomyelitis

3- Osteoarthritis

4- Impacted hip fracture

5- Pathological fracture

Q2122. A 50 year old male presents with erectile dysfunction. On further questioning he has also noticed arthralgia of his hands, wrists and knees. He is also complaining of polyuria and polydipsia. On examination he looks tanned. His LFTs are deranged and a random glucose is 12. What is the most likely diagnosis?

1- Wilsons disease

2- Autonomic Neuropathy

3- SLE

4- Type 2 diabetes mellitus

**5- Haemochromatosis**

Q2123. A 35 year old female presents with pyrexia, fatigue and joints pains affecting the wrists and hands. She also has a facial malar rashyear-old woman. She has an elevated ESR. You suspect she has SLE. What anti-nuclear antibody titre level would confirm a likely diagnosis of SLE?

1- 1:16

2- 1:4

3- 1:400

**4- 1:1600**

5- 1:40

Q2124. A 24 year old female with brittle asthma on long term steroids, presents with sudden onset left hip pain which she is unable to weight bear on. On examination there is no obvious abnormality but there is very limited flexion, internal and external rotation. An Xray reveals collapse of the femoral head and joint sclerosis. Bloods are normal. What is the most likely diagnosis?

1- Septic arthritis

2- Perthes Disease

3- Osteoarthritis

**4- Avascular necrosis**

5- SLE

Q2125. A 20 year old has returned from holiday and presents to his GP with diarrhoea and knee pain. He also has conjunctivitis and erythematous scaly plaques on his palms and soles. His knee is swollen and tender. What is the most appropriate management in this case?

1- NSAIDs

**2- Intra-articular corticosteroid injection**

3- Azithromycin

4- RICE advice

5- Oral Prednisolone

Q2126. A 28 year old male presents with recurrent mouth and genital ulcers, diarrhoea and red eye. On examination there is evidence if apthous ulcers in his mouth and genital ulcers. His eye appears injected around the iris and he is photophobic. He has raised inflammatory markers. What is the most likely diagnosis?

1- Chrons Disease

**2- Behcets disease**

3- SLE

4- Ulcerative colitis

5- Secondary Syphillis

Q2127. Bisphosphonates should be swallowed as a whole tablet with lots of water whilst sitting or standing and should be taken at least 30 minutes before food or other tablet. Why is this?

1- Reduce interaction with other drugs

2- To ensure compliance

3- Improve absorption

**4- Reduction of GI side effects**

5- Improve bioavalability

Q2128. A 70 year old who is on warfarin for a pulmonary embolus presents with acute gout. How would you manage this patient?

1- Allopurinol

2- Colchicine

3- Weak opioids

4- NSAIDs

**5- Prednisolone**

Q2129. A 33 year old female presents with symmetrical polyarthritis, affecting predominantly her PIPs and her wrists. It takes about 3 hours for her joints to loosen off in the morning. She is found to have a very positive rheumatoid factor. What would you expect to see on an x-ray of her hands?

1- No changes

2- Juxta-articular sclerosis

3- Osteophyte formation

**4- Juxta-articular osteopaenia**

5- Widened joint space

Q2130. A 43 year old presents in winter after noticing her fingers become painful and blue when it is cold. She has also noticed thick skin on her hands. She also complains of heartburn. On examination she has sclerodactyly and telangiectasia. Her anticentromere antibody is positive and her bloods reveal renal impairment. Considering the most likely diagnosis, what would be the most likely cause of death?

1- GI haemorrhage

2- Interstitial Lung Disease

**3- Renal Failure**

4- Malignancy

5- Myocardial Infarction

Q2131. What is an early sign on x-ray of ankylosing spondylitis?

1- Bamboo spine

2- Wedge fractures

**3- Subchondral bony sclerosis adjacent to sacroiliac joints**

4- Syndesmophytes

5- Costovertebral joint fusion

Q2132. A 19 year old presents with lumbosacral back pain which is worst in the morning and improves with exercise. What investigation do you organise to confirm the diagnosis?

1- MRI spine

2- Auto-antibodies

3- Inflammatory markers

4- B27 - HLA testing

**5- Lumbosacral spine x-ray**

Q2133. A 30 year old female presents with sudden onset left hip pain with no history of trauma. She has a history of brittle asthma, on long term steroids. On examination there is reduction of flexion, abduction and internal rotation in the left hip. What is the most sensitive investigation for the definitive diagnosis, you would organise in the first instance?

1- X-ray

2- MRI of hip

3- CT scan

4- Ultrasound of hip

**5- Bone scan**

Q2134. A 24 year old female presents with fever, salmon coloured rash and joints pains. On examination there is a salmon coloured rash over her trunk and there is a symmetrical polyarthritis. There is also evidence of hepatomegaly and she has a temperature of 39. Her LFTs are deranged. What investigation should be performed to confirm adult onset Stills disease?

**1- Ferritin**

2- ANA

3- Rheumatoid factor

4- CRP and ESR

5- Anti-CCP antibodies

Q2135. What investigation should be performed before commencing azathioprine to assess the risk of toxicity?

1- CRP

2- 6-mercaptopurine

3- Monospot Test

**4- Thiopurine S-methyltransferase activity (TPM T) 5- ESR**

Q2136. What feature is most indicative of a diagnosis of tennis elbow?

1- Tender over the medial epicondyle

**2- Pain on chair raise test**

3- Shooting pains radiating down arm

4- Numbness in ulnar nerve distribution

5- Pain on elbow flexion

Q2137. A 30 year old who plays tennis presents with pain in her left elbow. When the wrist is extended against resistance when the elbow is extended the pain is reproduced. What is the most likely diagnosis?

1- Carpal Tunnel Syndrome

2- Brachial plexus injury

3- Osteoarthritis

**4- Lateral epicondylitis**

5- Medial epicondylitis

Q2138. A patient with Rheumatoid Arthritis presents with a macrocytic anaemia. What is the likely cause?

**1- Methotrexate Therapy**

2- Etanercept

3- Hydroxychloroquine

4- Sulphasalazine

5- Splenomegaly

Q2139. A 37 year old female presents with left shoulder pain. She states it is very difficult and painful to move in any direction. On examination there is pain on passive movement. She has a history of Type 1 Diabetes Mellitus. Which of the following is the most likely diagnosis?

1- Pseudogout

2- Osteoarthritis

**3- Adhesive capsulitis**

4- Supraspinatus calcification

5- SLE

Q2140. A 70 year old gentleman undergoes a transfemoral angiogram. After 3 days he is noted to have discolouration of his toes and is found to be in acute renal failure. You suspect this is due to cholesterol embolisation. What is associated with cholesterol embolisation?

1- The patient should be anticoagulated

2- Thrombolysis is recommended

**3- Diabetes mellitus**

4- Most common embolic source is the heart

5- There is no association with increased creatinine

Q2141. What feature would be most useful in the diagnosis of suspected polymyalgia rheumatica?

**1- Good response to steroids**

2- Unresponsive to steroids

3- Distal muscle pain and stiffness

4- ESR normal

5- Weakness alone

Q2142. What is a common feature of rheumatoid arthritis?

**1- Distal symmetrical joint involvement in the hands**

2- Pyrophosphate deposition in the joints

3- Anterior Uveitis

4- Monoarticular joint involvement

5- Myocarditis

Q2143. What disease is most likely to be associated with Ischaemic optic atrophy?

1- Ankylosing Spondylitis

**2- Giant Cell Arteritis**

3- Inflammatory bowel disease

4- Rheumatoid arthritis

5- SLE

Q2144. An 80 year old presents with sudden onset painful, red and swollen knee. There is no history of trauma. How would you investigate this patient?

1- Bloods including inflammatory markers

**2- Diagnostic and therapeutic aspirate of knee**

3- Arthroscopy

4- Blood cultures

5- X-ray of knee

Q2145. What is a common feature of Stills disease?

**1- Rheumatoid factor negative**

2- The incidence is higher in males.

3- Fever is very uncommon

4- Normal Inflammatory markers

5- Most common cause of joint disease in adults

Q2146. A patient with known Rheumatoid Arthritis is found to have a low WCC count. What clinical feature is likely to be present?

1- HLA B27

2- Pyrexial

**3- Splenomegaly**

4- Nil

5- Hepatomegaly

Q2147. A 35 year old female with rheumatoid arthritis presents with pain and tightness behind of the left leg. On examination there is evidence of a swelling in the popliteal fossa of the left knee. What investigation should be organised?

**1- Ultrasound of popliteal fossa**

2- Arthroscopy

3- MRI of knee

4- Routine bloods

5- d-dimers

Q2148. A 20 year old female presents to her GP with what is presumed to be a UTI. Her bloods revealed renal impairment. She gives a history of haemoptysis. She is referred to the renal unit and a renal biopsy is performed and reveals IgG deposition linearly along the glomerular basement membrane. What is the most likely diagnosis?

1- Minimal change disease

**2- Goodpastures syndrome**

3- Membranoproliferative Glomerular Nephritis

4- Wegeners granulomatosis

5- Nephrotic syndrome

Q2149. A 52 year old female presents with joint pains but there is no evidence of active synovitis. She is also extremely lethargic and she also complains of a dry mouth and dry eyes. An autoimmune condition is suspected and bloods reveal positive ANA and anti-Ro antibodies. What is the most likely diagnosis?

1- Systemic Sclerosis

2- SLE

**3- SLE and Sjögrens Syndrome**

4- Sicca Syndrome

5- Rheumatoid arthritis

Q2150. On X-ray what is the earliest feature of rheumatoid arthritis?

1- Subluxation

2- Juxta-articular osteopaenia

**3- Effusion**

4- Loss of joint space

5- Erosive changes

Q2151. When Rheumatoid Arthritis affects the feet, what is the earliest feature?

1- Rheumatoid nodules

2- Hammer toe deformity

**3- MTP swelling**

4- Foot flattening

5- Hallux valgus deformity

# Chapter 14 Statistics

Q2152. To which of the following data types does the variable with possible values "male" or "female" belong?

**1- Nominal data**

2- Ordinal data

3- None of the above

4- Continuous data

5- Discrete data

Q2153. A research team believe that 5 genes can be used to predict the length of time someone will have the common cold for. 500 patients with colds are studied to measure the length of time they had their cold. How should you analyse the results?

1- F test

2- Chi square testing

3- Paired t test

**4- Linear regression**

5- Survival analysis

Q2154. In which type of study does recall bias pose a substantial problem?

1- Randomised double blind control study

2- Crossover study

**3- Retrospective case-controlled study**

4- Meta-analysis

5- Prospective study cohort study

Q2155. In a retrospective case-control study looking at lung disease, the results found that 800 of the cases and 110 of the controls were smokers. 2000 cases and 2000 controls were examined in the study. What is the odds ratio for the development of lung disease in smokers.

1- 0.09

2- 0.13

**3- 11.5**

4- 9

5- 7.2

Q2156. Regarding relative risk, which of the following is true?

1- Describes the chance of a patients family developing a disease

2- When the risk is equal amongst the exposed and unexposed group, the value is 0

3- Can be positive or negative

4- Is calculated by the square root of the mean incidence in the exposed group divided by the mean incidence in the non exposed group

**5- It is the probability of an event occurring in an exposed group relative to a non exposed group**

Q2157. Which of the following bias are meta analysis most susceptible to?

1- Response bias

**2- Publication bias**

3- Methodological bias

4- Volunteer bias

5- Statistical analysis

Q2158. What best describes a type 2 error?

1- False Negative

2- A test rejects a true null hypothesis

3- A test fails to reject a true null hypothesis

**4- A test fails to reject a false null hypothesis.**

5- False positive

Q2159. What provides the best description of a crossover trial?

1- Studies side effects

2- Blind study

**3- Longitudinal study where subjects receive a sequence of all treatments**

4- Longitudinal study where patient receives treatment followed by placebo

5- Longitudinal study where subjects receive a sequence of some treatments

Q2160. What would you expect to find in a negatively skewed distribution?

**1- Mean less than median**

2- Mode equals median

3- Mean and median are the same

4- Mean greater than median

5- Normal distribution

Q2161. What provides the best definition of standard deviation?

1- Spread of data around median value

**2- Spread of data about the mean value**

3- The value which lies in the middle of the data

4- Type 2 error

5- Spread of data around mode value

Q2162. Which of the following is the best description for the p-value?

1- Type 2 error

**2- Type 1 error**

3- 0.05

4- Standard error

5- 0.01

Q2163. A study was conducted to compare four different anti-hypertensive medicines. One outcome of the study was to compare the blood pressure lowering effect between the four medicines. Which of the following analysis would be most appropriate for the data?

1- Students T-test

2- Regression

3- Cox regression

**4- ANOVA**

5- Correlation

Q2164. What does it mean if a persons IQ places them on the 65th centile?

**1- It means that 65% of the population has an IQ which is lower than the individuals**

2- It means that the persons IQ is 65% greater than the population mean

3- It means that the have an IQ of 65

4- It means that 65% of the population has an IQ which is higher than te individuals

5- It means that the persons IQ is 65% lower than the population mean

Q2165. What parameter is likely to be most greatly affected by outliers in the data?

1- Median

2- Mode

**3- Mean**

4- Odd ratio

5- Interquartile range

Q2166. Several samples were randomly taken from a population for a study. Which of the following statements is correct?

1- Multiple samples are required to be taken in order to calculate the standard error of the mean

2- 95% of the sample means will lie within one standard error of the population mean

3- Increasing the sample size will not affect the standard error calculated from the sample

4- The distribution of the sample means is affected by the distribution of the variable in the population

**5- The standard error of the mean is equivalent to the standard deviation of the sample means**

Q2167. A clinical study investigating the LDLc lowering effects of a new therapy compared to rosuvastatin was conducted. The lowering effects of both treatments appeared to follow a normal distribution. What is the most appropriate method of anaylsing this data?

1- Wilcoxon Signed Rank Sum Test

2- Mann-Whitney U-Test

3- Chi-Squared Test

**4- Two Sample T-Test**

5- Paired Sample T-Test

Q2168. With regards to a 95% confidence interval, which of the following is correct?

1- There is a 5% chance of the population mean lying above the upper limit of the interval

**2- The population mean lies within the limits of the interval with 95% confidence**

3- 2.5% of measured values will lie below the lower limit of the interval

4- 95% of the measured values will lie within the limits of the interval

5- 5% of samples means will lie above the upper limit of the interval

Q2169. Hypothesis testing between two sample means produces a p-value of 0.35. Which of the following is the best conclusion that can be drawn from this result?

1- The two sample means tested are the same

2- The two sample means tested are not the same

3- Increasing the sample size would have no affect on the significance level of the results

**4- There is no evidence to suggest any difference between the sample means**

5- The probablility that the sample means are the same is 35%

Q2170. A RCT was conducted to compare the blood pressure lowering effects of two different exercise programmes. Which of the following would be the most appropriate method for summarising the results?

1- A box and whiskers plot displaying the minimum, maximum, median, lower quartile and upper quartile for the reduction in BP for each programme.

2- The p-value for the difference in BP lowering effects between the two programmes

3- The mean and confidence interval for BP reduction for each exercise programme

**4- The mean and confidence interval for BP reduction between the two exercise programmes**

5- The mean and confidence interval for final BP between the two exercise programmes

Q2171. You are asked to design a trial for a new blood pressure medication. Which of the following is important to consider?

1- A cross over study should always be performed for new drugs

2- An open trial would offer the best results

3- Case control studies provide the strongest evidence

**4- The criteria for inclusion and exclusion should not be too so that the results can be reflective of the general population**

5- A participant should agree to only get paid if they complete the trial

Q2172. Which is true of randomised parallel group studies?

1- Differences in results between groups is due to the treatments

**2- Randomisation minimises differences between the treatment groups at the onset**

3- Randomisation ensures that variables between groups are balanced and do not effect outcomes

4- After a treatment has been run in one group, it is stopped and swapped with the treatment from another group.

5- Group sizes should be equal

Q2173. In a case-control study 30 children with seasonal rhinitis were compared to 30 age and sex matched controls. The children were form the same local area. The study compared the differences between the childrens birthweights. Using a paired t-test the cases were found to be 60g lighter with a standard error of 35g. From these results what conclusion can be drawn?

1- Seasonal rhinitis can be caused by a low birthweight

2- The p-value for the test is less than 0.05 and so the null hypothesis can be rejected

3- There is no association between low birthweight and the development of seasonal rhinitis

4- The design of the study is unsuitable

**5- The evidence is insufficient to conclude that birthweight affects the development of seasonal rhinitis**

Q2174. A study was conducted to examine if there is an association between perceived level of care received (poor, satifactory or goo d) during hospital stay and sex. Which method of analysis is the most appropriate?

**1- Chi-squared test for trend**

2- Wilcoxon signed rank sum test

3- Chi-squared test of association

4- Survival analysis

5- Relative risk

Q2175. A double blinded randomised control trial was constructed and the two treatment groups were found to have major differences in the ratio of male to females. What should be done to improve the study?

1- Restart the trial with only the sex most affected by the condition

2- New participants should be brought in to equalise the ratio

3- Restart the trial without randomisation

**4- The results should be analysed with this in mind to see if it effects the trial conclusions**

5- No changes needed

Q2176. The end point for a double blinded random control trial comparing treatments to prevent myocardial infarction was death. Which of the following is true?

**1- A data monitoring committee should monitor patient safety and treatment data while the trial is running**

2- If a severe side effect occurs frequently then these patients should be excluded from the trial

3- Only the lead investigator should know details of the treatment groups during the trial

4- Patients that do not survive a minimum time period should be excluded

5- Only the participants should know details of which treatment they are on

Q2177. A group of 100 subjects ages are normally distributed with a mean of 41 years and a standard deviation of 4 years. Select the true statement

**1- 16 subjects will be below 37 years of age**

2- 75 members of the study will be aged 37 and 45

3- 50 of the subjects will be between 39 and 43 years of age

4- 50% of the cohort will be between the age 37 and 45

5- At least 5 subjects will be older than 49

Q2178. A trial is undertaken comparing the use of banding plus sclerotherapy versus banding plus a placebo injection for oesophageal varices. 21 from 183 procedures were unsuccessful with sclerotherapy compared to 28 from 163 procedures. What type of statistical analysis should be carried out?

1- Unpaired t test

2- Students t test

3- Factorial analysis

**4- Chi square test**

5- Paired t test

Q2179. Which of the following correctly defines what the power of a statistical test means?

1- The specificity of a test

**2- The power of a statistical test is the probability that the test will reject the null hypothesis when the null hypothesis is false.**

3- The strength of relationship between two variables in a population

4- The likelihood of a significant result occurring

5- The estimate of a value or outcome based on a smaller sample

Q2180. You are told that a study has a R value of -0.11 and a p value of 0.09. Select the true statement from the following

1- A positive r value signifies a negative association

2- A positive R value means that there is no association

**3- The p value suggests that the result is not significant**

4- R stands for covariance

5- A negative R value signifies a positive association

Q2181. Which is true of confidence intervals?

1- A 95% confidence interval means that the investigator is 95% sure that the outcome is correct

2- They provide a measure of the statistical difference between two groups

3- Confidence intervals describe the range of values around a median

4- A confidence interval describes the significance of the result

**5- A 95% confidence interval means that there is a 95% chance that lies within the values shown**

Q2182. which of the statements is false?

**1- A high p value signifies a stronger result**

2- The null hypothesis declares that there is no link between two variables.

3- Descriptive statistics summarise a data set to provide values such as the mean or median

4- The median is a value separating the higher and lower half of a sample

5- Correlation refers to a relationship between variables

Q2183. What is true regarding a studies sample?

1- A random sample means that some members of a studies population have a 0% chance of being within the sample

2- A population variable is an estimate of a sample statistic from a population subsample

3- The mode is the middle value in a ordered sample

4- A population sample must never have limiting criteria for selection

**5- A sample statistic is an estimate of a population variable from a population subsample**

Q2184. Which of the following is true?

1- The p value is the probability that running the experiment again will produce the same results

**2- The p value is the chance of obtaining the observed results if the null hypothesis is true.**

3- The p value is the probability that the null hypothesis is true

4- A p value is only significant if less than 0.05

5- The p value is the probability that the observed result was an unrepresentative value

Q2185. What is the standard deviation of a population?

1- The length of the smallest interval that contains all of the data

**2- The square root of the variance**

3- The square root of the sample median

4- The square root of the sample mean

5- The average of a population when calculated from multiple subsamples

Q2186. A researcher believes that night shift work raises stomach cancer incidence. Which study would be the most suitable to look into this relationship?

1- Randomised cross over trial

**2- Retrospective case control study**

3- Randomised control trial

4- Prospective cohort study

5- Observational study

Q2187. A study measures the waist size of two populations and uses an unpaired t test to analyse the outcomes. The difference in means is 3.2cm with a 95% confidence interval from -1.6 to 5.9cm. If the true means are 82 and 86.9cm then which of the following is true?

1- There is a 5% chance that there is no difference in mean size

2- This is a Type 1 error

3- 5% of waist sizes are 92.8cm or above

**4- This is a Type 2 error**

5- This is a Type 3 error

Q2188. An angina drug with a half life of 3 hours has been found safe in initial test studies on healthy volunteers and a small trial of patients. What trial should be used next?

1- Prospective cohort study

2- Double blind parallel group randomised control trial

3- Open label cross over study

4- Cross sectional study

**5- Double blind crossover randomised control trial**

Q2189. You measure a group of patients blood pressure before an operation then afterwards. What test would you use to prove that the operation results in a change of blood pressure?

**1- Paired samples t test**

2- Independent samples t test

3- Linear regression

4- Chi squared test

5- Mann Whitney U test

Q2190. You measure the heights of a normally distributed population sample and find the average height to be 170cm with a variance of 25. Select the true statement

1- The difference in height between the tallest and shortest participant was 25cm

2- The shortest height measured was 145cm and the tallest was 195cm

3- 50% of the sample is below 170cm height

4- 99% of the sample are between 160cm and 180cm

**5- 95% of the sample are between 160cm and 180cm**

Q2191. A trial is performed to study the effect of fish oil on post operative infection rates. The relative risk of infection compared to those on placebo is 0.8 with a 95% confidence interval of 0.6 to 1. Which of the following is true?

1- The standard deviation was 0.2

2- Fish oil undoubtedly reduces infection rates

3- There was an 80% decrease in infections

4- 80% of patients didnt have an infection

**5- There was no statistically significant difference in infection rate when fish oil was used**

Q2192. A study was performed measuring the weights of 500 patients. The mean weight was 90kg, the standard deviation was 23kg and the median weight was 70kg. Select the true statement.

1- 95% of patients weigh between 44kg and 136kg

2- The largest patient weight 113kg

3- The distribution is negatively skewed

4- Half of all patients weigh 90kg or less

**5- The distribution is positively skewed**

Q2193. You are asked to analyse the results of a studying which compares respiratory rate to a self reported mood scale which goes from 1 to 5. What test would you use to see if there is an association?

1- Scatter plot

2- Analysis of variance

3- Paired t test

4- Pearson product moment correlation

**5- Spearmans rank correlation coefficient**

Q2194. You carry out a study looking at the impact of increasing awareness of the indications of an investigation that is often needlessly over ordered. A random sample of patient notes before the teaching is selected as well as a random sample afterwards. The notes are checked to look for evidence of needless investigation. The analysis uses a Chi squared test and the result is 2.668, p =0.04. What does p =0.04 signify?

**1- If there was no difference in unnecessary investigation rate then the chance of this result occurring is 4%**

2- There was a fall of 4% in unnecessary investigations

3- There is a 0.04 chance that the null hypothesis is true

4- The mean unnecessary investigation rate was 4%

5- The probability that the result is due to chance is 4%

Q2195. A prostate cancer medication has been found to increase quality adjusted life years (QAL Y) by 1.9 QALYs compared to the current standard treatment at a cost of £50000 per QALY. Which of the following is true?

1- Spending £50000 will extend a patients life by 1.9 years

2- Spending £95000 will extend a patients life by 1.9 years

**3- Spending £50000 will improve the average patients outcome by one QALY**

4- Spending £25000 will extend a patients life by 0.85 years

5- It is only cost effective if the patient chooses to pay

Q2196. The length of time a patient stays in hospital post surgery is measured in a hospital ward. The results have a median of 3 days, are negatively skewed and the interquartile range is 2 to 6 days. Select the true statement

1- 99% of patients stay between 2 and 6 days

2- The mean is less than 3

**3- 50% of patients stay between 2 and 6 days**

4- 25% of patients stay between 2 and 6 days

5- 95% of patients stay between 2 and 6 days

Q2197. You perform an audit looking at the length of hospital stay and the respiratory rate at admission of asthmatic patients. You analyse the results and produce a product moment correlation coefficient R =0.66 with a 95% confidence interval of 0.60 and 0.73. Which of the following is true?

1- A low respiratory rate at admission leads to a longer stay

2- We can be 95% certain that respiratory rate affects stay length

3- Respiratory rate at admission has very little effect on hospital stay

**4- Respiratory rate at admission is positively associated with length of stay**

5- The association is not significant

Q2198. You are asked to study the effect of a new drug compared to the current best treatment on two patient samples. Which test would determine that the mean result is different in both groups?

1- Pearson product moment correlation

2- Paired t test

3- Mann Whitney U test

**4- Unpaired t test**

5- Spearmans rank correlation coefficient

Q2199. A study is being planned to investigate any link between environmental exposure to pesticides and new cases of cancer. Which would provide the best evidence?

1- Observational study

2- Randomised cross over trial

3- Randomised control trial

4- Prospective cohort study

**5- Retrospective case control study**

Q2200. A trial is undertaken comparing the use of banding plus sclerotherapy versus banding plus a placebo injection for oesophageal varices. 21 from 183 procedures were unsuccessful with sclerotherapy compared to 28 from 163 procedures. What type of statistical analysis should be carried out?

1- Factorial analysis

2- Unpaired t test

3- Students t test

**4- Chi square test**

5- Paired t test

Q2201. The standard deviation of a sample means estimate of a populations mean is best described as:

1- Confidence Intervals

2- None of the options

3- Sampling Distribution

**4- Standard Error of Mean**

5- Standard Deviation

Q2202. Which of the following is false regarding the negative predictive value?

1- Affected by the prevalence rate

2- Affected by the specificity of a test

3- All are false

4- It the probability that an individual does not have the disease given a negative test result

**5- It the probability that an individual will have a negative test result when they do not have the disease**

Q2203. What provides the best definition of standard deviation?

1- The value which lies in the middle of the data

**2- Spread of data about the mean value**

3- Spread of data around median value

4- Type 2 error

5- Spread of data around the mode value.

Q2204. hich of the following is the best description for the p-value?

1- Standard error

**2- Type 1 error**

3- 0.05

4- Type 2 error

5- 0.01

Q2205. A group of 100 subjects ages are normally distributed with a mean of 41 years and a standard deviation of 4 years. Select the true statement

**1- 16 subjects will be below 37 years of age**

2- 50 of the subjects will be between 39 and 43 years of age

3- 50% of the cohort will be between the age 37 and 45

4- At least 5 subjects will be older than 49

5- 75 members of the study will be aged 37 and 45

Q2206. The 5 year mortality of a disease is 50%. A new treatment is developed and the relative risk for patients on this treatment is 0.9. How many patients need to use the treatment for one life to be saved?

1- 5

2- 40

3- 45

4- 100

**5- 20**

Q2207. Which of the following formulae defines the positive predictive value?

**1- (Number of True Positive s) /((Number of True Positive s) +(Number of False Positive s) )**

2- (Number of True Positive s) /((Number of True Negative s) +(Number of False Positive s) )

3- (Number of True Negative s) /((Number of True Negative s) +(Number of False Positive s) )

4- (Number of True Positive s) /((Number of True Positive s) +(Number of False Negative s) )

5- (Number of True Negative s) /((Number of True Negative s) +(Number of False Negative s) )

Q2208. What is meant by intention to treat in randomised controlled trials?

1- Analysis of data from subjects randomised to the control group

2- Analysis from data from randomised subjects remaining at end

3- Analysis of data from subjects randomised to the treatment group

**4- Analysis of data from all randomised subjects**

5- None of the options

# Chapter 15 Tropical medicine

Q2209. In a patient who is aged over 50 or under 3 months of age, what is an appropriate addition to ceftriaxone for the empirical management of meningitis?

**1- Amoxicillin 2g 6 hourly**

2- Rifampicin

3- Vancomycin

4- Gentamicin

5- Amoxicillin 1g 8 hourly

Q2210. A 19 year old male presents with dysuria and a mucopurulent discharge from his urethra. The causative agent is a gram negative intracellular diplococci. What is the most likely diagnosis?

1- Syphilis

2- Human papilloma virus

3- Herpes simplex virus

4- Chlamydia

**5- Gonorrhoea**

Q2211. An 18 year old male who has just started university presents with a sore throat, malaise and fever. On examination there is tonsillar enlargement which are exudative and petechiae on his palate. There is evidence of cervical lymphadenopathy and hepatomegaly. Bloods reveal an elevated ESR and deranged LFTs. What is the most likely diagnosis?

1- Viral Pharyngitis

2- HIV Seroconversion

**3- Infectious Mononucleosis**

4- Viral Hepatitis

5- Group A Streptococcal Pharyngitis

Q2212. A patient with HIV presents after noticing several lesions on his legs and his mouth. The lesions are nodular and are brown in colour. Given the most likely diagnosis, what is the causative agent?

1- Human herpes virus 1

2- Human papilloma virus 6

3- Human papilloma virus 16

**4- Human herpes virus 8**

5- HTLV 4

Q2213. What is the likely causative organism of meningitis if a lumbar puncture reveals predominantly mononuclear cells however a markedly elevated protein and low glucose?

1- Enterovirus 2- M. Tuberculosis 3- N. Meningitidis

4- Herpes simplex virus

5- EBV

Q2214. A 36 year old gentleman presents with fatigue, weight loss, abdominal discomfort, nausea and change in bowel habit. On examination there is a right iliac fossa mass. A colonoscopy is organised and a biopsy taken which reveals gram positive filamentous rods and sulphur granules. What is the most likely diagnosis?

1- Colorectal Cancer

**2- Actinomycosis**

3- Crohn's Disease

4- Giardiasis

5- Appendicitis

Q2215. A patient with HIV presents with a sudden onset of confusion. CMV encephalitis is suspected. What treatment should be commenced?

1- Dexamethasone

2- Aciclovir

3- Ceftriaxone

4- Nil required

**5- Ganciclovir**

Q2216. A 25 year old female presents with a malodourous vaginal discharge. It is greenish in colour and is frothy. She also reports that her vulva and vagina are itchy and sore. What is the most likely diagnosis?

1- Gonorrhoea

**2- Trichomoniasis**

3- Candidiasis

4- Chlamydia

5- Bacterial Vaginosis

Q2217. Superinfection with which of the following may lead to an acute hepatitis in a patient with existing hepatitis B?

1- Hepatitis A

2- Hepatitis E

**3- Hepatitis D**

4- Hepatitis G

5- Hepatitis C

Q2218. Which of the following is a live vaccine?

1- Salk polio vaccination

2- Cholera vaccination

3- Pertussis vaccination

4- Hepatitis vaccination

**5- Yellow fever vaccination**

Q2219. A 75 year old woman, with dementia and poor mobility, from a nursing home is found to have gonorrhoea. How should this be managed?

**1- Discuss with senior and likely police involvement**

2- Contact nursing home

3- IM ceftriaxone

4- Nil

5- Investigate for chlamydia

Q2220. A patient is being treated with IV vancomycin and gentamicin for prosthetic valve infective endocarditis. He is not improving and MRSA is suspected. Which of the following is a reasonable addition to the current management?

1- Ciprofloxacin

**2- Rifampicin**

3- Fluconazole

4- Flucloxacillin

5- Doxycycline

Q2221. A 24 year old has recently returned from back packing around Asia. He now presents with a one month history of diarrhoea, flatulence, bloating and abdominal cramps. This has been associated with malaise and weight loss. Stool samples are sent and cysts are identified. What is the most likely diagnosis?

1- Amoebiasis

2- Coeliac disease

**3- Giardiasis**

4- Cholera

5- Inflammatory bowel disease

Q2222. A 35 year old female presents with mild fever and malaise. On examination there is evidence of right axillary lymphadenopathy and there is evidence of an excoriation and red crusted papule. She states her new kitten scratched her. What is the most likely diagnosis?

**1- Bartonella henselae infection**

2- Borrelia burgdorferi infection

3- Hodgkin's lymphoma

4- Toxoplasma gondii infection

5- Infectious mononucleosis

Q2223. A 35 year old gentleman with AIDs presents with confusion and altered mental status. A CT head is performed. Which of following is more suggestive of toxoplasmosis rather than cryptococcosis as the underlying cause?

1- Solitary non enhancing lesion

**2- Multiple ring enhancing lesions**

3- Hydrocephalus

4- Diffuse atrophy

5- Solitary ring enhancing lesion

Q2224. A 35 year old gentleman with HIV presents with one week's history of profuse watery, non bloody diarrhoea, approximately ten to twenty episodes per day. This is associated with abdominal cramps and a mild pyrexia. Modified acid fast staining of stools reveal red stained oocysts. Which of the following is the most likely causative agent?

**1- Cryptosporidium Parvum**

2- Entaemoeba Histolytica

3- Shigella Dysenteriae

4- Giardia Intestinalis

5- Cytomegalovirus

Q2225. A 68 year old male who is on long term steroids for polymyalgia rheumatica presents with a dry cough, shortness of breath and pyrexia. His saturations are 96%. There is very little to hear on auscultation of the chest with no crackles. Over his trunk there is evidence of vesicles and pustules. His grandson has chickenpox. A chest X-ray is normal. Which of the following should be commenced?

1- Oral aciclovir

**2- IV aciclovir**

3- Nil specific required

4- IV co-amoxiclav

5- Hyperimmunoglobulin

Q2226. A 29 year old female who is an IV drug user presents with pyrexia, myalgia and malaise. She is also complaining of joint pains in her fingers and knees. There is evidence of an urticarial rash. Approximately 2 months previously she admits to have shared a needle. She does admit to drinking excessively at times but has not had any alcohol for over a month. On examination there was evidence of RUQ tenderness and she appears slightly jaundice. Bloods reveal greatly elevated aminotransfreases. ALP, gamma GT and bilirubin are also elevated but to a lesser degree. What is the most likely diagnosis?

1- HIV Seroconversion

2- Acute Hepatitis C Infection

**3- Acute Hepatitis B Infection**

4- Acute Hepatitis secondary to alcohol

5- Acute Hepatitis A Infection

Q2227. A 28 year old female who is 18 weeks pregnancy presents as she is worried that she has come into contact with chicken pox. She thinks she may have had it as a child but is not sure. Which of the following is the next appropriate step?

**1- Serum varciella zoster antibody titre**

2- Varicella zoster immunoglobulin

3- Nil required

4- Oral aciclovir

5- IV aciclovir

Q2228. A 67 year old female has a right knee replacement for osteoarthritis. Over the last month she has noticed increasing pain of his knee with some swelling and difficulty moving the knee. On examination he has a mild pyrexia and there is slight swelling and warmth to the knee. Bloods reveal a slightly increased WCC and CRP. A joint aspirate is performed and reveals gram positive bacilli. Which of the following is the most likely causative agent?

1- Staphylcoccus Aureus

2- Haemophilus Influenzae

3- Neisseria Gonorrhoeae

**4- Propionibacterium acnes**

5- Streptococcus Pneumoniae

Q2229. A 38 year old male who is a keen hill walker presents to his GP with a flu like illness. He is complaining of joint pains and myalgia. On examination you notice a circular lesion on his leg. There is an annular raised erythematous area. Which of the following is the most likely causative agent?

**1- Borrelia burgdorferi**

2- Rickettsia rickettsii

3- Parvovirus B19

4- Babesia

5- Meningococcus

Q2230. A patient with HIV presents with fever, malaise, dyspneoa, diarrhoea, generalised lynphadenopathy and significant weight loss. His CD4 count is 20. There is evidence of tender hepatosplenomegaly. What is the most likely causative agent?

1- Cryptococcus

2- Histoplasmosis

3- Toxoplasmosis

**4- Mycobacterium avium complex**

5- Cryptosporiosis

Q2231. A 37 year old male with HIV is brought to A+E confused. He is accompanied by his partner who states he has been complaining of a headache for a couple of weeks and has vomited. He has a mild pyrexia and mild neck stiffness. A CT does not reveal any specific findings. Which of the following is the most likely diagnosis?

1- Cytomegalovirus

**2- Cryptococcosis**

3- Mycobacterium Avium Complex

4- Cryposporiosis

5- Toxoplasmosis

Q2232. A 37 year old male with HIV is brought to A+E confused. He is accompanied by his partner who states he has been complaining of a headache for a couple of weeks and has vomited. He has a mild pyrexia and mild neck stiffness. A CT does not reveal any specific findings. Given the most likely diagnosis, which treatment should be commenced initially?

**1- Amphotericin B**

2- Ganciclovir

3- Aciclovir

4- Flucytosine

5- Fluconazole

Q2233. A 44 year old male who has recently been milking goats, presents with fever, malaise and myalgia. On examination there is spinal tenderness and lymphadenopathy. Her white cell count reveals neutropenia. A rose Bengal test is positive. What is the most likely diagnosis?

1- Potts disease

2- Extrinsic allergic alveolitis

3- Influenzae

**4- Brucellosis**

5- Infective Endocarditis

Q2234. A 44 year old male who has recently been milking goats, presents with fever, malaise and myalgia. On examination there is spinal tenderness and lymphadenopathy. Her white cell count reveals neutropenia. A rose Bengal test is positive. What treatment should be commenced?

1- Doxycycline

2- Rifampicin, isoniazid and ethambutol

**3- Doxycycline and Rifampicin**

4- Rifampicin

5- Gentamicin

Q2235. What is the most common organism to lead to watery diarrhoea, nausea and abdominal cramps in a patient with HIV?

1- Giardia

2- Shigella

**3- Cryptosporidium**

4- Microsporidia

5- Salmonella

Q2236. A 72 year old female has been in hospital for one week following a knee replacement. She is now very unwell with a productive cough. On examination she is confused and there is left basal crackles with dullness to percussion. Her RR is 32. There is left lower lobe consolidation. Which of the following is the most appropriate antibiotic regime?

1- Amoxicillin and Metronidazole

2- Doxycycline

**3- IV Co-amoxiclav, Gentamicin and Clarithromycin**

4- IV Co-amoxiclav and Clarithromycin

5- IV Vancomycin and Gentamicin

Q2237. A 6 year old is brought to her GP. She has been unwell for the previous few days with mild fever, malaise, headache, myalgia, arthralgia and rhinorrhoea. She then developed an erythematous macular rash on her cheeks with circumoral pallor. What is the most likely causative agent?

1- Streptococcus

2- Rubella

**3- Parvovirus B19**

4- Measles

5- Mumps

Q2238. A 42 year old male who is being treated for lung cancer with chemotherapy has required a blood transfusion for symptomatic relief. He then then becomes unwell with fever, sore throat, fatigue and jaundice with lymphadenopathy. He is not neutropenic however is commenced on empirical antibiotic treatment for sepsis of unknown origin, however is not responding. What is the most likely causative organism?

1- Toxoplasmosis

2- EBV

3- Tuberculosis

4- MRSA

**5- CMV**

Q2239. A 19 year old student returns from a back packing trip around Asia. He is brought to A and E very unwell. He has a fever of 41 degrees. This came on suddenly along with severe headaches, localised retroorbitally and severe myalgia and backache. A macular confluent rash appeared a few days into his admission, over his face and flexor surfaces. His conjuctivae are red. He is also complaining of abdominal pain and bleeding gums. What is the most likely diagnosis?

**1- Dengue fever**

2- Malaria

3- Ebola virus

4- Typhoid fever

5- Yellow fever

Q2240. A patient with hepatitis B is found to have anti Hbc, HbsAg, HbeAg and HBV DNA on PCR. She is found to have deranged LFTs. She is being considered for treatment. Which of the following is not a common side effect of interferon?

**1- Haemolytic anaemia**

2- Weight loss

3- Depression

4- Flu like illness post injection

5- Thrombocytopenia

Q2241. A 25 year old female has just returned from travelling around South America. She presents with a 3 day history of malaise. And myalgia This was followed by a severe headache and fever which came on suddenly. She has a dry cough and is complaining of abdominal pain. She has noticed a rash on her abdomen and axillae and this is starting to spread peripherally. On examination there is a non confluent erythematous rash on the abdomen and axillae. What is the most likely causative agent?

**1- Rickettsia prowazekki**

2- Plasmodium falciparum

3- Rickettsia rickettsii

4- Salmonella Typhi

5- Rickettsia typhi

Q2242. A 25 year old female has just returned from travelling around South America. She presents with a 3 day history of malaise and myalgia. This was followed by a severe headache and fever which came on suddenly. She has a dry cough and is complaining of abdominal pain. She has noticed a rash on her abdomen and axillae and this is starting to spread peripherally. On examination there is a non confluent erythematous rash on the abdomen and axillae. Given the most likely diagnosis, how might this be confirmed?

1- Ziehl Nielsen staining

**2- Serology**

3- Thick and Thin Blood films

4- CRP

5- Blood Cultures

Q2243. A 25 year old female has just returned from travelling around South America. She presents with a 3 day history of malaise and myalgia. This was followed by a severe headache and fever which came on suddenly. She has a dry cough and is complaining of abdominal pain. She has noticed a rash on her abdomen and axillae and this is starting to spread peripherally. On examination there is a non confluent erythematous rash on the abdomen and axillae. What treatment should be commenced?

1- Chloroquine

2- Quinine

3- Amoxicillin

4- Fluoroquinolone

**5- Doxycycline**

Q2244. A 19 year old back packer returns from central America. She presents with a one week history of severe headache, fever, myalgia and a rash. The rash is a maculopapular rash which began on her wrists and ankles and has gradually spread to the trunk. In some areas there is evidence of petechiae. She remembers being bitten by a tick whilst on holiday. What is the most likely diagnosis?

1- Endemic Typhus

2- Scrub Typhus

3- Epidemic Typhus

**4- Rocky Mountain Spotty Fever**

5- Measles

Q2245. A 19 year old back packer returns from central America. She presents with a one week history of severe headache, fever, myalgia and a rash. The rash is a maculopapular rash which began on her wrists and ankles and has gradually spread to the trunk. In some areas there is evidence of petechiae. She remembers being bitten by a tick whilst on holiday. What is the most likely causative agent?

**1- Rickettsia rickettsii**

2- Rickettsia typhi

3- Rickettsia prowazekki

4- Plasmodium falciparum

5- Salmonella Typhi

Q2246. A 22 year old student has just returned from south America. He presents with pyrexia, jaundice, abdominal pain and vomiting. He has noticed bleeding from his nose and gums. This was preceded by a flu like illness with headache, fever and myalgia especially back pain. He thought he was recovering and then the other symptoms began. What is the most likely diagnosis?

**1- Yellow Fever**

2- Dengue Fever

3- Ebola Virus

4- Malaria

5- Typhoid Fever

Q2247. A 27 year old male has just returned from the Congo. He develops a severe headache, myalgia, fever, diarrhoea and vomiting. There is evidence of conjunctivitis and pharyngitis and he is bleeding from his nose and gums. He also has a maculopapular rash. What is the most likely diagnosis?

1- Yellow Fever

2- Typhoid Fever

**3- Ebola Virus**

4- Malaria

5- Dengue Fever

Q2248. A 12 year old is brought to his GP. He has been unwell for the last few days with a fever, coryza, diarrhoea and a dry cough. On examination there is evidence of small red spots with a white speck in the centre opposite the second molar on the buccal mucosa. There is also evidence of an erythematous rash on the forehead and neck. Given the most likely diagnosis, what would contribute to the development of blindness as a complication?

1- Cataracts

2- Vitamin E deficiency

3- Vitamin B12 deficiency

**4- Vitamin A Deficiency**

5- Vitamin B1 deficiency

Q2249. A 12 year old is brought to his GP. He has been unwell for the last few days with a fever, coryza, diarrhoea and a dry cough. On examination there is evidence of small red spots with a white speck in the centre opposite the second molar on the buccal mucosa. There is also evidence of an erythematous rash on the forehead and neck. Given the most likely diagnosis, from which of the following neurological complications can a patient develop if they are immunocompromised?

1- Subacute sclerosing panencephalitis

2- Acute demyelinating encephalitis

3- Mononeuritis multiplex

**4- Measles inclusion body encephalitis**

5- Stroke

Q2250. A 12 year old is brought to his GP. He has been unwell for the last few days with a fever, coryza, diarrhoea and a dry cough. On examination there is evidence of small red spots with a white speck in the centre opposite the second molar on the buccal mucosa. There is also evidence of an erythematous rash on the forehead and neck. Given the most likely diagnosis, from which of the following is the most common neurological sequelae?

1- Measles inclusion body encephalitis

2- Mononeuritis multiplex

3- Stroke

4- Subacute sclerosing panencephalitis

**5- Acute demyelinating encephalitis**

Q2251. A 25 year old male presents to his GP following a recent trip to Egypt. Whilst on holiday he remembers suffering from an itchy rash. Now he presents with dysuria, urinary frequency and haematuria which he notices particularly at the end of stream. What is the most likely causative agent?

1- Schistosoma japonicum

2- Schistosoma mekongi

3- Schistosoma intercalatum

4- Schistosoma mansoni

**5- Schistosoma haematobium**

Q2252. A 25 year old male presents to his GP following a recent trip to Brazil. Whilst on holiday he remembers suffering from an itchy rash. Now he presents with bloody diarrhoea, abdominal pain, right upper quadrant discomfort and fatigue. On examination there is hepatosplenomegaly. What is the most likely causative agent?

1- Schistosoma intercalatum

**2- Schistosoma mansoni**

3- Schistosoma mekongi

4- Schistosoma haematobium

5- Schistosoma japonicum

Q2253. A 25 year old male presents to his GP following a recent trip to Egypt. Whilst on holiday he remembers suffering from an itchy rash. Now he present s with dysuria, urinary frequency and haematuria which he notices particularly at the end of stream. What investigation is most useful for the diagnosis?

1- Serology

2- Stool sample for eggs

3- Eosinophil count

4- Urinary test for eggs between 6 am and 10am

**5- Urinary test for eggs between 10 am and 2pm**

Q2254. A 25 year old male presents to his GP following a recent trip to Egypt. Whilst on holiday he remembers suffering from an itchy rash. Now he present s with dysuria, urinary frequency and haematuria which he notices particularly at the end of stream. Given the most likely diagnosis, what treatment should be commenced?

1- Trimethoprim

2- Amoxicillin

3- Quinine

**4- Praziquantel**

5- Chloroquine

Q2255. Which of the following is most likely to be found in China?

**1- Schistosoma japonicum**

2- Schistosoma intercalatum

3- Schistosoma mekongi

4- Schistosoma haematobium

5- Schistosoma mansoni

Q2256. A 27 year old doctor had a needle stick injury from a patient who was hepatitis B positive. He now presents for his 4 months blood check. He is anti HBs positive, anti HBc and anti HBe negative. What advice should be given?

1- Avoid clinical work and repeat bloods at 6 months

2- Commence antiviral therapy

**3- Continue to work as normal**

4- Permanently avoid clinical work

5- Continue to work as normal and repeat bloods at 1 year

Q2257. A patient with HIV presents with fever, malaise, dyspnoea, diarrhoea, generalised lymphadenopathy and significant weight loss. His CD4 count is 20. There is evidence of tender hepatosplenomegaly. What is the most likely causative agent?

1- Histoplasmosis

2- Cryptosporiosis

**3- Mycobacterium avium complex**

4- Cryptococcus

5- Toxoplasmosis

Q2258. A patient with HIV presents with fever, malaise, dyspnoea, diarrhoea, generalised lymphadenopathy and significant weight loss. His CD4 count is 20. There is evidence of tender hepatosplenomegaly. Given the most likely causative agent what antibiotic therapy should be commenced?

1- Nitazoxanide

2- Amphotericin B

3- Ganciclovir

4- Pyrimethamine and sulfadizine

**5- Clarithromycin, ethambutol and rifabutin**

Q2259. Given the most common organism to lead to watery diarrhoea, nausea and abdominal cramps in a patient with HIV, what treatment is most useful?

1- Azithromycin

2- Metronidazole

3- Ciprofloxacin

**4- Nitazoxanide**

5- Clarithromycin

Q2260. A 33 year old gentleman who has recently immigrated from Brazil attends his GP. For some time he has noticed an enlarging white patch on his neck. On examination there is a large macular white lesion which is well demarcated on his neck which has reduced sensation and there is evidenced of a thickened auricular nerve. Which of the following is the most likely diagnosis?

1- Diabetes Mellitus

**2- Tuberculoid Leprosy**

3- Lepromatous Leprosy

4- Vitiligo

5- Leishmaniasis

Q2261. A 27 year old female has just returned from fruit picking in California. She presents with fever, cough, malaise and a rash on her lower legs. On examination there is evidence of left basal crepitations and there is tender bruise like lesions on her shins. Bloods reveal a normal WCC, eosinophilia and elevated ESR. A CXR reveals a localised infiltration and hilar lymphadenopathy. Which of the following is the most likely diagnosis?

1- Viral Pneumonia

2- Aspergillosis

3- Blastomycosis

**4- Coccidioidomycosis**

5- Histoplasmosis

Q2262. A 50 year old man presents with joint pain affecting his knee and wrist. He has been feeling generally unwell. On examination there is evidence of a target shaped rash on his shin and there is generalised lymphadenopathy. The patient is penicillin allergic. Given the most likely diagnosis which treatment should be commenced?

**1- Doxycycline**

2- Cefotaxime

3- Amoxicillin

4- Azithromycin

5- Clarithromycin

Q2263. A 27 year old male attends an STD clinic. He is asymptomatic however is found to have syphilis. Which of the following should be used for treatment?

**1- Benzathine penicillin**

2- Azithromycin

3- Procaine penicillin

4- Doxycycline

5- Cefotaxime

Q2264. A patient with hepatitis B is found to have anti Hbc, HbsAg and anti Hbe. What does this indicate?

1- Previous exposure to hep B but this has cleared

2- Previous immunisation

3- Acute infection

**4- Chronic hepatitis B infection with low infectivity**

5- Chronic hepatitis B infection with high infectivity

Q2265. A patient with hepatitis B is found to have anti Hbc, HbsAg, HbeAg and HBV DNA on PCR. She is found to have deranged LFTs. She is being considered for treatment. In which of the following circumstances would interferon not be contraindicated?

**1- HIV**

2- Pregnancy

3- Decompensated liver disease

4- Ascites

5- Severe depression

Q2266. A patient with hepatitis B is found to have anti Hbc, HbsAg, HbeAg and HBV DNA on PCR. She is found to have deranged LFTs. What does this indicate?

1- Previous immunisation

2- Previous exposure to hep B but this has cleared

**3- Chronic hepatitis B infection with high infectivity**

4- Chronic hepatitis B infection with low infectivity

5- Acute infection

Q2267. A person is back packing around South East Asia and wishes malaria prophylaxis. She is very fair skinned and suffers from epilepsy. Which anti malarial would you recommend?

1- Chloroquine

2- Doxycycline

**3- Atovaquone and Proguanil**

4- Mefloquine

5- Proguanil

Q2268. A 33 year old male with HIV presents unwell. He has a cough productive of green sputum, is short of breath and is pyrexial. He is noticed to desaturate on minimal exertion. On examination there is a few crackles bibasally. A chest X ray reveal perihilar bilateral diffuse infiltrates. Which of the following should be utilised for prophylaxis to prevent the development of this infection?

1- Amoxicillin

2- Cefalexin

3- Erythromycin

4- Doxycycline

**5- Co-trimoxazole**

Q2269. A patient with HIV presents confusion, a seventh nerve palsy and seizures. He is pyrexial and on fundoscopy there is evidence of multiple yellow white patches. A CT of the head reveals multiple bilateral cerebral lesions which are ring enhancing. Given the most likely diagnosis, what treatment should be initiated?

**1- Pyrimethamine and sulfadiazine**

2- Rifampicin, Isoniazid and Ethambutol

3- Corticosteroids

4- Ganciclovir

5- Fluconazole

Q2270. A 45 year old male with AIDS presents with a 2 week history of confusion and lethargy. His MMSE is 20/30. A CT shows atrophy and MRI reveals diffuse white matter hyperintensity. Which of the following is the most likely diagnosis?

1- AIDS Dementia Complex

2- Toxoplasmosis

**3- CMV Encephalitis**

4- Cryptococcosis

5- Progressive Multifocal Leukoencephalopathy

Q2271. A 42 year old male who is being treated for lung cancer with chemotherapy has required a blood transfusion for symptomatic relief. He then then becomes unwell with fever, sore throat, fatigue and jaundice with lymphadenopathy. He is not neutropenic however is commenced on empirical antibiotic treatment for sepsis of unknown origin, however is not responding. What treatment should be initiated?

1- Rifampicin

2- Meropenem

3- Aciclovir

4- Fluconazole

**5- Ganciclovir**

Q2272. A 26 year old patient is brought to A and E very unwell with headache, neck stiffness, photophobia and fever. A lumbar puncture is performed and reveals a glucose of more than half of serum, a protein of 0.6 g/L and predominantly mononuclear cells. What is the most likely diagnosis?

1- Migraine

2- Tuberculosis Meningitis

**3- Viral Meningitis**

4- Subarachnoid Haemorrhage

5- Bacterial Meningitis

Q2273. When is varicella zoster no longer infective?

**1- When lesions have crusted and fall off**

2- When lesions stop appearing

3- After prodrome ends

4- When spots first appear

5- After 2 weeks after first spot appears

Q2274. Which of the following is not associated with causing a false positive monospot result?

**1- Age < 2**

2- Rheumatoid arthritis

3- Toxoplasmosis

4- Burkitts lymphoma

5- CMV

Q2275. A patient with hepatitis B is found to have anti Hbc, HbsAg, HbeAg and HBV DNA on PCR. She is found to have deranged LFTs. She is being considered for treatment. Which of the following is a common side effect of interferon?

1- Weight gain

**2- Flu like illness post injection**

3- Mania

4- Thrombocytosis

5- Haemolytic anaemia

Q2276. A 65 year old man with known alcohol excess presents to his GP. He has been feeling unwell for several months with fever, night sweats and weight loss. He has a chronic cough. On examination there is bruise like lesions on his shins. A CXR reveals a lesion in the apex of the lung. What is the most likely diagnosis?

1- Bronchial carcinoma

**2- Tuberculosis**

3- Klebsiella pneumonia

4- COPD

5- Sarcoidosis

Q2277. An 18 year old female is brought to A and E very unwell with a high fever, a macular and erythrodermic rash, myalgia and diarrhoea and vomiting. She is hypotensive. She is thought to have a tampon retained. She is transferred to ITU as she is found to be in Acute renal, liver and respiratory failure. 10 days after the onset there was desquamation of the palms and soles. From the following, what is the most likely causative organism?

1- Staphylococcus epidermidis 2- N. Meningitidis

3- EBV

**4- Streptococcus pyogenes**

5- Streptococcus Pneumoniae

Q2278. A 25 year old female has just returned from travelling around South America. She presents with a 3 day history of malaise and myalgia. This was followed by a severe headache and fever which came on suddenly. She has a dry cough and is complaining of abdominal pain. She has noticed a rash on her abdomen and axillae and this is starting to spread peripherally. On examination there is a non confluent erythematous rash on the abdomen and axillae. What is the most likely diagnosis?

**1- Epidemic Typhus**

2- Typhoid Fever

3- Endemic Typhus

4- Rocky Mountain Spotty Fever

5- Malaria

Q2279. A 22 year old female presents to her GP with increased vaginal discharge. A high vaginal swab is taken for culture and microscopy reveals a monomorphic gram negative diplococci. What treatment should be given?

**1- IM ceftriaxone**

2- Azithromycin

3- Ampicillin

4- Doxycycline

5- Ciprofloxacin

Q2280. Which of the following is not an AIDS defining illness?

1- Cytomegalovirus retinitis

2- Candidiasis

**3- Aspergillosis**

4- Kaposis Sarcoma

5- Mycobacterium tuberculosis

Q2281. When should patients who are having a splenectomy be given the pneumococcal vaccination?

**1- 2 weeks before surgery**

2- 2 weeks following surgery

3- 1 week before surgery

4- 1 week following surgery

5- 3 days before surgery

Q2282. A back packer has just returned from India and presents to his GP with a sore throat. He initially felt like he had a cold and then noticed a very severe sore throat and difficultly swallowing. He feels pyrexial and unwell. On examination there appears to be a pseudomembrane over his pharynx and he has enlarged cervical lymph nodes giving him a bull neck appearance. Given the most likely diagnosis, what treatment should be initiated?

**1- Antitoxin**

2- Blood cultures

3- Tracheostomy

4- Hydrocortisone

5- Benzylpenicillin

Q2283. An 18 year old female is brought to A and E very unwell with a high fever, a macular and erythrodermic rash, myalgia and diarrhoea and vomiting. She is hypotensive. She is thought to have a tampon retained. She is transferred to ITU as she is found to be in Acute renal, liver and respiratory failure. 10 days after the onset there was desquamation of the palms and soles. Which of the following is not useful in the management?

1- Vancomycin

2- Clindamycin

**3- Ciprofloxacin**

4- Penicillin V

5- Cephalosporins

Q2284. A 22 year old male has recently had unprotected sex and has notices the development of a firm lesion on his penis. He states it begin as a small bump which then ulcerated and the became a firm lesion. It is not painful. He has associated inguinal lymphadenopathy which is not painful. What is the most likely diagnosis?

1- Lymphogranuloma venereum

2- Chancroid

3- Genital warts

4- Herpes simplex virus

**5- Syphilis**

Q2285. What is the most common cause of an outbreak of diarrhoea and vomiting in a hospital setting?

1- Rota virus

2- Clostridium difficile 3- B. Cereus

**4- Norovirus**

5- Staph. Aureus

Q2286. An 22 year old returning from Africa on holiday presents to his GP. Whilst on holiday he had developed an itchy rash for several days. He now feels unwell with myalgia, cough, headache, bloody diarrhoea and an itchy rash/ On examination there is hepatosplenomegaly and evidence of urticaria. What is the most likely diagnosis?

1- Malaria

2- Yellow fever

**3- Schistosomiasis**

4- Hepatitis A

5- Leishmaniasis

Q2287. In Lyme disease, which complication is most likely to lead to a collapse?

**1- Atrioventricular block**

2- Dilated cardiomyopathy

3- Meningitis

4- Myocarditis

5- Mild encephalitis

Q2288. In all non falciparum malaria what is the most appropriate initial treatment of choice?

1- Malarone

**2- Chloroquine**

3- Mefloquine

4- Quinine

5- Doxycycline

Q2289. A 16 year old boy presents with severe pain at the angle of his jaw and a temperature. He then develops parotid swelling. 4days later he develops testicular swelling and worsening fever, sweats and backaches. His testicles are very tender on examination. What is the most likely diagnosis?

**1- Mumps**

2- HIV

3- Measles

4- Testicular torsion

5- Infectious Mononucleosis

Q2290. A 42 year old male was eating a meal at a restaurant when he became unwell. He had a Tuna fish steak, which tasted bitter and peppery, and about 20 minutes after consuming this he felt flushed, nauseous, and anxious with a headache and palpitations. He felt a tingling sensation around his mouth and developed a diffuse, macular, blanching rash over his upper chest and neck. Which of the following is the most likely diagnosis?

**1- Scromboid food poisoning**

2- Anaphylaxis

3- Toxic Shock syndrome 4- S. Aureus toxin food poisoning

5- Angioedema

Q2291. A back packer has just returned from India and presents to his GP with a sore throat. He initially felt like he had a cold and then noticed a very severe sore throat and difficultly swallowing. He feels pyrexial and unwell. On examination there appears to be a pseudomembrane over his pharynx and he has enlarged cervical lymph nodes giving him a bull neck appearance. What is the most likely diagnosis?

1- Oral candidiasis

2- Infectious mononucleosis

**3- Diphtheria**

4- Bacterial tonsillitis

5- Viral tonsillitis

Q2292. A patient with HIV presents confusion, a seventh nerve palsy and seizures. He is pyrexial and on fundoscopy there is evidence of multiple yellow white patches. A CT of the head reveals multiple bilateral cerebral lesions which are ring enhancing. What is the most likely diagnosis?

1- Cerebral tumour

**2- Toxoplasmosis**

3- Candidiasis

4- Cerebral metastases

5- CMV

Q2293. A patient presents with jaundice. He has recently came back from Asia. He states he has not been feeling well for some weeks with a flu like illness. He has intermittent diarrhoea, fever, malaise and a headache. On examination there is tender hepatomegaly. What is the most likely diagnosis?

1- CMV

**2- Hepatitis A**

3- HIV Seroconversion

4- Infectious mononucleosis

5- Hepatitis B

Q2294. A patient presents with jaundice and abnormal LFTs. He has been diagnosed with a hydatid cyst. Which of the following is the most likely causative agent?

1- Taenia Solium

**2- Echinococcus granulosus**

3- Diphyllobothrium latum

4- Hymenolepis Nana

5- Taenia Saginata

Q2295. A 19 year old student has just returned from back packing. He brought to A+E as he has profuse watery diarrhoea and vomiting although he is not complaining of any abdominal pain. The diarrhoea has a fishy odour and a rice water appearance. On examination he appears dry and he is tachycardic and hypotensive with a postural drop in blood pressure. What is the most likely diagnosis?

1- Salmonella infection

2- Shigella infection

3- Dysentery

**4- Cholera 5- E. Coli infection**

Q2296. Which of the following is associated with Cervical cancer? 1- N. Gonorrhoea

2- Human papillomavirus type 6 and 11

3- Herpes simplex virus

**4- Human papillomavirus type 16 and 18**

5- HIV

Q2297. What is the most common organism that leads to impetigo?

1- Streptococcus pyogenes

**2- Staphylococcus aureus**

3- Streptococcus viridans

4- Staphylococcal epidermidis

5- Herpes simplex

Q2298. A back packer has just returned from India and presents to his GP with a sore throat. He initially felt like he had a cold and then noticed a very severe sore throat and difficultly swallowing. He feels pyrexial and unwell. On examination there appears to be a pseudomembrane over his pharynx and he has enlarged cervical lymph nodes giving him a “bull neck” appearance. Given the most likely diagnosis, what treatment should be initiated?

1- Hydrocortisone

2- Benzylpenicillin

**3- Antitoxin**

4- Blood cultures

5- Tracheostomy

Q2299. What simple measures has lead to the reduction of spread of infectious organisms?

1- Antibiotics

2- MRSA eradication therapy

3- Single toliets

**4- Hand Hygiene**

5- Single side rooms

Q2300. A 19 year old male has recently been back packing to South America. He is brought to A+E unwell. A couple of weeks prior to this he had been complaining of headache, constipation, a cough and feeling feverish. He now looks extremely unwell with a high temperature, diarrhoea and vomiting. On examination he is hypotensive but his heart rate is only 90. His abdomen is distended and there is evidence of hepatomegaly and splenomegaly. What is the most likely diagnosis?

1- Influenza

2- E Coli

**3- Typhoid fever**

4- Malaria

5- Tuberculosis

Q2301. or any other examination findings. A CT brain scan shows hypodensity in both temporal lobes. Cerebrospinal fluid reveals an elevated white cell count, predominantly monnuclear cells, a slightly raised protein concentration and a normal CSF/blood glucose ratio. Which treatment should be initiated early for effective treatment?

1- Intravenous fluids, aciclovir and broad spectrum antibiotics

**2- Intravenous fluids and IV aciclovir**

3- Intravenous fluids, antibiotics and prophylactic anticonvulsants

4- IV fluids and broad spectrum antibiotics

5- Intravenous fluids, aciclovir, antibiotics and corticosteroids

Q2302. A 42 year old male with Acute Myeloid Leukamia who has recently underwent chemotherapy is found to be pyrexial. He feels generally unwell. He is commenced on IV gentamicin and tazocin however 2 days later he is still unwell and pyrexial. Which of the following should you then consider commencing?

**1- Amphotericin B**

2- Nil

3- Add IV meropenem

4- Add IV vancomycin

5- IV fluconazole

Q2303. In a patient who is aged over 50 or under 3 months of age, what is an appropriate addition to ceftriaxone for the empirical management of meningitis?

**1- Amoxicillin 2g 6 hourly**

2- Rifampicin

3- Gentamicin

4- Amoxicillin 1g 8 hourly

5- Vancomycin

Q2304. A 12 year old is brought to his GP. He has been unwell for the last few days with a fever, coryza, diarrhoea and a dry cough. On examination there is evidence of small red spots with a white speck in the centre opposite the second molar on the buccal mucosa. There is also evidence of an erythematous rash on the forehead and neck. She then becomes short of breath and there is evidence of bibasal crepitations. What is the most likely diagnosis?

**1- Measles**

2- Mumps

3- Rubella

4- Kawasaki disease

5- Stills disease

Q2305. A 55 year old male has been admitted to ITU with severe sepsis. He had required ventilation and multiple antibiotics due to resistance. He has recovered and has been transferred to the ward after 2 weeks in ITU. Unfortunately he becomes unwell and feverish. He has a cough productive of green sputum. A CXR confirms pneumonia. You are concerned about possible MRSA pneumonia. Which of the following is an appropriate antibiotic regime?

1- Amoxicillin and Metronidazole

2- Ceftriaxone

3- Co-amoxiclav and clarithromycin

**4- Meropenem and gentamicin and vancomycin**

5- Vancomycin

Q2306. A 36 year old farmer presents with a lesion on his finger. He has a mild fever. On examination there is blood tinged pustule. He states this began as a small, firm reddish blue lesion. What is the most likely diagnosis?

**1- Orf**

2- Wart

3- Herpes zoster

4- Molluscum contagiosum

5- Herpes simplex

Q2307. In an outbreak of meningococcal meningitis, which of the following should be utilised as chemoprophylaxis for contacts?

1- Ceftriaxone

2- Cefotaxime

3- Penicillin V

4- Doxycycline

**5- Rifampicin**

Q2308. An 18 year old male who has just started university presents with a sore throat, malaise and fever. On examination there is tonsillar enlargement. They appear exudative and there is petechiae on his palate. There is evidence of cervical lymphadenopathy and hepatomegaly. Bloods reveal an elevated ESR and deranged LFTs. What is the most likely diagnosis?

**1- Infectious Mononucleosis**

2- Hepatitis B

3- HIV Seroconversion

4- Viral Pharyngitis

5- Streptococcal Throat Infection

Q2309. An 18 year old female is brought to A and E very unwell with a high fever, a macular and erythrodermic rash, myalgia and diarrhoea and vomiting. She is hypotensive. She is thought to have a tampon retained. She is transferred to ITU as she is found to be in Acute renal, liver and respiratory failure. 10 days after the onset there was desquamation of the palms and soles. What is the most likely diagnosis?

**1- Toxic Shock syndrome**

2- Scarlet fever

3- Meningococcal septicaemia

4- Kawasaki disease

5- Infectious mononucleosis

Q2310. A back packer has just returned from India and has noticed some erythematous patches. Some have developed into plaques and ulcers. What is the most likely diagnosis?

1- Sarcoidosis

2- Visceral Leishmaniasis

**3- Cutaneous Leishmaniasis**

4- Guttate psoriasis

5- Lepromatous leprosy

Q2311. A 26 year old patient is brought to A and E very unwell with headache, neck stiffness, photophobia and fever. A lumbar puncture is performed and reveals a glucose of more than half of serum, a protein of 0.6 g/L and predominantly mononuclear cells. Given the most likely diagnosis, which of the following investigation can aid in confirming the diagnosis?

1- Ziehl Nielsen staining of CSF

2- Culture of CSF

3- Blood cultures

4- T spot test

**5- PCR of CSF**

Q2312. A 22 year old male has just returned from Africa and presents with painful inguinal lymphadenopathy. He states he had noticed a painless ulcer on his penis about one week ago and then he noticed very tender lumps in his groins. The lymph nodes on examination are tender and fixed and the skin overlying is a dusky erythematous colour. Some of them are fluctuant. What is the most likely diagnosis?

1- Syphilis

2- Chancroid

**3- Lymphogranuloma venereum**

4- Herpes simplex virus

5- Genital warts

Q2313. Which of the following does not cause a bloody diarrhoea? 1- E. Coli

2- Campylobacter

**3- Cholera leads to profuse watery diarrhoea whilst the others can cause bloody diarrhoea.**

4- Shigella

5- Salmonella

Q2314. Which of the following implies previous immunisation to hepatitis B?

1- HbsAg

2- Anti HbcAg

3- anti Hbc

4- HbeAg

**5- anti Hbs**

Q2315. Following a splenectomy which one of the following is the patient at risk of infection with?

1- Influenza A

2- Gonorrhoea

**3- Streptococcus pneumoniae**

4- CMV

5- Staphylococcus aureus

Q2316. A 22 year old male has recently had unprotected sex and has notices the development of a firm lesion on his penis. He states it begin as a small bump which then ulcerated and the became a firm lesion. It is not painful. He has associated inguinal lymphadenopathy which is not painful. You suspect syphilis however his EIA, FTA abs, TPHA and VDRL are negative. Which other test if positive will confirm early primary syphilis?

1- Negative dark ground microscopy

2- CSF sample

3- Repeat VDRL in a few weeks

**4- Positive dark ground microscopy**

5- Blood cultures

Q2317. What anitbiotic should be used if a patient presents following a dog bite?

**1- Co amoxiclav**

2- Nil

3- Amoxicillin

4- Flucloxacillin

5- Metronidazole

Q2318. A 56 year old male with type 2 diabetes mellitus presents with severe pain in his shin after cutting it in the garden. On examination there is an area of erythema and swelling which is hot and tender to touch. It is extremely painful and tender even out with the erythematous area. He feels unwell and is tachycardic. Given the most likely diagnosis, what initial antibiotic regime is appropriate?

1- IV benzylpenicillin

2- IV benzylpenicillin + IV flucloxacillin

**3- IV benzylpenicillin + clindamycin + gentamicin**

4- IV meropenem

5- IV flucloxacillin

Q2319. Which of the following is a cause of gastroenteritis due to preformed toxins in contaminated food?

1- Campylobacter Jejeuni

2- Shigella

3- Salmonella 4- S. aureus 5- E. Coli

Q2320. A 64 year male was treated with clindamycin for skin boils. These have resolved however a nasal swab reveals MRSA which is PantonValentine Leukocidin positive. Which of the following is the most appropriate treatment?

1- Retreat with Rifampicin

2- Nil required

3- Treat with flucloxacillin

4- Retreat with Rifampicin and Doxycycline

**5- Chlorhexidine wash and Nasal Mupirocin**

Q2321. A 25 year old gentleman has recently returned from travelling around Asia. He presents to his GP as he is feeling unwell with a headache, cough and myalgia. He has also noticed a fever which comes and goes every couple of days. On examination there is evidence of hepatosplenomegaly, fever and jaundice. What is the most likely diagnosis?

1- Malaria secondary to plasmodium malariae

**2- Malaria secondary to plasmodium ovale**

3- Dengue fever

4- Typhoid

5- Malaria secondary to plasmodium falciparum

Q2322. A patient presents with genital warts wishing treatment. On examination there is several small warts on the penis and under the foreskin. These are soft and accessible. What treatment would you recommend?

1- Podophyllotoxin 0.5% liquid

2- Topical aciclovir

3- Cryotherapy

4- Imiquimod

**5- Podophyllotoxin 0.15% cream**

Q2323. A 72 year old female has been diagnosed with tuberculosis. Her 24 year old granddaughter has been living with her. She has not previously had a BCG vaccination. What is your next management step for her granddaughter?

**1- Mantoux Test and if negative administer BCG**

2- Mantoux test and if positive administer BCG

3- Isoniazid Preventative Therapy

4- Administer BCG

5- Nil required

Q2324. A patient is commenced on vancomycin, rifampicin and gentamicin for an MRSA infective endocarditis. However the patient has an allergy to vancomycin. Which of the following is an appropriate alternative?

1- Fluconazole

2- Meropenem

3- Ceftriaxone

4- Metronidazole

**5- Daptomycin**

Q2325. A 25 year old man presents with diarrhoea. This came on suddenly and was watery however there is now evidence of mucous and blood. He is also complaining of abdominal cramps and malaise. He does not appear dehydrated and is otherwise fit and well. A stool culture reveals a gram negative bacilli. What is the most likely causative agent?

1- Enterotoxic E. Coli

2- Shigella dysenteriae

3- Clostridium difficle

**4- Shigella Sonnei**

5- Vibrio cholera

Q2326. Which of the following is not a live vaccine?

1- Measles vaccination

**2- Diphtheria vaccination**

3- Typhoid vaccination

4- Yellow fever vaccination

5- Sabin polio vaccination

Q2327. A 70 year old stood on a rusty nail a few days ago. He then became unwell with a flu like illness and then developed neck stiffness, trismus and swallowing difficulties. Given the most likely diagnosis, what should be done next?

1- Diazepam

2- CT head

3- IV benzylpenicillin

4- Tracheostomy

**5- IV immunoglobulin**

Q2328. A back packer has just returned from India and has noticed some erythematous patches. Some have developed into plaques and ulcers. Given the most likely diagnosis, how is this transmitted?

1- Faecal oral route

**2- Sandfly**

3- Mosquitoes

4- Sexually

5- Ticks

Q2329. An 22 year old returning from Africa on holiday presents to his GP. Whilst on holiday he had developed an itchy rash for several days. He now feels unwell with myalgia, cough, headache, bloody diarrhoea and an itchy rash. On examination there is hepatosplenomegaly and evidence of urticaria. Given the most likely diagnosis, what treatment is appropriate?

1- Chloroquine

**2- Praziquantel**

3- Quinine

4- Nil

5- Oxamniquine

Q2330. A 26 year old patient is brought to A and E very unwell with headache, neck stiffness, photophobia and fever. A lumbar puncture is performed and reveals a glucose of less than half of serum, a protein of 1.2 g/L and predominantly polymorphs. What is the most likely diagnosis?

1- Tuberculosis meningitis

2- Migraine

3- Viral meningitis

**4- Bacterial meningitis**

5- Subarachnoid haemorrhage

# Chapter 16 2010 September

Q2331. Which of the following is not useful in differentiating ventricular tachycardia from supraventricular tachycardia with aberrant conduction?

1- QRS width >160 ms

2- Concordance of QRS in chest leads

3- RBBB with left axis deviation on ECG

4- Capture and fusion beats

**5- Very irregular rhythm**

Q2332. Which of the following should be avoided in broad complex tachycardia?

1- Atenolol

2- Cardioversion

3- Amiodarone

**4- Verapamil**

5- Sotalol

Q2333. The existence of atrial fibrillation with mitral stenosis results in which of the following?

1- Nil

2- Large a wave and v wave

**3- Disappearance of a wave and large V wave**

4- Deep x and y descents

5- Large a wave

Q2334. Which of the following findings is suggestive of another valvular lesion in a patient with mitral stenosis and no evidence of atrial fibrillation?

1- Haemoptysis

2- Loud first heart sound

3- Large a wave

**4- Large V wave**

5- Right ventricular hypertrophy

Q2335. A 58 year old gentleman has severe central crushing chest pain for about half an hour which is finally relieved by GTN. There is evidence of ST depression in the anterolateral leads and his troponin is elevated. He is treated with aspirin, clopidogrel and LMWH. What is the next appropriate management?

**1- Urgent coronary angiography as an inpatient**

2- Coronary Angiography as an outpatient

3- Cardiac Rehabilitation

4- Discharged with Outpatient cardiac clinic follow up

5- Exercise Tolerance Test

Q2336. An 20 year old student is brought to A and E following a collapse in an a night club. There was no suspicion of illicit drug use. He has had 3 collapse episodes previously. He had regained consciousness after a few minutes. There is nil of note on examination with BP and HR within normal parameters. However, an ECG shows a QT interval of 0.56. Which ion channel is likely to be defective and have caused these signs and symptoms?

**1- Potassium**

2- Calcium

3- Magnesium

4- Sodium

5- Chloride

Q2337. An 19 year old who has been generally unwell with a sore throat presents with chest pain worse on inspiration and relieved on sitting forwards. An ECG shows saddle ST elevation in numerous leads and there is a rub on auscultation. What is the most likely diagnosis?

1- EBV

**2- Pericarditis**

3- STEMI

4- Myocarditis

5- Cardiac Tamponade

Q2338. A 70 year old man with Chronic Renal Impairment and Hypertension presents with chest pain and is found to have an acute anterolateral myocardial infarction. He is referred for PCI. 2 days later you are asked to review him as his legs appear dusky and his left big and second toe are blue and there is evidence of splinter haemorrhages on his toe nails. His BP is 150/90 mmHg and his pulse is regular and has a rate of 80 bpm. On auscultation his heart sounds are normal however there is evidence of a left femoral bruit.

**1- Cholesterol embolism**

2- Peripheral vascular disease

3- Contrast nephropathy

4- Renal artery stenosis

5- Embolism from femoral artery

Q2339. Which is the strongest indicator of schizophrenia?

1- Headaches

2- Auditory hallucinations

3- Agitation

4- Social isolation

**5- Lack of insight**

Q2340. A 24 year old male presents to his GP to talk about the messages that he receives through a chip in his fillings. The chip can control his thoughts and his movements. He believes that he is being used by an unknown power for an unknown mission. This has occurred for 4 months but it has only troubled him recently. What is the diagnosis?

1- Bipolar syndrome

2- Personality disorder

3- Normal

**4- Schizophrenia**

5- Depression

Q2341. Which of the subtypes of schizophrenia is characterised by prominent thought disorder, abnormal behaviour and a flat or inappropriate affect?

**1- Hebephrenic or disorganised schizophrenia**

2- Catatonic schizophrenia

3- Paranoid schizophrenia

4- Residual schizophrenia

5- Undifferentiated schizophrenia

Q2342. Which of the following does cortisol bind to predominantly?

1- Albumin

2- Unbound

3- Cholesterol

4- Sex hormone binding globulin

**5- Corticosteroid binding globulin**

Q2343. Half of aldosterone is bound to which of the following?

1- Adipose tissue

2- Chylomicron

3- PreAlbumin

**4- Corticosteroid binding globulin**

5- Sex hormone binding globulin

Q2344. What is the risk following a needle stick injury of a HIV positive patient of contracting HIV?

1- 1 in 3

**2- 1 in 300**

3- 1 in 30

4- 1 in 50

5- 1 in 3000

Q2345. A 60 year old man presents with sudden painless sight loss in his left eye when he woke that morning. On examination, visual acuity is normal in the right eye and decreased in the left. A marked afferent papillary defect is seen. Fundoscopy shows retinal haemorrhages globally, dilated tortuous retinal veins, cotton wool spots and macular oedema. The right eye is normal. The patient has no history to note, is not on any medication, but his blood pressure at examination was 190/110 and a blood sugar of 13.1 mmol/L. What has caused the sight loss?

**1- Central retinal vein occlusion**

2- Ocular ischaemic syndrome

3- Branch retinal vein occlusion

4- Hypertensive retinopathy

5- Diabetic retinopathy

Q2346. Prolactin leads to suppression of which of the following?

**1- Oestradiol**

2- Thyroid

3- ADH

4- Growth hormone

5- Nil

Q2347. Which of the following best describes the mechanism of action of allopurinol?

**1- Xanthine Oxidase Inhibitor**

2- Increases degradation of uric acid

3- Xanthine oxidase activator

4- Increased urinary excretion

5- Binds uric acid

Q2348. What is the mechanism of action of digoxin?

1- Increases sympathetic activity

**2- Inhibits Na+/K+ ATPase pump**

3- Inhibits Na+/Ca2+ pump

4- Increases intracellular potassium

5- Activates Na+/K+ ATPase pump

Q2349. A patient is suspected of ingesting ethylene glycol. She is found to be acidotic and hypocalcaemic. She is given fomepizole. What is its mechanism of action?

1- Restores glutathione store

2- Inhibitor of ethylene glycol

**3- Competitive inhibition of alcohol dehydrogenase**

4- Chelates toxic metabolites

5- Increases metabolism of ethylene glycol

Q2350. Gastrin leads to hydrochloric acid secretion from parietal cells both directly and indirectly. Which of the following is the best description of the indirect mechanism?

1- Bind to histamine receptors on parietal cells

2- Binds to gastrin receptor on ECL cells which then hydrogen ions

3- Binds to gastrin receptors on parietal cell

**4- Binds to gastrin receptors on ECL cells which then release histamine**

5- Binds to gastrin receptor on ECL cells which then secrete prostaglandins

Q2351. A 68 year old male is being treated for a UTI. He suffers an achilles tendon rupture. Which of following antibiotic is he most likely to be taking?

1- Nitrofurantoin

2- Amoxicillin

**3- Ciprofloxacin**

4- Coamoxiclav

5- Trimethoprim

Q2352. A patient with rheumatoid arthritis presenting with increasing dyspnoea. Which of the following drugs is most likely responsible?

1- Hydroxychloroquine

2- Sulphasalazine

**3- Methotrexate**

4- Gold

5- NSAIDs

Q2353. Which of the following is the best description of the mechanism of action of docetaxel?

1- Pyrimidine antimetabolite

**2- Suppression of microtubule dynamic assembly and disassembly leading to inhibition of mitosis**

3- Inhibition of folic acid reductase

4- Inhibition of DNA replication

5- DNA damage leading to inhibition of DNA synthesis and apoptosis

Q2354. Which of the following is not a cause of nephrogenic diabetes insipidus?

**1- Head Injury**

2- Renal tubular acidosis

3- Lithium toxicity

4- Hypercalcaemia

5- Hypokalaemia

Q2355. A patient with a past history of a psychiatric disorder presents with nausea, vomiting, tremor and ataxia. An ECG shows flattened t waves. What is the most likely diagnosis?

1- Tardive dyskinesia

**2- Lithium toxicity**

3- Dystonia

4- Serotonin syndrome

5- Tricyclic antidepressants overdose

Q2356. In addition to tissue typing of HLA A,B and DR, what other HLA typing is useful for allogeneic bone marrow transplantation?

1- HLA DPA1

2- Nil else required

3- HLA DPB1

**4- HLA C**

5- HLA DQA1

Q2357. Which of the following is associated with a good prognosis in acute myeloid leukaemia?

1- AML following chemotherapy

**2- t(15;17)**

3- AML following myelodysplasia

4- Normal cytogenetics

5- Age >60

Q2358. Which of the following causes of thrombophilia leads to a reduced sensitivity to activated protein C inactivation?

1- Antiphospholipid syndrome

2- Antithrombin mutation

3- Prothrombin mutation

**4- Factor V Leiden**

5- Protein C deficiency

Q2359. Which immunoglobulin is normally found in type 1 cryoglobulinaemia?

1- Rheumatoid factor

**2- IgM**

3- IgD

4- IgA

5- IgG

Q2360. A 68 year old gentleman is being investigated for evidence of an M paraprotein band, raised ESR and weight loss. He suddenly develops visual disturbance, renal failure and headache. How should this patient be managed?

1- Prednisolone

2- Rituximab

3- Chlorambucil

**4- Urgent plasmapheresis**

5- Urgent CT head

Q2361. A 14 year old male has been unwell with a flu like illness with fever, arthralgia and general malaise. He has also noticed that he easily bruises and has noticed some blood in his urine. On examination he is pyrexial, jaundiced and there is evidence of purpura. Bloods reveal anaemia, thrombocytopenia. raised reticulocyte count, elevated LDH, increased bilirubin and renal failure. A blood film reveals schistocytes. What is the most likely diagnosis?

1- Haemolytic uraemic syndrome

2- Idiopathic thrombocytopenic purpura

3- Henoch Schönlein Purpura

4- Haemolytic anaemia

**5- Thrombotic thrombocytopenic purpura**

Q2362. A patient with hepatitis C presents with arthralgia. He has evidence of purpuric lesions and there is evidence of proteinuria and haematuria. Cryoglobulins are elevated. The rheumatoid factor is monoclonal. What is the most likely diagnosis?

**1- Type 2 cryoglobulinaemia**

2- Multiple myeloma

3- Type I cryoglobulinaemia

4- Type 3 cryoglobulinaemia

5- Amyloidosis

Q2363. A 54 year old gentleman presents with pruritus. He is also having intermittent headaches and dizziness. On examination the patient has a ruddy complexion and splenomegaly. He is hypertensive. Bloods reveal a raised haemoglobin, increased packed cell volume and mildly elevated platelets and white cells. What is the most likely diagnosis?

1- Myelodysplasia

**2- Polycythaemia rubra vera**

3- Thrombocytosis

4- Non Hodgkins lymphoma

5- Leukaemia

Q2364. Imatinib is utilised in the management of Chronic Myeloid Leukaemia. What is its mechanism of action?

1- PPAR gamma inhibitor

2- Tyrosine Kinase Activator

3- PPAR gamma activator

**4- Tyrosine Kinase inhibitor**

5- Tyrosine kinase receptor blocker

Q2365. In hereditary haemochromatosis, the underlying mutation results in which of the following?

1- Deletion

2- Translocation

3- Frameshift

**4- Substitution**

5- Insertion

Q2366. In a patient with renal artery stenosis what is the imaging modality of choice?

**1- Magnetic resonance angiography**

2- Ultrasound scan

3- Radionuclide scans

4- CT angiography

5- CT abdomen

Q2367. A patient is found to have hypokalaemia, hyperchloraemic acidosis, hypercalciuria and a urinary pH of 6.4. What type of renal tubular acidosis does this indicate?

1- Type 4

**2- Type 1**

3- Does not indicate renal tubular acidosis

4- Type 2

5- Type 3

Q2368. If there is proteus mirabilis found in the urine, which of the following is the most likely composition of any associated renal stones?

1- Calcium phosphate

**2- Ammonium magnesium phosphate**

3- Calcium oxalate

4- Cysteine

5- Uric acid

Q2369. An 18 year old male presents with features of infectious mononucleosis. However he has now noticed quite marked swelling in his face and legs. Bloods reveal a low albumin. Urinalysis reveals proteinuria and 24 hour collection reveal an protein excretion of 4g/day. There is nil of note on a renal biopsy. What is the most likely underlying cause of his symptoms?

1- Membranoproliferative glomerulonephritis

2- Minimal change disease leading to nephritic syndrome

**3- Minimal change disease leading to nephrotic syndrome**

4- Focal segmental glomerulosclerosis

5- Membranous nephropathy

Q2370. In a patient with hereditary angioedema presenting with severe abdominal pain, how would you manage this?

**1- C1-inhibitor concentrate**

2- Adrenaline

3- FFP

4- Opioids

5- Buscopan

Q2371. In progressive massive fibrosis, what would you expect to see on pulmonary function tests?

**1- Mixed restrictive and obstructive pattern**

2- Reduced total lung capacity

3- Obstructive pattern

4- Restrictive pattern

5- Nil

Q2372. psin deficiency?

1- Alpha 1 antitrypsin is a glycoprotein

2- Protects from neutrophil elastase

3- Liver is commonly involved

**4- Most commonly recessively inherited**

5- PiZZ genotype produces severe disease

Q2373. A 28 year old farm worker presents with a dry cough and fever. For the last 2 weeks he has been suffering from a flu like illness with headache, myalgia and fatigue. Bloods reveal deranged LFTs and hyponatraemia. Which of the following is the most likely diagnosis?

1- Streptococcus pneumonia

**2- Q fever**

3- Influenza

4- Chlamydia psittaci pneumonia

5- Viral pneumonia

Q2374. What would you expect to find on pulmonary function test in a patient with morbid obesity?

1- Reduced FEV1/FVC ratio

2- Reduced total lung capacity

3- Increased total lung capacity

4- Reduced gas transfer

**5- Reduced FVC when lying flat**

Q2375. A 55 year old gentleman presents to his GP with haemoptysis. He had a previous history of tuberculosis. He has a cough and feels fevered at times. A chest xray reveals a cavitating lesion in the left upper lobe. Bloods reveal an elevated aspergillus precipitins. What is the most likely diagnosis?

1- Tuberculosis

**2- Aspergilloma**

3- Bronchial carcinoma

4- Chronic necrotising aspergillosis

5- Pneumonia

Q2376. A 32 year old presents with a one week history of malaise, fever, headache, myalgia with a sore throat, dry cough and pleuritic chest pain. On examination there is bibasal crepitations. There is evidence of erythema nodosum and bloods reveal a haemolytic anaemia and cold agglutinins. What is the most likely causative agent?

1- Streptococcus Pneumoniae

**2- Mycoplasma Pneumoniae**

3- Influenza B

4- Coxiella Burnetti 5- H. Influenzae

Q2377. Which of the following is not a feature of ARDS?

**1- Protein low fluid in alveolar space**

2- Refractory hypoxia

3- No evidence of cardiac failure

4- Bilateral diffuse infiltrates on chest xray

5- Protein rich fluid in alveolar space

Q2378. A 44 year old smoker presents with increasing shortness of breath. She states she has fainted a couple of times on exertion. On examination there is a right ventricular heave and loud pulmonary second heart sound and an ECG shows right ventricular hypertrophy. Her chest is clear. A CXR is performed and is normal. What investigation should be performed for the definitive diagnosis?

**1- CTPA**

2- Coagulation screen

3- Pulmonary function tests

4- D dimers

5- Exercise tolerance test

Q2379. A 22 year old female presents to her GP with increased vaginal discharge. A high vaginal swab is taken for culture and microscopy reveals a monomorphic gram negative diplococci. What treatment should be given?

1- Ampicillin

2- Azithromycin

3- Doxycycline

4- Ciprofloxacin

**5- IM ceftriaxone**

Q2380. A 19 year old student returns from a back packing trip around Asia. He is brought to A and E very unwell. He has a fever of 41 degrees. This came on suddenly along with severe headaches, localised retroorbitally and severe myalgia and backache. A macular confluent rash appeared a few days into his admission, over his face and flexor surfaces. His conjuctivae are red. He is also complaining of abdominal pain and bleeding gums. What is the most likely diagnosis?

1- Ebola virus

2- Typhoid fever

**3- Dengue fever**

4- Yellow fever

5- Malaria

Q2381. What is the most common cause of an outbreak of diarrhoea and vomiting in a hospital setting?

1- Rota virus

2- Clostridium difficile

3- Staph. Aureus

**4- Norovirus 5- B. Cereus**

Q2382. Which of the following does not cause a bloody diarrhoea?

1- Shigella 2- E. Coli

3- Campylobacter

4- Salmonella

**5- Cholera leads to profuse watery diarrhoea whilst the others can cause bloody diarrhoea.**

Q2383. What anitbiotic should be used if a patient presents following a dog bite?

1- Flucloxacillin

2- Amoxicillin

**3- Co amoxiclav**

4- Nil

5- Metronidazole

Q2384. A 20 year old male presents with pain and stiffness in his lumbar spine relived by exercise. He is positive for HLA B27 gene. What is the most likely diagnosis?

1- Mechanical lower back pain

**2- Ankylosing spondylitis**

3- Osteoarthritis

4- Scheurmanns Disease

5- Rheumatoid arthritis

Q2385. A 60 year old farmer presents with left hip pain. He first noticed 6 months previously however it has gradually worsened since then. It worsens over the day and is worst at the end of the day or after movement. He does notice some stiffness in the morning. What is the most likely diagnosis?

1- Rheumatoid arthritis

2- Lyme disease

3- Gout

**4- Osteoarthritis**

5- Pseudogout

Q2386. The 5 year mortality of a disease is 50%. A new treatment is developed and the relative risk for patients on this treatment is 0.9. How many patients need to use the treatment for one life to be saved?

1- 45

**2- 20**

3- 100

4- 40

5- 5

Q2387. Which of the following drugs is most likely to have caused a cholestatic jaundice even when taken at the correct dosage?

1- Phenytoin

2- Amoxicillin

3- Paracetamol

**4- Flucloxacillin**

5- Naproxen

Q2388. ing to get up from a seat. He has noticed he is easily bruising and there is evidence of striae. He is found to be hypertensive and hypokalaemic. Which investigation should be performed initially?

**1- 24 hour free urinary cortisol**

2- Urinary Catecholamines

3- High dose dexamethasone

4- CT Head and abdomen

5- ACTH measurement

Q2389. The C282Y mutation on chromosome 6 is associated with which disease?

1- FAP

2- HNPCC

3- Haemophilia A

**4- Haemochromatosis**

5- Gilberts syndrome

Q2390. A 69 year old male presents with pyrexia of unknown origin. He has no previous medical history. He has had some recent dental work. On examination he is found to be pyrexial with a temperature of 38.5oC. On auscultation of the heart there is evidence of a pansystolic murmur in the apical region. An echo is organised and reveals a vegetation and blood cultures reveal S. bovis. He is started on IV antibiotics. What investigation must be organised for this patient?

**1- Colonoscopy**

2- Nil required

3- Repeat echo

4- Repeat blood cultures

5- Upper GI endoscopy

Q2391. A 48 year old woman presents with dysphagia. This is both to liquids and solids. She has also associated retrosternal pain and she does sometimes regurgitate food. She has not had any weight loss. There is no past medical history and she is well otherwise. There is nil of note on examination and bloods are normal. A barium swallow is organised which shows a dilated oesophagus and birds beak appearance at the distal end of the oesophagus. What is the most likely diagnosis?

1- GORD

2- Oesophageal cancer

3- Chagas disease

4- Hiatus hernia

**5- Achalasia**

Q2392. What is the most useful indicator of prognosis following a paracetamol overdose?

1- Liver transaminases

2- Bilirubin

3- Renal function

4- APTT

**5- Prothrombin time**

Q2393. A 63 year old man is found by his daughter confused. He is unsure of where he is and what year it is. He then returned to normal after an hour . There is nil of note in examination and his bloods are normal. He has no PMH. What is the likely diagnosis?

1- Delirium

2- Partial Seizure

**3- Transient global amnesia**

4- Chronic subdural haematoma

5- TIA

Q2394. What is the most likely structure damage if there is foot drop with weakness of ankle dorsiflexion and eversion?

1- Sciatic nerve

2- Femoral Nerve

3- L5 S1 nerve root

**4- Common peroneal nerve**

5- Tibial nerve

Q2395. A 30 year old male is having recurrent headaches. He describes these as pain around the eye with the eye watering. These are very severe and can last for up to 2 hours and can occur several times a day for a couple of weeks before settling. What is the likely diagnosis?

1- Trigeminal Neuralgia

**2- Cluster headaches**

3- Glaucoma

4- Migraine

5- Giant Cell Arteritis

Q2396. A 45 year old female presents to her GP as she is worried about a tremor in her left hand that is worse when she is doing things. Her mother had a similar tremor. The rest of her examination is unremarkable. She is commenced on propanolol however cannot tolerate the side effects. What is an alternative management?

1- Procyclidine

**2- Primidone**

3- Reassure

4- Amantadine

5- l-Dopa

Q2397. A 50 year old female has noticed loss of taste, facial weakness and hypersensitivity to sound. On examination there is a left facial nerve palsy including the forehead and reduced sensation on the left side of the face. What structure is likely to be involved?

**1- Cerebellopontine angle**

2- Auditory canal

3- Left Facial nerve

4- Cerebral cortex

5- Parotid gland

Q2398. A 28 year old who is 7 months pregnant presents with pain and tingling in her left hand which she notices is worst in the morning. She has also noticed dropping things. On examination there is 4/5 power in the left abductor pollicis brevis and of thumb flexion. There is reduced sensation in the left thumb, index, middle and half of the lateral half of the ring finger. There is nil else of note. What is the most likely structure affected?

1- Axillary Nerve

2- Radial Nerve

3- C7 nerve root

4- Ulnar nerve

**5- Median Nerve**

Q2399. A 70 year old female presents with indigestion. On further questioning she has paraesthesia in her feet and has noticed she has been falling increasingly frequently. On examination she has 4/5 power in her legs, predominantly in the flexors, hyperreflexic knee reflexes and absent ankle reflexes. What is the most likely diagnosis?

1- Guillain Barre Syndrome

2- Stroke

3- Spinal cord compression secondary to metastases

4- Cauda Equina Syndrome

**5- Subacute combined degeneration of the cord**

Q2400. A 78 year old female suffers from a stroke. She has now developed sudden, violent swinging of her right arm. What is the most likely cause?

**1- Hemiballismus**

2- Chorea

3- Athetosis

4- Seizure

5- Tardive dyskinesia

Q2401. A 24 year old patient presents to her GP. She is complaining of a severe unilateral headache which has occurred at least twice monthly for the last 6 months. The headache is preceded by flashing lights in her left eye and tingling and numbness in her right hand which then spreads up to her arm and face. She is photophobic with the headache and vomits. She has tried paracetamol, naproxen and aspirin with no relief and she has had to take several days of sickness from work. What is the best management course?

1- Addition of opioid analgesia

2- Prophylaxis with sodium valproate and sumatriptan for acute attacks

3- CT Head

**4- Prophylaxis with propanolol and sumatriptan for acute attacks**

5- Prophylaxis with Amitriptyline and sumatriptan for acute attacks

Q2402. If there is evidence of a right superior homonymous quadrantanopia, where is the likely site of the lesion?

**1- Left temporal lobe**

2- Left occipital lobe

3- Right optic nerve

4- Left parietal lobe

5- Optic chiasm

Q2403. Which of the following is most useful in differentiating progressive supranuclear palsy from Parkinsons disease?

**1- Difficulty looking up and down**

2- Severity of symptoms

3- Dementia

4- Lack of tremor

5- Falls

Q2404. Which of the following is thought to be the most important activator of glucokinase transcription within the liver?

1- Glucokinase regulatory protein

2- Glucose activating sterol regulatory element binding protein 1c

3- Insulin inhibiting sterol regulatory element binding protein 1c

**4- Insulin activating sterol regulatory element binding protein 1c**

5- Glucagon activating sterol regulatory element binding protein 1c

Q2405. How do glucocorticoids mediate their effect on the body?

1- Hormone receptor complex and via phosphorylation bind to hormone response element on DNA

2- Binds to cell surface receptors and forms heterodimers

**3- Hormone receptor complex and via zinc fingers bind to hormone response element on DNA**

4- Binds to extracellular receptor and it is engulfed and travels to nucleus

5- Binds to cell surface receptor and activates G proteins resulting in change in gene expression

Q2406. A 44 year old man who is homeless and admits to excessive alcohol intake presents with a purple rash on his shins. On examination it is tender on palpation and appears as purple nodules. What is the most likely diagnosis?

1- Insect bites

**2- Erythema nodosum**

3- Bruising

4- Erythema Multiforme

5- Vasculitis

Q2407. A 37 year old male notices a blistering rash on his hands developing after working on a sunny day in the garden. This has occurred previously and led to some scarring. He has also noticed some hair developing on his cheek. What investigation would you perform to confirm the diagnosis?

1- Patch testing

2- Blood cultures

3- Autoantibodies

**4- Plasma and urinary uroporphyrins**

5- Skin biopsy

Q2408. A 52 year old with known alcohol excess presents with facial flushing, pustules and telangiectasia predominantly around the nose. What is the most likely diagnosis?

1- Allergic reaction

2- Drug reaction

3- Seborrhoeic Dermatitis

**4- Rosacea**

5- Acne vulgaris

Q2409. A 72 year old female presents to her GP after noticing blisters on her arms and legs. She has recently been commenced on furosemide. On examination there is tense blisters evident predominantly on the flexural surfaces of her arms and legs. There is no evidence of blisters in her mucous membranes. There is some healing areas where the blisters have burst but no evidence of scarring. A skin biopsy is organised and reveals subepidermal blister and inflammatory infiltrate with numerous eosinophils. What is the most likely diagnosis?

1- Pyoderma gangrenosum

2- Dermatitis Herpetiformis

3- Eczema herpeticum

4- Pemphigus vulgaris

**5- Bullous Pemphigoid**

Q2410. A 70 year old presents with a lesion on his cheek. The lesion has a raised, pearly border and there is telangiectasia on the surface of the lesion. What is the most likely diagnosis?

1- Actinic Keratosis

**2- Basal Cell Carcinoma**

3- Wart

4- Melanoma

5- Squamous Cell Carcinoma

Q2411. A 35 year old man with inflammatory bowel disease presents with an ulcer. On examination he has a deep ulcerating lesion on his leg. How would you confirm the diagnosis? No further investigation

1- Immunoglobulins

2- Doppler Ultrasound

3- No further investigations

4- Autoantibodies

**5- Biopsy and culture from the ulcer**

Q2412. Which of the following is not a feature of MEN type 1?

1- Prolactinoma

2- VIPoma

3- Zollinger Ellison syndrome

**4- Phaeochromocytoma**

5- Parathyroid hyperplasia

Q2413. A 25 year old male who appears to have Marfans syndrome presents with headache, anxiety, weight loss and palpitations. He is found to be hypertensive. He also has a swelling in his neck. There is some evidence of neuromas. A 24 hour urinary catecholamine confirms phaeochromocytoma. What is the most likely underlying diagnosis?

1- MEN type 1

2- MEN type 2A

3- Phaeochromocytoma

**4- MEN type 2b**

5- Medullary thyroid carcinoma.

Q2414. A 25 year old patient presents with polyuria and polydipsia. A fasting glucose is 9mmol/l. She states that she has a strong family history of diabetes with her father, grandfather and 2 of her uncles have diabetes who all developed it at a young age. Her BMI is 23. She is commenced on gliclazide and gains very good control. What is the most likely diagnosis?

1- Maturity onset diabetes of the young type 2

2- Type 2 Diabetes Mellitus

3- Gestational Diabetes

4- Type 1 Diabetes Mellitus

**5- Maturity onset diabetes of the young type 3**

Q2415. Which of these should not be utilised in the management of a thyrotoxic storm?

1- Beta blockers

2- Corticosteroids

3- Carbimazole or Propylthiouracil followed by Lugols solution

**4- Lugols Solution followed by carbimazole or propylthiouracil**

5- Chlorpromazine

Q2416. Which of the following drugs is the most likely to cause gynaecomastia?

1- Thyroxine

2- Omeprazole

3- Atenolol

4- Citalopram

**5- Spironolactone**

Q2417. Which of the following is not a contraindication for the use of metformin?

1- Chronic Kidney Disease

2- Chronic Liver Disease

3- Within 2 days of contrast medium injection

**4- Hypertension**

5- Severe respiratory insufficiency

Q2418. A 32 year old female presents with a lump in her neck which is deemed to be of thyroid origin. It is giving her some problems with swallowing. Her thyroid function tests are normal and an ultrasound is arranged. A radionuclide uptake scan is organised and shows a cold nodule and her FNA is suspicious of follicular carcinoma. How would you manage this patient?

**1- Total thyroidectomy, radioiodine therapy and oral replacement**

2- Radioiodine therapy and oral replacement

3- Total Thyroidectomy

4- Thyroxine

5- Watch and Wait

Q2419. If a patient is symptomatic with thyrotoxicosis during pregnancy, how should this be managed?

1- Block and replace

2- Radioiodine therapy

3- Thyroidectomy

4- Monitor

**5- Carbimazole**

Q2420. A 63 year old gentleman with type 2 diabetes mellitus was previously well controlled on metformin and gliclazide. However his recent HbA1c was 8.2% and he has been struggling with his blood sugars. He is a lorry driver. He is on maximum dose of metformin and gliclazide. What treatment option would be least appropriate in this case?

**1- Insulin**

2- Vildagliptin

3- Saxagliptin

4- Pioglitazone

5- Sitagliptin

Q2421. A 60 year old male presents with headaches. On examination he appears to have very large hands and a prominent jaw. He is hypertensive and appears to be sweating profusely. Which of the following is useful in the first instance for the diagnosis?

1- Short synacthen

2- Growth hormone levels

**3- IGF1 levels followed by growth hormone levels before and after glucose tolerance test**

4- Glucose levels

5- Cortisol levels

Q2422. A 60 year old presents with tiredness, depression, polyuria, polydipsia and constipation. He is found to have a calcium of 3.0mmol. His phosphate level is low and alkaline phosphatase high. Urinary calcium excretion is also elevated. What is the most likely diagnosis?

1- Metastases

2- Sarcoidosis

3- Familial Hypocalciuric Hypercalcaemia

**4- Primary hyperparathyroidism**

5- Myeloma

Q2423. Which of the following suggests more severe mitral regurgitation?

1- Split S2

2- Soft S1

3- Length of murmur

4- Loudness of murmur

**5- Displacement of apex beat and systolic thrill**

Q2424. A 30 year old woman presents with palpitations. She is found to have a regular tachycardia of 200 bpm. She is normally fit and healthy and has no past medical history however drinks 5 mugs of coffee per day and uses alcohol excessively. She is not compromised with a blood pressure of 130/80mmHg with no chest pain and no signs of heart failure. Her bloods are all within normal parameters however the ECG confirms a narrow complex tachycardia of 200 bpm. If after giving IV adenosine 3mg and then 6mg this fails what should be the next management step?

1- IV Atenolol

2- IV verapamil

3- IV amiodarone 900mg

4- DC Cardioversion

**5- IV 12mg adenosine**

Q2425. A 56 year old man is 48 hours post STEMI and suddenly develops pulmonary oedema. He looks unwell with a BP of 90/50mmHg and a heart rate of 105 bpm. He has bibasal crackles and a pansystolic murmur on auscultation. What investigation due you organise?

1- Troponin T

2- ECG

3- CXR

4- Cardiac Angiography

**5- Urgent echocardiogram**

Q2426. Which of the following is the most likely to lead to a fixed, wide split second heart sound?

1- Mitral stenosis

2- Ventricular Septal Defect

3- Aortic Regurgitation

**4- Atrial Septal defect**

5- Aortic stenosis

Q2427. How should a patient with unstable preexcited atrial fibrillation secondary to Wolff parkinson white be managed?

1- Atenolol

2- Digoxin

3- Verapamil

**4- DC Cardioversion**

5- Adenosine

Q2428. A 65 year old gentleman with type 2 diabetes mellitus is found incidentally to have left bundle branch block on his ECG. It had not been present on previous ECGs. An ECHO reveals no structural abnormality. You want to exclude a myocardial infarct. What investigation should be performed in the first instance?

1- Coronary angiography

**2- Exercise tolerance test**

3- Thallium perfusion scan

4- Repeat ECG

5- CT angiography

Q2429. An echocardiogram is performed on a patient prior to surgery and reveals a very small pericardial effusion but no other abnormalities. He is asymptomatic. What should be done regarding this prior to surgery?

**1- Proceed with surgery, nil required**

2- NSAIDs

3- Troponin

4- Postpone surgery and perform further investigations

5- Pericardial drain

Q2430. Which of the following suggests the presence of mitral regurgitation as well as mitral stenosis?

1- Raised JVP

2- Atrial fibrillation

**3- Displaced apex beat**

4- Localised tapping apex beat

5- Loud P2

Q2431. A patient with a 6 month history of low mood and some suicidal thoughts is discussing her treatment options. Which of the following is the best pharmacological treatment?

1- Haloperidol

2- Selegiline

3- Lorazepam

**4- Fluoxetine**

5- Amitriptyline

Q2432. A patient describes a sensation in which some of her thoughts are repeated by a voice in her head. How is this normally described?

1- Thought multiplication

2- Echophonia

3- Thought revolving

4- Thought broadcasting

**5- Thought echo**

Q2433. A 34 year old female presents regularly with minor symptoms to her GP. She states her gut is sometimes very active and noisy and she is worried that she may have cancer. She has asked for further investigations to be performed. A colonoscopy reveals no abnormalities. She is not reassured by this. What is the most likely diagnosis?

1- Body dysmorphic disorder

2- Somatization disorder

**3- Hypochondriasis**

4- Irritable bowel syndrome

5- Conversion disorder

Q2434. A patient with schizophrenia believes that his body is being controlled by an alien. What is the best description of this?

1- Persecutory delusions

**2- Delusions of control**

3- Grandiose delusions

4- Delusions of reference

5- Somatic delusion

Q2435. Which of the following suggests damage to the oculomotor nerve (CNII I) ?

1- Constricted pupil on the affected side

**2- Ptosis of the upper eyelid on the affected side**

3- The eye is deviated downwards and medially at rest

4- A light shone into the affected eye does not produce constriction of the opposite pupil

5- Inability to laterally deviate the eye on that side

Q2436. What would you expect on examination of a patient with paralysis of the deltoid?

1- Concurrent weakness of the brachioradialis

2- The first 60 degrees of abduction is normal due to the normal function of the supraspinatus muscle

3- Anaesthesia over the biceps brachii of the affected side

**4- Weakness of abduction when the shoulder is internally rotated.**

5- Drooping of the shoulder on the affected side

Q2437. Which of the following ocular signs would you find in acne rosacea?

1- Swollen optic disc

2- Ptosis

3- Cataract

4- Uveitis

**5- Keratitis**

Q2438. A 68 year old male with previous history of TIA presents with unilateral painless vision loss. The retina is pale and the macula appears as a cherry red spot. What is the most likely cause of the vision loss?

1- Retinal detachment

2- Vitreous haemorrhage

3- Age related macular degeneration

**4- Central retinal artery occlusion**

5- Retinal vein occlusion

Q2439. A patient with previous history of cold sores presents with a painful right eye. On examination there is evidence of conjuntival injection in the right upper quadrant and this area is exquisitely tender. Fluorescein dye is applied and reveals a dendritic lesion. What is the most likely diagnosis?

1- Foreign body

2- Episcleritis

**3- Herpes simplex ulcer**

4- Bacterial ulcer

5- Scleritis

Q2440. Which oxygen delivery device should be utilised in COPD patients?

1- CPAP

2- Simple face mask

**3- Venturi mask**

4- Trauma mask

5- Nasal cannulae

Q2441. How is the majority of cortisol metabolised and excreted from the body?

1- Metabolised in liver and excreted in bile acids as free cortisol

2- Hepatic metabolism

**3- Metabolised in liver, metabolites conjugated and excreted in the urine**

4- Metabolised in liver and excreted in bile acids as conjugated metabolites

5- Metabolised in liver and excreted in the urine as cortisol

Q2442. Which of the following is a feature of diastolic dysfunction?

1- Impaired myocardial contraction

2- Dilated left ventricle

**3- Impaired myocardial relaxation**

4- High output

5- Reduced end diastolic volume

Q2443. A patient who has been stable on the same dose of morphine sulphate for many years becomes opiate toxic. He has been unwell and has not been eating or drinking. From the following, what is the most likely cause?

1- Alcohol

2- Hyperthyroidism

**3- Acute renal failure**

4- Liver failure

5- Asthma

Q2444. In acute chemotherapy induced nausea and vomiting, which of the following is most useful in addition to ondansetron?

1- Domperidone

2- Cyclizine

**3- Dexamethasone**

4- Prochlorperazine

5- Metoclopramide

Q2445. Which of the following is the most appropriate regime for neutropenic sepsis?

1- Vancomycin

**2- Tazocin and gentamicin**

3- Coamoxiclav and clarithromycin

4- Tazocin and metronidazole

5- Coamoxiclav

Q2446. What is the mechanism of action of dipyridamole?

**1- Phosphodiesterase innhibitor**

2- COX2 inhibitor

3- ADP receptor blocker

4- COX1 inhibitor

5- Phosphodiesterase activator

Q2447. Which of the following anticonvulsants is most likely to cause hyponatraemia?

1- Lamotrigine

2- Phenytoin

**3- Carbamazepine**

4- Sodium valproate

5- Gabapentin

Q2448. Which of the following anticonvulsants has been associated with dupuytren's contracture?

1- Lamotrigine

**2- Phenytoin**

3- Levetiracetam

4- Carbamazepine

5- Sodium valproate

Q2449. Which of the following is a side effect which would be most likely to occur with the progesterone only pill rather than the combined oral contraceptive pill?

1- Breast tenderness

**2- Irregular periods**

3- Depression

4- Migraine

5- DVT

Q2450. In addition to the dopamine receptor, which other receptor does risperidone antagonise and mediate its effects through?

1- H2

**2- 5HT2**

3- 5HT3

4- Ach

5- Beta 2

Q2451. A 50 year old African man is found to be hypertensive. Which of the following should be used first line?

1- Diltiazem

**2- Bendroflumethiazide**

3- Losartan

4- Ramipril

5- Atenolol

Q2452. A patient with hypertension and ischaemic heart disease is requesting sildenafil. Which of the following drugs would prevent it being prescribed? Ramipril

1- Furosemide

2- Aspirin

3- Atenolol

**4- Nicorandil**

5- Clopidogril

Q2453. clinic due to a slightly elevated platelet count which has been repeated several times during the year. She is very well and states she has no PMH but had an operation as child although she is unsure of what this was for. Her Haemoglobin and white cell count is normal. A blood film does not show giant platelets or platelet clumps but does reveal Howell Jolly bodies. How would you investigate next?

1- Haematinics

2- Tumour markers

**3- Repeat history and examination for indication of a splenectomy**

4- Septic screen

5- Bone Marrow Biopsy

Q2454. A 26 year old female presents to her GP after noticing her urine has been a dark brown colour. She admits to feeling increasingly tired over the last few months and has noticed herself bruising easily. Bloods reveal a low haemoglobin which is macrocytic. She also has low platelets and evidence of increased LDH, low haptoglobin and increased reticulocyte count. A dipstick reveals haematuria however microscopy does not reveal in red blood cells. What is the most likely diagnosis?

1- Spherocytosis

2- Folate deficiency

**3- Paroxysmal nocturnal haemoglobinuria**

4- Immune Thrombocytopenic purpura

5- Autoimmune haemolytic anaemia

Q2455. A 60 year old female is suffering from back pain which has woken her from her sleep for the last few months. An xray reveals vertebral collapse and lytic lesions. She has also noticed feeling thirsty and has been more constipated. Bloods reveal a normochromic normocytic anaemia, thrombocytopenia, leucopenia, renal impairment and hypercalcaemia. What investigation will provide a definitive diagnosis?

1- MRI

2- Bence Jones protein

**3- Serum protein electrophoresis**

4- Bone marrow biopsy

5- Peripheral blood film

Q2456. A patient with sickle cell anaemia has chronic joint pain. She develops a sudden onset of severe pain in her hands. Which of the following will confirm this is a vasoocclusive crisis rather than her chronic pain and will alter management?

1- Haemoglobin electrophoresis

2- Sickle cell solubility

**3- None of these options**

4- Reticulocyte count

5- Haemoglobin

Q2457. Which of the following is thought to be useful in reducing pain crises in sickle cell anaemia?

1- Azathioprine

2- NSAIDs

**3- Hydroxyurea**

4- Methotrexate

5- Hydroxychloroquine

Q2458. A patient is undergoing a blood transfusion when she begins to feel feverish and unwell. She is tachycardic and hypotensive and is suffering from flank pain. Her coombs test is positive. What is the most likely diagnosis?

**1- Acute haemolytic reaction**

2- Sepsis

3- Febrile non haemolytic reaction

4- Transfusion related lung injury

5- Bacterial contamination

Q2459. A young man speaks to his GP as he is concerned about having a heart attack. His father had a heart attack aged 41, his grandfather died of a heart attack aged 58 and 2 of his uncles have had heart attacks in their 40s. What is the most likely genetic background?

1- Familial apoprotein CII deficiency

2- Familial lipoprotein lipase deficiency

3- Familial hypertriglyceridemia

**4- Familial hypercholesterolaemia**

5- Hyperhomocysteinaemia

Q2460. A patient has a brother with sickle cell disease and she is planning a family. She does not have the condition. Assuming the population carrier frequency is 1 in 100, what is the chance of her child having the disease?

1- 1 in 150

2- 1 in 1200

3- 1 in 10

4- 1 in 25

**5- 1 in 600**

Q2461. A 38 year old male presents with fatigue and weight loss. He has a long history of recurrent sinusitis, epistaxis and dry cough. He is found to have haematuria on urinalysis. He is cANCA positive. What is the most likely diagnosis?

1- Malignancy

2- Haemolytic Uraemic syndrome

3- Goodpastures syndrome

**4- Wegeners granulomatosis**

5- Churg Strauss syndrome

Q2462. A 55 year old gentleman with a history of hypertension, currently controlled with ramipril, presents with swelling of his tongue and lips. What is the most likely diagnosis?

**1- Angioedema secondary to ramipril**

2- Anaphylactic reaction

3- Trauma

4- C1 inhibitor deficiency

5- Hereditary angioedema

Q2463. What therapy can be useful in severe oral and genital ulceration?

1- Etanercept

**2- Thalidomide**

3- Nil

4- Methotrexate

5- Infliximab

Q2464. reveals a normal FEV1/FVC ratio and reduced gas transfer. What is the most likely diagnosis?

1- Bronchial carcinoma

2- COPD

3- Pulmonary fibrosis secondary to Hodgkins Lymphoma

**4- Pulmonary fibrosis secondary to Bleomycin**

5- Asthma

Q2465. Which of the following is not a poor prognostic factor for pneumonia?

1- Confusion

2- Urea of 7.2 mmol/L

3- Age 72

4- Systolic BP 88mmHg

**5- Respiratory rate of 28**

Q2466. A 52 year old presents with normally well controlled asthma presents with, shortness of breath, wheeze and nocturnal cough. He has noticed coughing up blood on several occasions. He also complains of feeling generally unwell with a headache and fever. Bloods reveal an elevated eosinophil count and IgE. A CXR reveals new infiltrates. Which of the following will confirm the diagnosis?

1- Autoantibodies

**2- Serology for aspergillus precipitins**

3- High resolution CT

4- Lung biopsy

5- Pulmonary function tests

Q2467. In regards to cryptogenic fibrosing alveolitis, which of the following is not true?

**1- Reduced elastic recoil**

2- Normal to high FEV1/FVC

3- Reduced FVC

4- Reduced FEV1

5- Poor lung compliance

Q2468. A 25 year old female presents with dry cough, fever and shortness of breath. She has also been suffering from night sweats and malaise. She has also noticed bruise like lesions on her shins. She is found to have an elevated ESR and a CXR reveals bilateral hilar lymphadenopathy, a pleural effusion and evidence of reticulo nodular shadowing in the upper lobes. What is the most likely diagnosis?

1- Lymphoma

2- Lung cancer

3- Tuberculosis

4- Rheumatoid arthritis

**5- Sarcoidosis**

Q2469. A patient is being treated with IV vancomycin and gentamicin for prosthetic valve infective endocarditis. He is not improving and MRSA is suspected. Which of the following is a reasonable addition to the current management?

1- Flucloxacillin

2- Doxycycline

3- Fluconazole

**4- Rifampicin**

5- Ciprofloxacin

Q2470. In all non falciparum malaria what is the most appropriate initial treatment of choice?

1- Doxycycline

2- Quinine

3- Malarone

**4- Chloroquine**

5- Mefloquine

Q2471. A 16 year old boy presents with severe pain at the angle of his jaw and a temperature. He then develops parotid swelling. 4days later he develops testicular swelling and worsening fever, sweats and backaches. His testicles are very tender on examination. What is the most likely diagnosis?

1- HIV

**2- Mumps**

3- Infectious Mononucleosis

4- Measles

5- Testicular torsion

Q2472. Which of the following is associated with Cervical cancer?

1- Human papillomavirus type 6 and 11

2- HIV 3- N. Gonorrhoea

4- Herpes simplex virus

**5- Human papillomavirus type 16 and 18**

Q2473. A 36 year old farmer presents with a lesion on his finger. He has a mild fever. On examination there is blood tinged pustule. He states this began as a small, firm reddish blue lesion. What is the most likely diagnosis?

1- Molluscum contagiosum

**2- Orf**

3- Herpes simplex

4- Wart

5- Herpes zoster

Q2474. A back packer has just returned from India and has noticed some erythematous patches. Some have developed into plaques and ulcers. What is the most likely diagnosis?

1- Visceral Leishmaniasis

2- Lepromatous leprosy

**3- Cutaneous Leishmaniasis**

4- Guttate psoriasis

5- Sarcoidosis

Q2475. A 39 year old presents with malaise, myalgia and weight loss. She has had a cough and recurrent haemoptysis. She has also noticed a rash. On examination there is evidence of palpable purpura. ANCA PR3 and ANCA MPO are positive and an eosinophil count is normal. What is the most likely diagnosis?

1- Goodpastures syndrome

**2- Microscopic polyangiitis**

3- Churg Strauss syndrome

4- Wegeners granulomatosis

5- Polyarteritis Nodosa

Q2476. What tendon abducts the arm from 0 to 90 degrees?

1- Infraspinatus tendon

**2- Supraspinatus tendon**

3- Subscapularis tendon

4- Teres major tendon

5- Teres minor tendon

Q2477. A 62 year old female with known osteoarthritis and diabetes presents with sudden swelling and pain in her left knee. It is hot, red and tender. What investigation should be performed?

1- Blood culture

2- Joint fluid microscopy

3- Analgesia

**4- Joint aspiration for gram stain, microscopy and culture**

5- Xray of knee

Q2478. A 32 year old female presents with muscle weakness. She is finding it difficulty to climb stairs and brush her hair. Over her knuckles there is erythematous scaly papules. What is the most likely diagnosis?

1- Polymyalgia Rheumatica

2- Polymyositis

**3- Dermatomyositis**

4- Systemic lupus erythematosus

5- Psoriasis

Q2479. A 28 year old with sickle cell disease present with left hip pain. An Xray reveals loss of the femoral head and periarticular sclerosis. What is the most likely diagnosis?

1- Perthes disease

2- Osteoporosis

**3- Avascular necrosis**

4- SUFE

5- Osteoarthritis

Q2480. A 50 year old with obesity and hypertension present with pain and swelling in his left first MTP. On examination there is evidence of swelling and erythema over his first MTP. He is currently on Bendroflumethiazide, amlodipine and ramipril for his hypertension and also aspirin and orlistat. There is nil else of note on examination. An x-ray of his left foot shows reduced join space and calcification. Which drug could be causative?

1- Amlodipine

2- Aspirin

3- Ramipril

**4- Bendroflumethiazide**

5- Orlistat

Q2481. A 50 year old presents with sudden onset, atraumatic shoulder pain. On examination there is tenderness over the greater tuberosity of the humerus and subacromial bursa and there is a restriction in his range of abduction. An xray reveals calcification of the supraspinatus tendon. What is true regarding calcification of the supraspinatus tendon?

1- The calcification is most likely composed of calcium urate crystals

2- It does not ever also involve the infraspinatus

**3- The calcification is most likely composed of calcium hydroxyapatite crystals**

4- NSAIDS and physio are not useful

5- The calcification is most likely composed of Calcium pyrophosphate

Q2482. In regards to methotrexate, what is true?

1- It is not associated with GI side effects

2- Pancytopenia is not a side effect

3- A patient does not need to be on birth control

4- Bloods should be checked every 3 months

**5- The peak improvement is seen in 4-6 months**

Q2483. What is the most common finding in blood testing for those with SLE?

1- Rheumatoid factor

**2- Low complement levels**

3- Anti double-stranded DNA

4- Anticardiolipin antibody

5- ANA

Q2484. Which of the following is least useful in monitoring disease activity in SLE?

1- ESR

2- Symptomology

3- Complement levels

**4- ANA**

5- Anti dsDNA

Q2485. A 65 year old gentleman with rheumatoid arthritis presents with difficulty moving his right shoulder. He is complaining of a dull ache of his shoulder. On examination he is unable to actively abduct his arm however once abduction is initiated passively he can keep his arm elevated. What is the most likely diagnosis?

1- Adhesive capsulitis

**2- Torn rotator cuff**

3- Rheumatoid arthritis

4- Osteoarthritis

5- Rotator cuff tendonitis

Q2486. In which type of study does recall bias pose a substantial problem?

1- Randomised double blind control study

2- Meta-analysis

**3- Retrospective case-controlled study**

4- Prospective study cohort study

5- Crossover study

Q2487. In a retrospective case-control study looking at lung disease, the results found that 800 of the cases and 110 of the controls were smokers. 2000 cases and 2000 controls were examined in the study. What is the odds ratio for the development of lung disease in smokers.

**1- 11.5**

2- 0.13

3- 7.2

4- 0.09

5- 9

Q2488. Regarding relative risk, which of the following is true?

**1- It is the probability of an event occurring in an exposed group relative to a non exposed group**

2- Can be positive or negative

3- Describes the chance of a patients family developing a disease

4- Is calculated by the square root of the mean incidence in the exposed group divided by the mean incidence in the non exposed group

5- When the risk is equal amongst the exposed and unexposed group, the value is 0

Q2489. Which of the following bias are meta analysis most susceptible to?

**1- Publication bias**

2- Statistical analysis

3- Methodological bias

4- Response bias

5- Volunteer bias

Q2490. A 54 year old gentleman presents with new symptoms of dyspepsia. He has also noticed 5kg of weight loss over the last few months. An upper GI endoscopy is performed and reveals a lesion which is biopsied. This reveals a MALToma. What is the appropriate management for this patient?

1- Partial gastrectomy 2- H. pylori eradication

3- Chemotherapy

4- Monitoring

5- Radiotherapy

Q2491. A 20 year old has been having bloody diarrhoea for the last 2 months. She is brought to A and E as she is very unwell, moving her bowels about 15 times a day even through the night and is having abdominal pain. On examination she is very tender generally in the abdomen and she is hypotensive and tachycardic. How would you next manage this patient?

1- Inflammatory markers

2- Flexible Sigmoidoscopy

3- IV steroids

**4- Fluid resuscitation and AXR**

5- IV antibiotics

Q2492. A 64 year old female presents with right upper quadrant pain, fever and jaundice. She has been suffering from right upper quadrant pain after eating for several months. She is found to have elevated inflammatory markers and deranged LFTs with greatly elevated bilirubin and increased alkaline phosphatase. She is commenced on IV antibiotics but is not responding well and bloods continue to worsen. What is the next stage in her management?

1- Add in gentamicin to current regime

2- MRCP

**3- Urgent endoscopic biliary decompression**

4- Change IV antibiotics

5- Cholecystectomy

Q2493. A 42 year old male who is obese and has type 2 diabetes mellitus has been found to have deranged LFTs on routine bloods. He gives a vague history of fatigue and right upper quadrant pain. On examination it is difficult to assess if there is hepatomegaly due to his BMI. He denies any excessive alcohol intake, blood transfusion or IV drug use. His liver screen is negative. An ultrasound reveals a hyperechogenic bright liver. Given the most likely diagnosis what would you expect to see on liver biopsy?

**1- Fatty infiltration, inflammation and fibrosis**

2- Nil

3- Fatty infiltration

4- Regenerating nodules

5- Lymphoid follicles and plasma cell infiltration

Q2494. A 50 year old female presents with fatigue and pruritus. Bloods reveal a raised ALP and high normal bilirubin. Antimitochondrial antibodies are found and raised IgM. Given the most likely diagnosis, what treatment should be commenced?

1- D penicillamine

2- Azathioprine

3- Rifampicin

**4- Ursodeoxycholic acid**

5- Methotrexate

Q2495. A 28 year old pregnant female presents with pruritus. Bloods reveal deranged transaminases and elevated bilirubin. Other bloods are normal. What is the most likely diagnosis?

1- Viral hepatitis

**2- Intrahepatic Cholestasis of Pregnancy**

3- Acute fatty liver

4- Hyperemesis Gravidarum

5- HELLP syndrome

Q2496. A 32 year old female has a sudden onset occipital headache and describes it is as the worst headache of her like. She vomits several times and feels her neck stiff. A CT head is performed and is normal. How would you investigate this lady further?

1- MRI

2- Routine Bloods

**3- Lumbar Puncture after 12 hours**

4- Repeat C Head in 12 ours

5- Prescribe a triptan and analgesia and discharge

Q2497. A 37 year old joiner is referred to the clinic as he has a 6 month history of lower back pain. It had come on suddenly 6 months ago. He now has shooting pain down the back of both legs worse on left than right. He also has numbness in his left foot. On examination the pain is reproduced at 20 degrees straight leg lift on left. He has reduced sensation over the sole of his foot of his foot and his ankle reflex is diminished and plantars are down going. Which of the following is the likely diagnosis?

1- Cauda equina syndrome

2- L4/L5 disc prolapse

**3- L5/S1 disc prolapse**

4- Discitis

5- Mechanical Back pain

Q2498. You are referred a 14 year old boy as he has been noted to be ataxic and dysarthric. On examination you notices he has a bilateral resting tremor and odd spasms in his facial muscles. Blood tests reveal deranged LFTs. Which of the following is the most likely diagnosis to explain his signs and symptoms?

1- CJD

2- Parkinsons Disease

3- Motor Neurone Disease

**4- Wilsons disease**

5- Huntingtons chorea

Q2499. A 68 year old female presents with left shoulder blade and axillary pain. This radiates down her arm to her fingers worst in the index and middle finger. She has a history of chronic neck pain. On examination she has reduced, painful neck movements. There is 4/5 power in wrist extension and reduced sensation to pain in the middle and index fingers. There of loss triceps reflex on the left. At what level is her cervical disc prolapse likely to be?

1- C8, T.1

2- C4,5

**3- C6,7**

4- C7,8

5- C5,6

Q2500. A 54 year old male has been referred as there has been a change in his personality over the last few years. He has been sexually inappropriate, forgetful and unable to plan. There is nil of note on examination. What is the most likely diagnosis?

1- New Variant CJD

2- Alzheimers disease

**3- Frontotemporal dementia**

4- Normal pressure hydrocephalus

5- Frontal Tumour

Q2501. A 48 year old female is complaining of repeatedly burning her right hand as she is unaware of the temperature. She also has occipital headaches which are worsened by sneezing and coughing. Which of the following is the likely diagnosis?

**1- Syringomyelia**

2- Brachial Plexus Injury

3- Cervical Disc Prolapse

4- Peripheral Neuropathy

5- Space Occupying lesion

Q2502. A 65 year old gentleman presents to his GP with bilateral leg pain. This develops after he has walked for about ten minutes, where he feels pain and burning. He also feels that his legs are weak. The pain is only relieved once he sits down for a few minutes. He finds the pain is worse when walking uphill. On examination he has palpable peripheral pulses. He has a past medical history of osteoarthritis. What is the most likely diagnosis?

1- Meralgia Paraesthetica

2- Disc Prolapse

3- Polymyositis

**4- Spinal stenosis**

5- Peripheral vascular disease

Q2503. A 38 year old obese woman presents with headache. These are worse in the morning and last thing at night and on coughing. There are relieved on standing. There is evidence of bilateral papilloedema on fundoscopy. A CT head shows no abnormalities. Which of the following is the most likely diagnosis?

1- Multiple sclerosis

2- Hydrocephalus

**3- Idiopathic intracranial hypertension**

4- Subarachnoid haemorrhage

5- Space occupying lesion

Q2504. A 20 year old female with a history of narcolepsy is having a fight with her boyfriend when she suddenly falls to the ground. She states that she just felt her whole body was weak. She was fully conscious during the whole episode and it lasted for about 30 seconds. What is the most likely diagnosis?

1- Complex partial seizure

2- Vasovagal syncope

**3- Cataplexy**

4- Tonic clonic seizure

5- Narcolepsy

Q2505. A 28 year old gentleman had an URTI. Approximately 2 weeks later he presented to A and E with a distal weakness. On examination he is pyrexial and slightly tachycardic with a normal blood pressure but is tachypneoic. Neurological examination reveals 4/5 power in all limbs distally and weakness is his facial muscles. There is no sensation loss. Reflexes are absent. Given the most likely diagnosis, what treatment would be most useful?

1- Nerve conduction studies

2- Gabapentin

**3- IV Immunoglobulin**

4- Nil specific

5- IV methylprednisolone

Q2506. How do glucocorticoids mediate their effect on the body?

**1- Hormone receptor complex and via zinc fingers bind to hormone response element on DNA**

2- Binds to cell surface receptors and forms heterodimers

3- Hormone receptor complex and via phosphorylation bind to hormone response element on DNA

4- Binds to cell surface receptor and activates G proteins resulting in change in gene expression

5- Binds to extracellular receptor and it is engulfed and travels to nucleus

Q2507. Which of the following is an important mechanism to prevent cortisol inappropriately activating aldosterone receptors in the kidney?

1- Lack of affinity of cortisol for aldosterone receptors

**2- 11bhydroxydehydrogenase type 2 enzyme activity converting cortisol to cortisone**

3- 11bhydroxydehydrogenase type 1 enzyme activity converting cortisol to cortisone

4- Cortisol renally excreted

5- Downregulation of aldosterone receptors

Q2508. Which of the following utilises gel electrophoresis to identify a specific protein?

**1- Western blotting**

2- Southern blotting

3- Northern blotting

4- Polymerase chain reaction

5- In situ hybridisation

Q2509. Mutation of which of the following genes has been linked to a hereditary condition which results in increased susceptibility to cancer with many different types of cancer occurring in a family at a young age and more than one cancer occurring in one person?

1- Nil

**2- p53**

3- BRCA1

4- BRCA2

5- Mismatch repair genes

Q2510. A 20 year old male presents with a rash to his GP. It is predominantly over his trunk and there is multiple papules and red scaly plaques with some looking like rain drops. These are itchy. He has recently been unwell with presumed strep. throat. He has recently had sex with a new partner. What is the most likely diagnosis?

1- Secondary syphilis

2- Toxic Epidermal Necrolysis

**3- Guttate psoriasis**

4- Pityriasis

5- Reiters syndrome

Q2511. A patient who is 16 weeks pregnant and has a BMI of 35, is found to have a fasting glucose of 6.0 mmol/L. What is the next course of action?

1- Nil required as diabetes is excluded

2- Dip urine to ensure no ketones

3- Glucose tolerance test at 28 weeks

**4- Glucose tolerance test**

5- Repeat fasting glucose at 28 weeks

Q2512. A 65 year old gentleman is on metformin and gliclazide however continues to have a HbA1c of 8.7%. He is not keen to commence insulin. He has previously had an episode of left ventricular failure. His BMI is 21. Which of the following should be considered next?

**1- Sitagliptin**

2- Insulin

3- Monitor

4- Exenatide

5- Pioglitazone

Q2513. A 19 year old female presents with irregular periods to her GP. You notice she is overweight and has acne. She admits that she has to regularly bleach her upper lip hair and has a line of hair from her umbilicus to her pubic hair which she is embarassed about. Her bloods reveal an elevated LH:FSH ratio and testosterone is at the high end of normal and sex hormone binding globulin is low. Her fasting glucose is 6.2. Which of the following would be most useful in the treatment?

**1- Metformin**

2- Clomiphene

3- Progesterone only pill

4- Combined oral contraceptive

5- Orlistat

Q2514. Which of the following is most suggestive of an adrenal tumour as the cause of cushings syndrome?

1- MRI of pituitary normal

2- Increased urinary cortisol

**3- Undetectable ACTH**

4- Increased ACTH

5- Increased CRH

# Chapter 17 2011 January

Q2515. A 23 year old female who has history of a cardiac condition wants to start a family with her husband and has been referred to the cardiology clinic for advice. What condition is an absolute contra indication to pregnancy?

1- PFO

2- ASD

**3- Primary pulmonary hypertension**

4- Mitral valve prolapse

5- Bicuspid aortic valve

Q2516. An 19 year old who has been generally unwell with a sore throat presents with chest pain worse on inspiration and relieved on sitting forwards. An ECG shows saddle ST elevation in numerous leads and there is a rub on auscultation. What is the most likely diagnosis?

1- EBV

2- Cardiac Tamponade

**3- Pericarditis**

4- Myocarditis

5- STEMI

Q2517. A 16 year old female presents generally unwell with a pyrexia and painful swollen joints. She has recently suffered from a sore throat. On examination there is evidence of synovitis in the knees and ankles although on previous days it was evident in the wrists and elbows. There is abnormal involuntary movements and on cardiovascular exam there is evidence of aortic regurgitation. She also had had evidence of a maculopapular rash. Her ESR and CRP were elevated. What is the most likely diagnosis?

1- Henoch Schönlein Purpura

2- Infective Endocarditis

3- Scarlet fever

4- Stills Disease

**5- Rheumatic fever**

Q2518. Which of the following pulse characters is most typical of left ventricular failure?

1- Pulsus paradoxus

2- Collapsing pulse

3- Small volume pulse

**4- Pulsus alternans**

5- Jerky pulse

Q2519. A 22 year old female has been suffering from intermittent palpitations. She states these occur about four times a year and she is finding them increasingly troublesome. A 24 hour ECG is organised and she is found to have paroxysmal atrial fibrillation. She is fit and well otherwise. She was commenced on a beta blocker however could not tolerate the side effects as she was having vivid dreams which were disturbing her sleep. Which of the following could be utilised as an alternative?

1- Sotalol

2- Verapamil

3- Digoxin

**4- Flecainide**

5- Amiodarone

Q2520. In a patient with a small VSD which of the following would be found?

1- Markedly increased pulmonary vasculature on CXR

2- LVH on ECG

3- Left axis deviation on ECG

4- Cardiomegaly on CXR

**5- Harsh pansystolic murmur at lower left sternal edge**

Q2521. In a small ventricular septal defect, what would you expect to happen to oxygen saturations?

**1- O2 saturation higher in right ventricle than right atrium**

2- O2 saturation higher in right ventricle than left ventricle

3- O2 saturation lower in right ventricle than right atrium

4- O2 saturation higher in right atrium than left atrium

5- Nil

Q2522. A 35 year old female presents with shortness of breath on exertion, fatigue and syncope. On examination there is a continuous machinery murmur best heard under the left clavicle. Her pulse is bounding. A CXR is consistent with pulmonary oedema and there is evidence of LVH on ECG. What is the most likely diagnosis?

1- Ventricular septal defect

2- Mitral regurgitation

3- Aortic stenosis

4- Coarctation of the aorta

**5- Patent ductus arteriosus**

Q2523. In a STEMI secondary to cocaine use what is the underlying mechanism which leads to myocardial ischaemia and infarction?

1- Thrombosis

2- Tachycardia

**3- Coronary artery spasm**

4- Embolism

5- Atherosclerotic plaque rupture

Q2524. A 67 year old male presents to his GP with a cold right hand. He has had a previous coronary artery bypass graft 3 years ago. Over the last few months he has noticed his hand being cold and painful. It occurs at rest and is not worsened by any particular movements. On examination his capillary refill time is slowed to about 3 seconds. The hand is cold and the radial pulse is impalpable. The rest of the examination is normal. He has not had an angina attack for some time. What is the most likely cause?

1- Ulnar artery trauma

2- Atherosclerosis of the radial artery

3- Embolism

**4- Radial artery trauma**

5- Raynaud's Phenomenon

Q2525. What is the main ECG found in hypocalcaemia?

1- Tall tented T waves

2- ST depression

3- Shortened QT interval

4- Peaked P waves

**5- Prolonged QT**

Q2526. Which of the following is the most common complication of coronary angiography?

1- Stroke

2- Myocardial Infarction

3- Contrast nephropathy

4- Cholesterol Embolisation

**5- Vascular complications**

Q2527. A 24 year old female presents to her GP with feeling anxious. On further questioning she states she is constantly ruminating about things. On numerous occasions she constantly obsesses about whether or not she has locked the doors or switched off the gas and she has to go back three or four times to check if this is the case. She has also had repeated images of violent acts which she tries to resist but cannot. What is the most likely diagnosis?

1- Schizophrenia

2- Anxiety

3- Obsessional personality

4- Depressive disorder

**5- Obsessive compulsive disorder**

Q2528. A patient presents with features of Bipolar disorder. Which of the following should be utilised as a mood stabiliser?

1- Quetiapine

**2- Lithium**

3- Risperidone

4- Citalopram

5- Olanzapine

Q2529. Which of the following is a tumour marker for breast cancer?

1- HCG

2- CA 19-9

3- CEA

4- CA 125

**5- CA 15-3**

Q2530. Which of the following is in a state of continuous inhibition?

**1- Prolactin**

2- ACTH

3- LH

4- TSH

5- FSH

Q2531. Which of the following is a side effect of sildenafil use?

1- Yellow halo around objects

2- Vitreous haemorrhage

3- Bodily secretions turn pink

**4- Blue tint to vision**

5- Difficulty discriminating red/greem

Q2532. A patient on lithium for Bipolar disorder requires an antihypertensive. Which of the following is the drug of choice?

1- Ramipril

2- Furosemide

**3- Amlodipine**

4- Bendroflumethiazide

5- Losartan

Q2533. Which of the following is the best description of the mechanism of action of docetaxel?

**1- Suppression of microtubule dynamic assembly and disassembly leading to inhibition of mitosis**

2- Inhibition of folic acid reductase

3- Pyrimidine antimetabolite

4- Inhibition of DNA replication

5- DNA damage leading to inhibition of DNA synthesis and apoptosis

Q2534. Which of the following clotting factors is not inhibited by warfarin?

**1- Factor VIII**

2- Factor VII

3- Factor II

4- Factor IX

5- Factor X

Q2535. What is the mechanism of action of carbimazole?

1- Thyroxine antagonist

2- Binds to iodine inhibiting it's uptake

3- Blocks iodine receptors

**4- Inhibits iodine binding to thyroglobulin**

5- Activates thyroid peroxidase

Q2536. A 64 year old gentleman has recently been commenced on an antihypertensive medication. He then presents to hospital with facial swelling with the tongue and lips markedly swollen. There is no evidence of urticaria. What is the most likely cause of his facial swelling?

1- Thiazide induced angioedema

2- Anaphylaxis

**3- ACE Inhibitor induced angioedema**

4- Latex allergy

5- NSAID induced angioedema

Q2537. A patient is commenced on isoniazid and is a fast acetylator. Which of the following is this patient more likely to develop than a slow acetylator?

1- Hepatotoxicity

2- Nausea

3- Treatment failure

**4- None of these**

5- Peripheral Neuropathy

Q2538. A patient has recently underwent a liver transplant and is found to have hyperkalaemia. He is on anti rejection drugs but is otherwise well and is on no other medications. What is the most likely cause of his hyperkalaemia?

1- Ciclosporin

2- Ramipril

3- NSAIDs

4- None of these

**5- Tacrolimus**

Q2539. Which of the following antibiotics does not require dose alteration in renal failure?

1- Gentamicin

2- Tazocin

**3- Ceftriaxone**

4- Co amoxiclav

5- Vancomycin

Q2540. A young patient with Glucose-6-phosphate dehydrogenase deficiency is planning on travelling to Africa, however is concerned regarding malaria prophylaxis. What do you advise?

1- Avoid mefloquine

2- Nil required

**3- Avoid primaquine**

4- Use of only mosquito nets

5- Avoid doxycycline

Q2541. A 28 year old female presents feeling very tired, short of breath on exertion and palpitations for the last few days. She has recently had a course of cefalexin for a Urinary tract infection. She is otherwise normally fit and well. On examination the patient looks pale and the sclerae appear yellow. She is tachycardic. Bloods reveal a low haemoglobin with a high reticulocyte count and evidence of spherocytes on the blood film. Her bilirubin was elevated (majority being unconjugate d) but the rest of her LFTs were normal and her LDH was elevated. A direct Coombs test was positive.

1- Hereditary spherocytosis

2- Warm autoimmune haemolytic anaemia

**3- Drug induced immune haemolytic anaemia**

4- Cold autoimmune haemolytic anaemia

5- Gallstones

Q2542. A patient with acute myeloid leukaemia presents with disseminated intravascular coagulation. What chromosomal abnormality would you expect to find?

1- Inv 16

2- t(8; 21)

3- t(9;22)

**4- t(15;17)**

5- 11q23

Q2543. What drug therapy should be utilised in a patient with essential thrombocythaemia?

1- Aspirin

2- Clopidogrel

3- Dalterparin

**4- Aspirin and hydroxyurea**

5- IV Immunoglobulin

Q2544. A 35 year old female presents with menorrhagia. She also gives a history of epistaxis. Bloods reveal a normal prothrombin time and platelet count however a prolonged bleeding time and APTT. LFTs are normal. What is the most likely diagnosis?

1- Disseminated intravascular coagulation

**2- Von Willebrands disease**

3- Factor V Leiden

4- Haemophilia A

5- Prothrombin mutation

Q2545. Which of the following is not associated with a poor prognosis in Hodgkins lymphoma?

1- Lymphopenia

2- Presence of B symptoms

3- Lymphocyte depleted disease

**4- Young age**

5- High ESR

Q2546. A 12 year old girl presents with profuse diarrhoea. It was initially watery and then became bloody. She was unwell with fever, abdominal pain, petechial rash and vomiting. Bloods reveal a low haemoglobin with elevated reticulocytes, LDH and bilirubin, low platelets and acute renal failure. Coombs test is negative. What is the most likely diagnosis?

1- Ulcerative Colitis

2- Gastroenteritis

3- Thrombotic thrombocytopenic purpura

4- Acute leukaemia

**5- Haemolytic uraemic syndrome**

Q2547. Following a splenectomy, which complication is the biggest risk?

1- Bleeding

**2- Infection**

3- Thrombosis

4- Lymphoma

5- Pulmonary fibrosis

Q2548. A 64 year old male presents with general malaise, weight loss and night sweats. He also complains of abdominal discomfort in the left upper quadrant. On examination there is evidence of massive splenomegaly. Bloods revealed a low haemoglobin and neutropenia. A blood film reveals leukoerythroblastosis with tear drop poikilocytosis and megakaryocyte fragments. What is the most likely diagnosis?

**1- Myelofibrosis**

2- Chronic myeloid leukaemia

3- Myelodysplasia

4- Non Hodgkins Lymphoma

5- Acute lymphoblastic leukaemia

Q2549. Hereditary nonpolyposis colorectal cancer leads to an increased risk of colorectal carcinoma. Which other cancer are patients particularly at risk of?

1- Gastric cancer

2- Prostatic cancer

**3- Endometrial cancer**

4- Hepatocellular cancer

5- Ovarian cancer

Q2550. Which of the following is an indication for the use of irradiated blood products?

1- Previous multiple transfusion

2- Splenectomy

3- Emergency O negative blood

4- Myeloma on no treatment

**5- Hodgkins Lymphoma undergoing treatment**

Q2551. A 36 year old female has recently underwent a bone marrow transplant for acute myeloid leukaemia. She requires a blood transfusion. The blood is crossmatched. Which of the following must you also ensure?

1- Hepatitis B negative

2- CMV negative, no requirement for irradiation

3- Irradiated blood

4- HIV

**5- CMV negative and blood irradiated**

Q2552. What is the purpose of irradiating blood products?

**1- Inactivation of residual donor lymphocytes**

2- Reduce bacterial contamination

3- Inactivation of host lymphocytes

4- Depletion of number of donor lymphocytes

5- Apoptose CMV virus

Q2553. A 68 year old female with CLL presents with tiredness and shortness of breath on exertion which has been worsening over the last month. Her bloods reveal a haemoglobin of 7.0 g/dL, low normal platelets, elevated white cell count and an elevated bilirubin although her other LFTs are normal. Which investigation will provide the likely cause of the anaemia?

**1- Direct antiglobulin test**

2- Bone marrow biopsy

3- Elevated LDH

4- Haemosiderinuria

5- Nil required as secondary to disease

Q2554. What is the chance of a child being a carrier of cystic fibrosis if both his mother and father are carriers?

**1- 50%**

2- 66%

3- 0%

4- 100%

5- 25%

Q2555. How is Peutz Jeghers syndrome inherited?

1- X linked recessive

2- X linked dominant

**3- Autosomal dominant**

4- Mitochondrial

5- Autosomal recessive

Q2556. Which of the following is an example of polygenic inheritance?

1- Huntington's Disease

2- Cystic Fibrosis

3- Haemophilia A

4- Down's Syndrome

**5- Ankylosing Spondylitis**

Q2557. A patient with type 2 diabetes mellitus requires a CT angiography with contrast. His bloods reveal a normal renal function. Which of the following is required to try to prevent the development of contrast nephropathy?

1- IV sodium bicarbonate

2- IV sodium bicarbonate and IV NaCl

3- Nil required

4- Adequate hydration with IV dextrose

**5- Adequate hydration with IV 0.9% NaCl**

Q2558. The mutation of which of the following can lead to nephrogenic diabetes insipidus?

1- Insulin receptor

2- Glomerular basement membrane protein

**3- Aquaporin 2**

4- Collagen type IV

5- Aquaporin 1

Q2559. A 37 year old presents with fatigue, weight loss and nausea. He describes episodes of haemoptysis and has noticed his urine being very dark. On examination he has bibasal crepitations. His bloods reveal an iron deficiency anaemia and renal impairment and urinalysis reveals proteinuria and microscopic haematuria. Which autoantibody would you expect to find?

1- Rheumatoid factor

2- pANCA

**3- Anti GBM**

4- cANCA

5- Anti dsDNA

Q2560. A patient with Goodpastures syndrome is found to have an elevated diffusion capacity. What is the likely cause of this elevation?

1- Pulmonary embolus

2- Asthma

3- COPD

**4- Pulmonary Haemorrhage**

5- Smoking

Q2561. A 25 year old female presents with dry cough, fever and shortness of breath. She has also been suffering from night sweats and malaise. She has also noticed bruise like lesions on her shins. She is found to have an elevated ESR and a CXR reveals bilateral hilar lymphadenopathy, a pleural effusion and evidence of reticulo nodular shadowing in the upper lobes. What is the most likely diagnosis?

**1- Sarcoidosis**

2- Lymphoma

3- Lung cancer

4- Tuberculosis

5- Rheumatoid arthritis

Q2562. A 48 year old gentleman presents with extreme tiredness and difficulty concentrating. His wifes states he is irritable and he is a very loud snorer and occasionally chokes during the night. His libido is low, he is suffering from headaches and he has been falling asleep during the day as he feels very unrefreshed after his sleep. His BMI is 35. Polysomnography reveals a apnoea/hyponoea index of 10. His ABGs do not reveal significant hypoxia. Which of the following is useful initially in the management?

1- CPAP

2- ABGs

3- LTOT

4- BiPAP

**5- Weight loss and lifestyle advice**

Q2563. Which of the following implies previous immunisation to hepatitis B?

1- Anti HbcAg

**2- anti Hbs**

3- HbeAg

4- HbsAg

5- anti Hbc

Q2564. A 42 year old male with Acute Myeloid Leukamia who has recently underwent chemotherapy is found to be pyrexial. He feels generally unwell. He is commenced on IV gentamicin and tazocin however 2 days later he is still unwell and pyrexial. Which of the following should you then consider commencing?

1- IV fluconazole

2- Add IV meropenem

**3- Amphotericin B**

4- Nil

5- Add IV vancomycin

Q2565. A 22 year old male has just returned from Africa and presents with painful inguinal lymphadenopathy. He states he had noticed a painless ulcer on his penis about one week ago and then he noticed very tender lumps in his groins. The lymph nodes on examination are tender and fixed and the skin overlying is a dusky erythematous colour. Some of them are fluctuant. What is the most likely diagnosis?

1- Chancroid

2- Genital warts

3- Herpes simplex virus

**4- Lymphogranuloma venereum**

5- Syphilis

Q2566. Following a splenectomy which one of the following is the patient at risk of infection with?

1- Gonorrhoea

2- Staphylococcus aureus

3- CMV

4- Influenza A

**5- Streptococcus pneumoniae**

Q2567. What anitbiotic should be used if a patient presents following a dog bite?

**1- Co amoxiclav**

2- Flucloxacillin

3- Nil

4- Metronidazole

5- Amoxicillin

Q2568. A 25 year old gentleman has recently returned from travelling around Asia. He presents to his GP as he is feeling unwell with a headache, cough and myalgia. He has also noticed a fever which comes and goes every couple of days. On examination there is evidence of hepatosplenomegaly, fever and jaundice. What is the most likely diagnosis?

**1- Malaria secondary to plasmodium ovale**

2- Malaria secondary to plasmodium falciparum

3- Dengue fever

4- Malaria secondary to plasmodium malariae

5- Typhoid

Q2569. A patient presents with genital warts wishing treatment. On examination there is several small warts on the penis and under the foreskin. These are soft and accessible. What treatment would you recommend?

1- Podophyllotoxin 0.5% liquid

2- Cryotherapy

**3- Podophyllotoxin 0.15% cream**

4- Imiquimod

5- Topical aciclovir

Q2570. A 50 year old gentleman with a history of type 2 Diabetes Mellitus and hypertension and who is obese presents with a painful, swollen knee. An X-ray reveals chondrocalcinosis and a joint aspiration is performed and it reveals on microscopy numerous neutrophils and rhomboid-shaped crystals, which are weakly positive birefringent. Which of the following is the most likely diagnosis?

1- Gout

**2- Pseudogout**

3- Rheumatoid Arthritis

4- Reactive Arthritis

5- Septic arthritis

Q2571. A 70 year old female presents with shoulder and pelvic girdle pain. She is stiff for approximately 2 hours in the morning. She is feeling generally unwell. She has painful active movements of the shoulders and hips. Her ESR is markedly elevated whilst her CRP is normal. What is the most likely diagnosis?

1- Osteoarthritis

2- Rheumatoid arthritis

3- Osteomalacia

4- Polymyositis

**5- Polymyalgia rheumatica**

Q2572. A 28 year old known to have Raynauds phenomenon presents with painful, tight and swollen tips of fingers and a tight mouth. Anticentromere antibodies are positive. What is the most likely diagnosis?

1- Rheumatoid Arthritis

2- Diffuse cutaneous systemic sclerosis

3- Psoriatic Arthritis

4- Systemic lupus erythematosus

**5- Limited cutaneous systemic sclerosis**

Q2573. What is the most common finding in blood testing for those with SLE?

1- Anticardiolipin antibody

2- ANA

3- Anti double-stranded DNA

4- Rheumatoid factor

**5- Low complement levels**

Q2574. A 70 year old male presents with back pain. He has recently had an aortic valve replacement. He is unwell and pyrexial and he has tenderness over L2 and restricted movement due to this back pain. His inflammatory markers are elevated. There is no evidence of focal neurology and nil else of note on examination. What is the most likely diagnosis?

1- Cauda Equina Syndrome

**2- Discitis**

3- Lumbar disc prolapse

4- Spinal Abscess

5- Infective Endocarditis

Q2575. Which of the following if deficient is associated with SLE?

1- C9

2- C3

3- C5

**4- C1q**

5- C7

Q2576. A 54 year old gentleman has been renovating his home. He now presents with a painful elbow that radiates down the back of his forearm. He states the pain is worse on movement and he has been building DIY furniture but now finds it difficult to use a screwdriver or even hold a cup of coffee, due to the pain. On examination pain is worsened on resisted wrist extension. What is the most likely diagnosis?

1- Cervical radiculopathy

2- De Quervain's tendonitis

3- Medial Epicondylitis

4- Ulnar nerve palsy

**5- Lateral Epicondylitis**

Q2577. A 60 year old female presents with sudden onset left hip pain which she is unable to weight bear on. On examination there is no obvious abnormality but there is very limited flexion, internal and external rotation. An Xray reveals collapse of the femoral head and joint sclerosis. Bloods are normal. She has recently underwent treatment for CML. What is the most likely diagnosis?

1- Rheumatoid arthritis

2- Osteoarthritis

**3- Avascular necrosis**

4- DVT

5- Bony metastases

Q2578. You are asked to study the effect of a new drug compared to the current best treatment on two patient samples. Which test would determine that the mean result is different in both groups?

1- Mann Whitney U test

**2- Unpaired t test**

3- Pearson product moment correlation

4- Spearmans rank correlation coefficient

5- Paired t test

Q2579. The 5 year mortality of a disease is 50%. A new treatment is developed and the relative risk for patients on this treatment is 0.9. How many patients need to use the treatment for one life to be saved?

1- 100

2- 40

3- 5

**4- 20**

5- 45

Q2580. A 28 year old female presents with a history of diarrhoea for numerous years. She has been off work on several occasions due to this. On examination this is unremarkable and her bloods are normal except for a low potassium. She is brought into hospital for assessment and is asked to keep a stool chart which shows no evidence of diarrhoea. A colonoscopy is performed and this reveals brown discolouration of the mucosa and a biopsy reveals pigment laden macrophages. What is the most likely diagnosis?

1- Irritable Bowel Syndrome

2- Coeliac Disease

3- Ulcerative Colitis

**4- Laxative abuse**

5- Microscopic colitis

Q2581. A 19 year old presents with a 2 month history of bloody diarrhoea, urgency, tenesmus and crampy abdominal pain. A colonoscopy is performed and reveals superficial ulceration with a friable mucosa and biopsy shows goblet cell depletion and crypt abscesses. What is the most likely diagnosis?

1- Coeliac Disease

**2- Ulcerative colitis**

3- Whipples disease

4- Crohn's Disease

5- Gastroenteritis

Q2582. What therapy can be utilised, following a variceal bleed to reduce risk of further bleeding?

1- Albumin

2- Terlipressin

3- Amlodipine

4- Nil

**5- Propanolol or carvedilol**

Q2583. What is the most useful indicator of prognosis following a paracetamol overdose?

1- Renal function

2- Liver transaminases

**3- Prothrombin time**

4- Bilirubin

5- APTT

Q2584. A 35 year old has H. Pylori eradication. Which of the following investigations would you organise to confirm eradication?

1- Repeat endoscopy and biopsy for rapid urease test

2- Serology

3- Stool test

4- Repeat endoscopy and biopsy for culture

**5- 13c breath test**

Q2585. A 2 year old child with Down's Syndrome is brought to A+E with constipation. He has not moved his bowels for 2 weeks. He was noted to have delayed passage of meconium at birth. On examination there is evidence of abdominal distension. What is the most likely cause of his constipation?

1- Intussusception

2- Hypothyroidism

3- Cystic Fibrosis

**4- Hirschsprung's Disease**

5- Functional

Q2586. A patient with malnourishment develops cardiac failure after being commenced on total parenteral nutrition. What treatment should have been given?

1- Magnesium Replacement

**2- Phosphate Replacement**

3- Zinc Replacement

4- Potassium Replacement

5- Sodium Replacement

Q2587. A 54 year old male has been referred as there has been a change in his personality over the last few years. He has been sexually inappropriate, forgetful and unable to plan. There is nil of note on examination. What is the most likely diagnosis?

1- Normal pressure hydrocephalus

**2- Frontotemporal dementia**

3- Alzheimers disease

4- Frontal Tumour

5- New Variant CJD

Q2588. A 17 year old presents with generalised headache, malaise and confusion. She is pyrexial and dysphasic although there is no other focal neurology or any other examination findings. A CT brain scan shows hypodensity in both temporal lobes. Which treatment should be initiated early for effective treatment?

1- IV fluids and steroids

2- IV steroids

**3- Intravenous fluids and IV aciclovir**

4- IV fluids and antibiotics

5- IV fluids, IV aciclovir and anticonvulsants

Q2589. An 79 year old female presents to her GP with falls. On examination there is evidence of a resting tremor in her hands, right worse than left. She has difficulty initiating movement and you notice reduced facial expression. Her tone is increased in her arms. She has no PMH of note and is only on ramipril for hypertension. Which of the following is the most likely diagnosis?

**1- Idiopathic Parkinsons disease**

2- Multi System Atrophy

3- Stroke

4- Benign essential tremor

5- Lewy body Disease

Q2590. If there is evidence of a right superior homonymous quadrantanopia, where is the likely site of the lesion? What blood vessel if thrombosed would lead to a Right sided Horners Syndrome and intention tremor and right sided facial loss of pain and temperature sensation and left sided body pain and temperature loss and weakness? ##Right posterior inferior cerebellar artery ##Right posterior Cerebral artery ##Vertebral artery ##Left middle cerebral artery ##Right anterior cerebral artery

1- Right optic nerve

2- Optic chiasm

**3- Left temporal lobe**

4- Left parietal lobe

5- Left occipital lobe

Q2591. A 22 year old patient is brought to A+E. She was complaining of a headache, malaise, fever and nausea and vomiting one day previously and then suddenly dropped her conscious level. She is dysphasic and has a right hemiparesis. She then develops a focal seizure. A CT shows abnormalities in temporal lobes, with hypodense areas being present. A lumbar puncture is performed and reveals a slightly high protein, normal glucose and raised mononuclear cell levels. What is the most likely diagnosis?

**1- Herpes Simplex Encephalitis**

2- Intracranial abscess

3- Meningitis

4- Intracranial haemorrhage

5- Intracranial tumour

Q2592. Which of the following is most suggestive of idiopathic Parkinson's disease rather than a Parkinsonism plus syndrome?

1- Early onset postural hypotension

2- Ocular signs

**3- Asymmetrical Symptoms**

4- Bradykinesia

5- Early onset dementia

Q2593. A 73 year old female is brought to A+E after being found unconscious. On examination she has a GCS of 3 with evidence of quadraplegia, facial weakness, bilateral conjugate gaze paralysis and pin point pupils. What is the most likely diagnosis?

1- Midbrain infarct

**2- Pontine Haemorrhage**

3- Haemorrhage within internal capsule

4- Cerebral haemorrhage

5- Pontine infarct

Q2594. A 35 year old gentleman, previously well, collapses and begins to shake violently. His eyes are closed and his head is shaking from side to side. When a witness checks on him, his arms begin to flail more violently. He then gradually stops shaking. His eyes open and he is unaware of what happens but has not sustained any injury and has not been incontinent. What is the most likely diagnosis?

1- Vasovagal episode

**2- Psychogenic non-epileptic seizure**

3- Cataplexy

4- Stroke

5- Epileptic seizure

Q2595. A 64 year old gentleman presents with lower back pain following a recent fall. He has a history of osteoarthritis. He is also complaining of some weakness in his leg. On examination there is weakness of dorsi flexion of the ankle and extension of the big toe. Knee and ankle jerks are present. He also has reduced sensation over the lateral calf and dorsum of the foot. Which of the following is the predominant root involved?

**1- L5**

2- S2-S4

3- S1

4- L3

5- L4

Q2596. Which of the following is thought to lead to Alzheimer's disease?

1- Huntingtin deposition

2- AA amyloid forming neurofibrillary tangles

**3- Tau protein forming neurofibrillary tangles**

4- Alpha synuclein in substantia nigra

5- AL amyloid forming neurofibrillary tangles

Q2597. Which of the following is reverse transcriptase responsible for?

1- Transcribes single stranded RNA to double stranded DNA

2- Involved in mismatch repair

3- Transcribes single stranded DNA to single stranded RNA

**4- Transcribes single stranded RNA to single stranded DNA**

5- Breakdown of double helix

Q2598. A 50 year old male who is a heavy smoker presents with velvety, hyperpigmented skin in his axillae. He has also noticed he has lost several stones in weight and has anorexia. What is the most likely diagnosis?

1- Pseudoxanthoma Elasticum

2- Tinea Cruris

3- Chloasma

4- Necrobiosis Lipoidica

**5- Acanthosis nigricans**

Q2599. A 22 year old female with some bowel habit change presents with a rash on her buttocks, elbows and knees. It is erythematous with some blistering and it is intensely itchy. A skin biopsy reveals sub-epidermal blister formation and immunofluorescence reveals IgA present within the papillae. What is the most likely diagnosis?

**1- Dermatitis Herpertiformis**

2- Eczema

3- Pemphigus vulgaris

4- Herpes virus

5- Bullous pemphigoid

Q2600. A 23 year old presents with yellow, brownish depressed patches on her shin. It began as a reddish brown colour and new patches appear if she bumps her leg. She is also complaining of weight loss, polydipsia and polyuria. Which test should be performed?

1- Skin Biopsy

2- Cholesterol level

**3- Fasting glucose**

4- Glucose tolerance test

5- Auto antibodies

Q2601. A 50 year old male presents with weight gain mainly around the face and trunk. He has also noticed his arms and legs feeling weak especially when trying to get up from a seat. He has noticed he is easily bruising and there is evidence of striae. He is found to be hypertensive and hypokalaemic. Which investigation should be performed initially?

1- ACTH measurement

**2- Low dose dexamethasone suppression test**

3- High dose dexamethasone

4- CT Head and abdomen

5- Urinary catecholamines

Q2602. A 38 year old female has difficult to control hypertension. She has intermittently suffered from headaches and anxiety. She is due to undergo abdominal surgery. Given the underlying diagnosis, which treatment should be performed before her surgery?

**1- Introduction of an irreversible alpha blocker**

2- IV fluid administration

3- Nil required

4- Increase dosage of antihypertensives

5- Introduction of a beta blocker

Q2603. A 33 year old woman presents with amenorrhoea and has noticed reduced axillary and pubic hair. She has also noticed a change in her vision. On examination she has a bitemporal hemianopia. Her prolactin levels are over 2000mg/L. What is the most likely diagnosis?

1- Diabetes

2- Microprolactinoma

**3- Macroprolactinoma**

4- PCOS

5- Acromegaly

Q2604. A patient who is ICU is found to have a slightly low TSH, low T3 and normal T4. She has no history of thyroid disease. What is the most likely cause?

1- Hypothyroidism

**2- Euthyroid sick syndrome**

3- Hyperparathyroidism

4- Subclinical hyperthyroidism

5- Pituitary Hypothyroidism

Q2605. A 73 year old female who is otherwise fit and well and is on no other medications, presents with bone pain and has had a recent fracture. She is found to have a low calcium, low phosphate and high alkaline phosphatase. What is the most likely cause?

1- Vitamin D deficiency secondary to malabsorption

2- Renal disease

3- Paget's disease

**4- Vitamin D deficiency due to lack of sunlight**

5- Myeloma

Q2606. A 27 year old gentleman presents with recurrent episodes of sweating, palpitations, dizziness and weakness. He has noticed them occurring particularly in the early morning. During one of these episodes his BM is found to be 2.9. Further investigations reveals low glucose level with an elevated c peptide and insulin level. What is the most likely diagnosis?

**1- Insulinoma**

2- Self administration of insulin

3- Glucagonoma

4- Self administration of metformin

5- MEN type 1

Q2607. A 27 year old gentleman presents with recurrent episodes of sweating, palpitations, dizziness and weakness. He has noticed them occurring particularly in the early morning. During one of these episodes his BM is found to be 2.9. Which of the following investigation will be most useful in confirming the diagnosis?

**1- Fasting (48 hours or 72 hour s) glucose, insulin, proinsulin and c peptide levels**

2- Fasting glucose

3- C peptide level

4- Random glucose, insulin, proinsulin and c peptide levels

5- Glucose tolerance test

Q2608. Which of the following hormonal changes may lead to a low libido and erectile dysfunction?

1- None of these

2- Low progesterone

3- Low oestradiol

4- Low prolactin levels

**5- Low Dehydroepiandrosterone**

Q2609. A 65 year old gentleman attends the pre operative clinic. He is awaiting a knee replacement as he has severe osteoarthritis of his knee and hip. He has had a previous myocardial infarction and over the last few months has complained of what sounds like angina pain. Which of the following is useful initially in determining if there is evidence of myocardial ischaemia?

1- Echocardiogram

2- ECG

3- Exercise Tolerance Test

**4- Myocardial perfusion scan**

5- Coronary angiography

Q2610. A patient has just suffered a STEMI and is now found to be in complete heart block. What vessel is likely to have been involved?

**1- Right coronary artery**

2- Left marginal artery

3- Left anterior descending artery

4- Left circumflex artery

5- Left coronary artery

Q2611. A 26 year old patient is found incidentally to have a harsh pansystolic murmur at the lower left sternal edge. He is asymptomatic and both CXR and ECG are normal. What is the most likely diagnosis?

1- Atrial septal defect

**2- Ventricular septal defect**

3- Mitral regurgitation

4- Patent ductus arteriosus

5- Aortic atenosis

Q2612. A patient is diagnosed with infective endocarditis. Which of the following requires urgent surgical intervention?

1- Shortened PR interval

**2- Prolonged PR interval**

3- Systolic murmur

4- Mobile vegetation

5- Pyrexia and raised ESR despite antibiotic therapy

Q2613. A 45 year old female presented to her GP with a few weeks history of headache. She was found to have a blood pressure of 215/110. She states she is otherwise feeling well with no associated features and is generally in good health and is on no regular medications. There is no worrying features regarding her headache. She is a smoker and is overweight. There is no family history of any renal disease. On examination she has a BMI of 35 although there was no evidence of striae. Her heart rate was 92 bpm and heart sounds normal.

1- Phaeochromocytoma

2- Glomerulonephritis

3- Malignant hypertension

4- Cushing's syndrome

**5- Essential Hypertension**

Q2614. A 60 year old woman has a history of PAF for which she is on warfarin and amiodarone, hypercholesterolaemia for which she takes simvastatin and hypertension on bendroflumethiazide and ramipril. She is suffering from recurrent UTIs and has been advised to drink cranberry juice. What is cranberry juice likely to interact with?

1- Amiodarone

2- Simvastatin

**3- Warfarin**

4- Bendroflumethiazide

5- Ramipril

Q2615. Which of the following antibodies present in the maternal circulation may lead to congenital heart block?

1- Anti Jo1

**2- Anti Ro**

3- Anti dsDNA

4- Rheumatoid factor

5- ANCA

Q2616. Which of the following gives the strongest indication that a suicide attempt was serious and not a cry for help?

1- Phoned the samaritans during the act

**2- Timed so that intervention is highly unlikely and takes measures to prevent discovery or intervention**

3- Did not make any final plans such as making a will or leaving a note

4- Drug addiction

5- Taking excessive amounts of paracetamol as the method

Q2617. A 31 year old man is brought to see you by the police. He is unable to recall his name, address or any personal details. He is not agitated but is confused as to why he cannot recall the information. Recall tests show that he can form new memories. The next morning, he remembers who he is and that his company had just went bankrupt. He is low in mood but has no other problems. What is the diagnosis?

1- Catatonic state

2- Major depression

3- Vascular dementia

4- Bipolar affective disorder

**5- Dissociative amnesia**

Q2618. A mother is concerned about her 6 year old son. He causes a lot of problems with his siblings, does not concentrate, is liable to emotional outbursts and teachers describe him as unruly. He has no medical problems and apart from being very active, his examination is otherwise normal. What is the most likely problem?

**1- Attention deficit hyperactivity disorder**

2- Aspergers

3- Early onset bipolar

4- Tourettes syndrome

5- Learning difficulties

Q2619. Which of the subtypes of schizophrenia is characterised by prominent thought disorder, abnormal behaviour and a flat or inappropriate affect?

1- Undifferentiated schizophrenia

2- Paranoid schizophrenia

**3- Hebephrenic or disorganised schizophrenia**

4- Residual schizophrenia

5- Catatonic schizophrenia

Q2620. Which of the following could be used to distinguish dementia from severe depression

**1- Grasp reflex**

2- Weight gain

3- Visual disturbance

4- Weight loss

5- Testosterone level testing

Q2621. In hypothyroidism, which biochemical test is most useful in the diagnosis and monitoring of treatment?

1- FT3

**2- TSH**

3- Thyroglobulin

4- Thyroid auto antibodies

5- FT4

Q2622. The presence of which feature suggests proliferative diabetic retinopathy?

1- Microaneurysms

2- Cotton wool spots

**3- Neovascularisation**

4- Hard exudates and blot haemorrhages

5- Soft exudates

Q2623. A patient is brought to A and E drowsy and unwell. He is known to have COPD however appears septic in addition to this. Blood gases revealed elevated hydrogen ions and elevated PCO2 and a low O2, bicarbonate and pH. How do you interpret these results?

1- Respiratory acidosis

2- Respiratory alkalosis with metabolic compensation

**3- Mixed metabolic and respiratory acidosis**

4- Respiratory acidosis with metabolic compensation

5- Metabolic acidosis

Q2624. A patient complains that her left foot drags and she is often catching it on steps or kerbs. She has a high stepping gair and loss of dorsiflexion on examination. There is reduced sensation over the foot and shin. What is the likely cause?

1- Femoral nerve injury

**2- Common peroneal nerve injury**

3- Stroke

4- Tibial nerve injury

5- L5 nerve lesion

Q2625. An 80 year old man with a history of stroke presents with a lower homonymous quadrantanopia affecting the temporal side of the right visual field and the nasal side of the left visual field. Where is the lesion?

1- Optic chiasm

2- Right parietal lobe

**3- Left parietal lobe**

4- Optic nerve

5- Left Occipital lobe

Q2626. Which organ is anterior to the left kidney and is not separated by visceral peritoneum?

1- Left adrenal gland

2- Left psoas muscle

3- Large intestine

**4- Tail of the pancreas**

5- Spleen

Q2627. Which area of the colon is most susceptible to mesenteric ischaemia?

1- Hepatic flexure

2- Sigmoid colon

3- Caecum

4- Rectum

**5- Splenic flexure**

Q2628. A patient with previous history of cold sores presents with a painful right eye. On examination there is evidence of conjuntival injection in the right upper quadrant and this area is exquisitely tender. Fluorescein dye is applied and reveals a dendritic lesion. What is the most likely diagnosis?

1- Scleritis

2- Bacterial ulcer

**3- Herpes simplex ulcer**

4- Episcleritis

5- Foreign body

Q2629. A 30 year old presents with what sounds like tension headaches to her GP. On examination you notice that she has one pupil dilated more than the other. This does not contrict to light however does constrict to accommodation and the rest of the eye examination is normal. She also has loss of her ankle reflexes. What is the most likely diagnosis?

1- Space occupying lesion

**2- Holmes-Adie pupil**

3- Argyll Robertson pupil

4- Horners syndrome

5- IIIrd cranial nerve palsy

Q2630. If a patient presents with a homonymous hemianopia where is the likely site of the lesion?

1- Optic nerve

**2- Optic Radiation**

3- Temporal lobe

4- Optic chiasm

5- Parietal lobe

Q2631. What type of myocardial infarct has occurred if there is ST elevation in leads II, III and aVF?

1- Lateral STEMI

2- Inferior NSTEMI

**3- Inferior STEMI**

4- Anterolateral STEMI

5- Posterior Infarct

Q2632. A young lady with normal breast development and no obvious abnormalities is investigated for amenorrhoea. Her karyotype reveals 46XY. What is the diagnosis?

**1- Androgen insensitivity syndrome**

2- XY gonadal dysgenesis

3- Smith Lemli Opitz syndrome

4- Klinefelters syndrome

5- Turner syndrome

Q2633. Which of the following is a mechanism by which Brain Natiuretic Peptide causes it's effects in the body?

**1- Inhibits renin release**

2- Inhibits angiotensin converting enzyme

3- Stimulates renin release

4- Angiotensin receptor blocker

5- Vasoconstriction

Q2634. How does tolterodine lead to an improvement in the symptoms of detrusor instability?

1- Beta agonist

**2- Antimuscarinic effect**

3- Beta receptor blocker

4- Alpha receptor blocker

5- Anti histamine effect

Q2635. In angina, which of the following accounts for some of the therapeutic effect of beta blockers?

1- Coronary artery vasodilatation

2- Peripheral vasoconstriction

3- Increased heart rate

4- Peripheral vasodilatation

**5- Decreased heart rate**

Q2636. Which of the following should be avoided if a patient is taking simvastatin?

1- Orange Juice

2- Cranberry juice

3- Amoxicillin

4- Co amoxiclav

**5- Grapefruit Juice**

Q2637. What is the mechanism of action of Ciclosporin?

**1- Inhibits calcineurin reducing Interleukin-2 levels**

2- Anti -TNF-alpha

3- Binds to T cell receptor

4- Inhibits calcineurin increasing Interleukin-2 levels

5- Inhibits calcineurin reducing Interleukin-10 levels

Q2638. Which of the following drug is not associated with a survival benefit in congestive cardiac failure?

1- Ramipril

2- Nitrates and hydralazine

**3- Digoxin**

4- Spironolactone

5- Carvedilol

Q2639. What is the mechanism of action of bendroflumethiazide?

1- Acts on loop of henle and leads to increased sodium, chloride and water excretion

**2- Acts on early distal tubule and leads to increased sodium, chloride and water excretion**

3- Acts on early distal tubule and leads to increased sodium, chloride and water reabsorption

4- Inhibits aldosterone

5- Acts on proximal tubule and leads to increased sodium, chloride and water excretion

Q2640. A 68 year old gentleman is being investigated for evidence of an M paraprotein band, raised ESR and weight loss. He suddenly develops visual disturbance, renal failure and headache. How should this patient be managed?

1- Prednisolone

2- Chlorambucil

3- Rituximab

4- Urgent CT head

**5- Urgent plasmapheresis**

Q2641. A patient with acute myeloid leukaemia presents with headaches. She has never suffered from headaches before. She has now noticed a left sided facial drop and now is drowsy. Out of the following what is a likely cause?

1- Migraine

2- Radiotherapy

**3- Hyperleukocytosis**

4- Meningeal infiltration

5- Anaemia

Q2642. A patient with chronic lymphocytic leukaemia presents for check up. Over the last few months she has noticed lumps in her neck and axilla which have grown rapidly. She has lost weight and complains of being feverish. Which investigation will confirm the most likely diagnosis?

1- Blood cultures

2- Bone marrow biopsy

3- Coombs test

**4- Lymph node biopsy**

5- LDH level

Q2643. A 35 year old female presents with her second DVT. She has also had four miscarriages and has livedo reticularis. She has no other past medical history and is not on any regular medications. Which of the following will be useful in confirming the suspected diagnosis?

1- Protein C level

2- Protein S level

**3- Anticardiolipin antibodies**

4- Factor V leiden mutation

5- Coagulation profile

Q2644. Which thyroid cancer is associated with MEN syndrome?

1- Lymphoma

2- Anaplastic

3- Papillary

4- Follicular

**5- Medullary**

Q2645. A lady had a son and brother that have Duchennes muscular dystrophy. Which of the following is she at higher risk of?

1- Learning difficulty

2- Cerebral infarction

**3- Cardiomyopathy**

4- Epilepsy

5- Osteoarthritis

Q2646. Which of the following is due to a defect in type IV collagen in the glomerular basement membrane?

**1- Alport's Syndrome**

2- Liddles syndrome

3- Goodpastures syndrome

4- Bartters syndrome

5- Bergers Syndrome

Q2647. A 45 year old female is admitted with cellulitus requiring IV antibiotics. She is commenced on IV benzylpenicillin and IV flucloxacillin. She is commenced on Diclofenac for pain. After 3 days she she develops pyrexia, arthralgia, maculopapular rash, haematuria and oliguria. Bloods reveal acute renal failure and eosinophilia. A renal biopsy reveals interstitial cellular infiltrate with eosinophils present and variable tubular necrosis. What is the most likely diagnosis?

1- Glomerulonephritis

2- Chronic tubulointerstitial nephritis

3- Anaphylaxis

**4- Penicillin induced acute tubulointerstitial nephritis**

5- NSAID induced acute tubulointerstitial nephritis

Q2648. A patient is found to be in acute renal failure with a potassium of 6.8mmol/L. Her ECG shows tall tented T waves. She is commenced on cardiac monitoring and is given insulin dextrose infusion and salbutamol nebulisers. Which other treatment should be given?

1- Sodium bicarbonate

2- Repeat Potassium

3- Calcium resonium

4- Further insulin dextrose

**5- Calcium Gluconate**

Q2649. Which investigation should be organised for the diagnosis of vesicoureteric reflux?

**1- Micturating cystourethrography**

2- Excretion urography

3- Retrograde pyelography

4- CT abdomen

5- Abdominal ultrasound

Q2650. A 9 year old presents unwell with a mild fever. He had a cold in the preceding few days and has now developed a purpuric rash on his buttocks and legs. He is also complaining of joint pain. A urinalysis reveals haematuria and proteinuria and bloods reveal acute renal failure and eosinophilia. What is the likely pathological basis of the renal disease, given the likely diagnosis?

1- Loss of podocytes

**2- Glomerular IgA deposition and mesangial proliferation**

3- Glomerulo sclerosis

4- Glomerular IgG deposition and mesangial proliferation

5- Glomerular complement deposition and mesangial proliferation

Q2651. A 24 year old is found to have chronic renal failure. There is a history of numerous UTIs as a child. On ultrasound there is evidence of renal scarring. She is hypertensive. What is the most likely diagnosis?

**1- Reflux Nephropathy**

2- Pyelonephritis

3- Posterior urethral valve

4- Polycystic kidney disease

5- Hypertensive renal disease

Q2652. When there is evidence of a paraprotein what is most suggestive of Waldenstroms macroglobulinaemia rather than multiple Myeloma?

1- Bence Jones Protein

2- Hyperviscosity

**3- Normal IgG and IgA levels**

4- Anaemia

5- Renal failure

Q2653. What is the main contributory factor to the immunodeficiency seen in chronic lymphocytic leukaemia?

1- Interleukin 10 activity

2- Neutropenia

3- T cell deficiency

4- Lymphopenia

**5- Hypogammaglobulinaemia**

Q2654. A 24 year old with latex is brought to A+E with anaphylactic shock. Which fruit is associated with latex allergy?

**1- Banana**

2- Orange

3- Grapefruit

4- Pear

5- Apple

Q2655. A 14 year old girl with type 1 Diabetes Mellitus presents abdominal bloating, steatorrheoa, fatigue and weight loss. What serological investigation would you perform?

1- Immunoglobulins

**2- IgA antitransglutaminase**

3- IgA antiendomysial antibodies

4- IgG antiendomysial antibodies

5- Antigliadin Antibodies

Q2656. A 52 year old male who keeps pigeons presents to his GP. He states for some months he has had a productive cough, shortness of breath on exertion, fatigue, anorexia and has lost 2 stones in weight. On examination there is bibasal inspiratory crackles. A CXR reveals reticulonodular shadowing. What is the most likely diagnosis?

1- Sarcoidosis

2- ABPA

3- Cardiac failure

4- Cryptogenic allergic alveolitis

**5- Extrinsic allergic alveolitis**

Q2657. In bronchiectasis which part of the airway is affected?

1- Parenchyma

2- Trachea

3- Alveoli

4- Terminal Bronchioles

**5- Bronchi**

Q2658. A 28 year old farm worker presents with a dry cough and fever. For the last 2 weeks he has been suffering from a flu like illness with headache, myalgia and fatigue. Bloods reveal deranged LFTs and hyponatraemia. Which of the following is the most likely diagnosis?

1- Chlamydia psittaci pneumonia

2- Influenza

3- Viral pneumonia

**4- Q fever**

5- Streptococcus pneumonia

Q2659. A 68 year old male presents with increasing shortness of breath and chest pain. On examination there is reduced air entry on the left to the mid zone and dullness to percussion. A Chest Xray reveals a left side pleural effusion. There is history of previous asbestos exposure. Which investigation will be most useful in providing the definitive diagnosis?

1- CT Chest

2- Pleural Ultrasound

**3- Pleural Biopsy**

4- Chest drain

5- Pleural Tap and cytological analysis

Q2660. Which of the following advice would you give to a young patient who had suffered a spontaneous pneumothorax?

1- Not to fly for one year

2- Not to play sports

3- Avoid sky diving for one year

4- Not allowed to scuba dive for 2 years

**5- Avoid scuba diving for life**

Q2661. A 28 year old gentleman has a long history of rhinitis and asthma. However he now presents with haemoptysis. He has also noticed a rash and severe pain which he states feels like sciatica. He is feeling generally unwell with fatigue, myalgia and weight loss. On examination he is hypertensive and there is a purpuric rash. Bloods reveal acute renal failure and elevated inflammatory markers and eosinophil count. What is the most likely diagnosis?

1- Polyarteritis Nodosa

**2- Churg Strauss Syndrome**

3- Wegeners Granulomatosis

4- SLE

5- Malignancy

Q2662. Which of the following is not a feature of ARDS?

1- Protein rich fluid in alveolar space

2- Bilateral diffuse infiltrates on chest xray

3- Refractory hypoxia

4- No evidence of cardiac failure

**5- Protein low fluid in alveolar space**

Q2663. A patient is being treated with IV vancomycin and gentamicin for prosthetic valve infective endocarditis. He is not improving and MRSA is suspected. Which of the following is a reasonable addition to the current management?

**1- Rifampicin**

2- Flucloxacillin

3- Ciprofloxacin

4- Fluconazole

5- Doxycycline

Q2664. A 35 year old gentleman with AIDs presents with confusion and altered mental status. A CT head is performed. Which of following is more suggestive of toxoplasmosis rather than cryptococcosis as the underlying cause?

**1- Multiple ring enhancing lesions**

2- Diffuse atrophy

3- Hydrocephalus

4- Solitary non enhancing lesion

5- Solitary ring enhancing lesion

Q2665. A 42 year old male was eating a meal at a restaurant when he became unwell. He had a Tuna fish steak, which tasted bitter and peppery, and about 20 minutes after consuming this he felt flushed, nauseous, and anxious with a headache and palpitations. He felt a tingling sensation around his mouth and developed a diffuse, macular, blanching rash over his upper chest and neck. Which of the following is the most likely diagnosis?

1- Anaphylaxis

**2- Scromboid food poisoning 3- S. Aureus toxin food poisoning**

4- Toxic Shock syndrome

5- Angioedema

Q2666. An 18 year old female is brought to A and E very unwell with a high fever, a macular and erythrodermic rash, myalgia and diarrhoea and vomiting. She is hypotensive. She is thought to have a tampon retained. She is transferred to ITU as she is found to be in Acute renal, liver and respiratory failure. 10 days after the onset there was desquamation of the palms and soles. What is the most likely diagnosis?

1- Scarlet fever

2- Infectious mononucleosis

**3- Toxic Shock syndrome**

4- Meningococcal septicaemia

5- Kawasaki disease

Q2667. Which of the following is a poor prognostic sign in Rheumatoid Arthritis?

1- Rheumatoid factor negative

2- Age >60

3- Early morning stiffness

**4- Early bony erosions**

5- Juxta articular osteopenia

Q2668. A 25 year old gentleman presents to his GP with pains in his left knee and ankles. He is also suffering from dysuria and red eye. He has noticed plaques on the palms of his hands and soles of his feet and a rash on his glans penis. What is the most likely diagnosis?

1- Rheumatoid arthritis

2- Reactive arthritis

**3- Reiters syndrome**

4- SLE

5- Psoriatic Arthritis

Q2669. A 20 year old with back pain which is relieved with exercise and is associated with morning stiffness. An Xray shows obscuring of the sacroiliac joints. Which of the following treatments is helpful?

1- Steroids

**2- Physiotherapy and Spinal extension exercises**

3- Opiates

4- Bedrest

5- Spinal osteotomy

Q2670. A 28 year old male presents with recurrent mouth and genital ulcers, diarrhoea and red eye. On examination there is evidence if apthous ulcers in his mouth and genital ulcers. His eye appears injected around the iris and he is photophobic. He has raised inflammatory markers. What is the most likely diagnosis?

1- Crohns disease

2- Ulcerative colitis

3- SLE

**4- Behcets disease**

5- Secondary syphilis

Q2671. What is the most common finding in blood testing for those with SLE?

1- Anticardiolipin antibody

2- Anti double-stranded DNA

3- ANA

4- Rheumatoid factor

**5- Low complement levels**

Q2672. What provides the best definition of standard deviation?

**1- Spread of data about the mean value**

2- The value which lies in the middle of the data

3- Type 2 error

4- Spread of data around the mode value.

5- Spread of data around median value

Q2673. What best describes a type 2 error?

1- False Negative

2- False positive

3- A test fails to reject a true null hypothesis

4- A test rejects a true null hypothesis

**5- A test fails to reject a false null hypothesis.**

Q2674. Which of the following formulae defines the positive predictive value?

1- (Number of True Positive s) /((Number of True Negative s) +(Number of False Positive s) )

2- (Number of True Negative s) /((Number of True Negative s) +(Number of False Positive s) )

3- (Number of True Positive s) /((Number of True Positive s) +(Number of False Negative s) )

4- (Number of True Negative s) /((Number of True Negative s) +(Number of False Negative s) )

**5- (Number of True Positive s) /((Number of True Positive s) +(Number of False Positive s) )**

Q2675. A trial is undertaken comparing the use of banding plus sclerotherapy versus banding plus a placebo injection for oesophageal varices. 21 from 183 procedures were unsuccessful with sclerotherapy compared to 28 from 163 procedures. What type of statistical analysis should be carried out?

1- Factorial analysis

2- Paired t test

3- Unpaired t test

**4- Chi square test**

5- Students t test

Q2676. A 50 year old female presents with fatigue and pruritus. Bloods reveal a raised ALP and high normal bilirubin. Antimitochondrial antibodies are found and raised IgM. Given the most likely diagnosis, what treatment should be commenced?

1- Methotrexate

2- D penicillamine

3- Rifampicin

**4- Ursodeoxycholic acid**

5- Azathioprine

Q2677. A 48 year old woman presents with dysphagia. This is both to liquids and solids. She has also associated retrosternal pain and she does sometimes regurgitate food. She has not had any weight loss. There is no past medical history and she is well otherwise. There is nil of note on examination and bloods are normal. A barium swallow is organised which shows a dilated oesophagus and birds beak appearance at the distal end of the oesophagus. What is the most likely diagnosis?

**1- Achalasia**

2- Chagas disease

3- Hiatus hernia

4- Oesophageal cancer

5- GORD

Q2678. A 58 year old gentleman who is known to drink excessively, presents with a 2 week history of a progressively worsening headache. This has been associated with nausea and vomiting. You notice he appears drowsy and forgetful and that he has a healing cut and bruising on his head. He states he has been told by his family that he is sleeping more than usual. On examination there is nil signs of meningism but you notice a 4/5 power on the left side. Which of the following is the most appropriate step in management?

**1- CT head and neurosurgical referral**

2- IV antibiotics and lumbar puncture

3- Analgesia

4- CT head and lumbar puncture

5- Antiemetic

Q2679. A 43 year old female present to a GP with a tremor in her hand. It is not present at rest but is accentuated when she is carrying out an action. Her father had a similar problem. She is otherwise well and there is nil of note in examination. Which of the following is the likely diagnosis?

1- Vascular Dementia

2- Parkinsons Disease

**3- Benign essential tremor**

4- Huntingtons Chorea

5- Anxiety

Q2680. A 48 year old female is complaining of repeatedly burning her right hand as she is unaware of the temperature. She also has occipital headaches which are worsened by sneezing and coughing. Which of the following is the likely diagnosis?

1- Space Occupying lesion

**2- Syringomyelia**

3- Cervical Disc Prolapse

4- Brachial Plexus Injury

5- Peripheral Neuropathy

Q2681. A 29 year old gentleman presents with weakness in the left leg. On examination there is loss of proprioception and gross touch in the left leg. In the right leg there is loss of pain and temperature sensation. Which of the following is the likely diagnosis?

1- Peripheral Neuropathy

2- L4 L5 disc Prolapse

3- Guillain Barre syndrome

4- Functional Disorder

**5- Brown Sequard syndrome**

Q2682. Which of the following is most useful in differentiating progressive supranuclear palsy from Parkinsons disease?

1- Dementia

2- Severity of symptoms

3- Falls

4- Lack of tremor

**5- Difficulty looking up and down**

Q2683. A 50 year old female has noticed loss of taste, facial weakness and hypersensitivity to sound. On examination there is a left facial nerve palsy including the forehead and reduced sensation on the left side of the face. What structure is likely to be involved?

**1- Cerebellopontine angle**

2- Cerebral cortex

3- Auditory canal

4- Parotid gland

5- Left Facial nerve

Q2684. A 72 year old male presents to GP with a three day history of severe right earache. He describes this as a burning sensation in the ear. He is also suffering from vertigo and loss of taste. On examination there is a right sided facial weakness. Which of the following is the most likely diagnosis?

1- Cholesteatoma

**2- Ramsay Hunt syndrome**

3- Stroke

4- Otitis media

5- Cerebellopontine angle tumour

Q2685. In Von Hippel Lindau disease what malignancy is she at increased risk of?

1- Cutaneous neurofibroma

2- Pancreatic carcinoma

3- Colorectal Carcinoma

**4- Renal cell carcinoma**

5- Small Cell Lung Cancer

Q2686. A 33 year old female presents with ascending paralysis of her lower limbs over the last few days and paraesthesia of her feet. She has now noticed weakness in her hands. You suspect she has Guillain Barre syndrome. A nerve conduction study shows reduced conduction velocity, conduction block and small compound motor and sensory potentials. What is the neuropathology?

1- Global demyelination

**2- Segmental demyelination**

3- Wallerian degeneration

4- Axonal degeneration

5- Mixed axonal degeneration and demyelination

Q2687. A 28 year old is wishing to conceive. She has epilepsy and has been seizure free for one year with phenytoin and lamotrigine. What do you advise in regards to becoming pregnant?

1- Commence high dose folic acid when pregnant

2- Commence a multivitamin tablet and reduce dose of anti epileptics

**3- Commence high dose folic acid now and try to withdraw one of her anti epileptic drugs**

4- Commence high dose folic acid now

5- Stop one of her anti epileptics immediately

Q2688. A 23 year old female presents to her GP with headaches which she states are worse in the morning and last thing at night and on coughing and posture change. She has also been vomiting. She is reassured and given analgesia. She then is admitted to A and E following a generalised tonic clonic seizure. She is found to have 4/5 weakness in right side and upgoing plantars. A CT head reveals a large multicentric mass with surrounding oedema in the left frontal lobe. There is some midline shift, What is the likely diagnosis?

1- Meningioma

2- Parasitic Cyst

**3- Glioblastoma**

4- Stroke

5- Metastatic Disease

Q2689. A 68 year old female is brought to her GP by her husband. He states she has become very forgetful of late and is unable to concentrate. He has also noticed over the last few months that she is incontinent of urine and has been walking in an unusual way. On examination there is evidence of gait apraxia and her reflexes are brisk. A CT is performed and shows ventricular dilatation. Which of the following is a definitive treatment?

**1- CSF shunt**

2- Acetazolamide

3- Repeat lumbar punctures

4- Levodopa

5- Donepezil

Q2690. A 24 year old patient presents to her GP. She is complaining of flashing lights in her left eye. She is also complaining of tingling and numbness in her right hand which then spread up to her arm and face. This has occurred twice previously and was followed by a severe headache affecting one side of her head with the only relief being lying in a dark room. Apart from NSAIDs, which of the following is also useful for the acute management?

1- Paracetamol

2- Propanolol

**3- Triptans**

4- Amitriptyline

5- Ergometrine

Q2691. A 32 year old female has a three day history of severe occipital headache and neck pain following a minor injury. She is then brought to A+E following development of pain and numbness on the right side of her face, dysarthria, hoarseness, dysphagia and vertigo. There is left sided loss of pain and temperature sensation and weakness. She is ataxic and there is evidence of nystagmus and a right sided horners syndrome. What is the most likely diagnosis?

1- Ischaemic stroke

**2- Vertebral artery dissection**

3- Cervical disc prolapse

4- Subarachnoid haemorrhage

5- Haemorrhagic stroke

Q2692. A 20 year old female with a history of narcolepsy is having a fight with her boyfriend when she suddenly falls to the ground. She states that she just felt her whole body was weak. She was fully conscious during the whole episode and it lasted for about 30 seconds. What is the most likely diagnosis?

1- Vasovagal syncope

2- Complex partial seizure

**3- Cataplexy**

4- Tonic clonic seizure

5- Narcolepsy

Q2693. A patient presents with a fever and sore stiff knees after a recent holiday in which he toured America camping. Examination reveals multiple rashes which reminds him of a bite he had on his leg whilst still in America. What is the causative agent?

1- Borrelia hermsii

**2- Borrelia burgdorferi**

3- Borrelia recurrentis

4- Borrelia duttoni

5- Borrelia parkeri

Q2694. Which of the following best describes a solid, circumscribed elevation which is 7mm in diameter?

**1- Nodule**

2- Plaque

3- Papule

4- Macule

5- Pustule

Q2695. A 20 year old male presents with a rash to his GP. It is predominantly over his trunk and there is multiple papules and red scaly plaques with some looking like rain drops. These are itchy. He has recently been unwell with presumed strep. throat. He has recently had sex with a new partner. What is the most likely diagnosis?

1- Reiters syndrome

**2- Guttate psoriasis**

3- Secondary syphilis

4- Pityriasis

5- Toxic Epidermal Necrolysis

Q2696. A 68 year old gentleman presents with a red, swollen, warm, hardened area of skin which is well demarcated and has a raised border. He is generally unwell with a fever. What organism is most likely responsible?

1- Staph. Epidermidis

**2- Streptococcus Pyogenes**

3- Staphylococcus Aureus

4- Group B haemolytic streptococcus

5- Herpes Simplex Virus

Q2697. A patient with type 1 diabetes mellitus, who is a heavy smoker, presents after noticing a larger ulcer on her foot. On examination there is loss of sensation to the foot however it is warm and well perfused with peripheral pulses evident. What is the most important contributing factor to the development of the ulcer in this case?

1- Peripheral vascular disease

2- Vasculitis

**3- Neuropathy**

4- Buergers disease

5- Charcots joint

Q2698. In a caucasian patient, with poorly controlled type 2 diabetes mellitus and a BMI of 50, who is already on maximal metformin and sulphonylurea, which of the following is likely to be the most appropriate drug to add to his current management?

1- Sitagliptin

2- Acarbose

3- Pioglitazone

**4- Exenatide**

5- Insulin

Q2699. A 52 year old male of Asian descent is suffering from lethargy, bone pain and is complaining of weakness with difficulty getting up from chairs and climbing stairs. Bloods reveal a low calcium and vitamin D level and an elevated alkaline phosphatase. What is the most likely diagnosis?

1- Pagets Disease

2- Hypothyroidism

**3- Osteomalacia**

4- Dermatomyositis

5- Hyperparathyroidism

Q2700. A 73 year old female suffers a pathological fracture. She has been complaining of constipation, anorexia, thirst and urinary frequency. SHe is found to be hypercalcaemic, hypophosphataemic and a raised PTH. What is the most likely diagnosis?

**1- Primary Hyperparathyroidism**

2- Pagets disease

3- Bony metastases

4- Osteomalacia

5- Myeloma

Q2701. A 25 year old gentleman presents to his GP. He is concerned as he has small testes and has a low libido and impotent. He also complains of having breasts despite him being slim and does not need to shave often. What is the most likely diagnosis?

1- Fragile X syndrome

2- Turners Syndrome

**3- Klinefelters syndrome**

4- Exogenous oestrogen

5- Complete androgen insensitivity syndrome

# Chapter 18 2011 May

Q2702. A 65 year old gentleman with previous valvular heart surgery presents with dyspnoea, ankle oedema and fatigue. On examination there is evidence of a raised JVP worsened by inspiration and has rapid x and y descents. There is also evidence of a pericardial knock and pulsatile hepatomegaly. What is the most likely diagnosis?

**1- Constrictive pericarditis**

2- Pericardial effusion

3- Dilated cardiomyopathy

4- Hypertrophic obstructive cardiomyopathy

5- Restrictive cardiomyopathy

Q2703. A 70 year old female has had several syncopal episodes. On auscultation there is an ejection systolic murmur radiating to the carotids. What is the most likely diagnosis?

1- Mitral regurgitation

2- Simple vasovagal episodes

**3- Aortic stenosis**

4- Arrhythmia

5- Hypertrophic cardiomyopathy

Q2704. A 23 year old is brought to A+E following an assault where he was stabbed in the chest. He was complaining of chest pain. He is now tachycardic and hypotensive. He has muffled heart sounds, raised JVP and pulsus paradoxus. Respiratory examination is normal. What is the most likely diagnosis?

1- Constrictive pericarditis

2- Tension pneumothorax

3- Pulmonary embolus

4- Cardiogenic shock

**5- Cardiac tamponade**

Q2705. A previous fit and healthy 45 year old gentleman presents to A and E after sudden onset of palpitations following a night out. When you examine the patient you find his pulse to be 140 bpm and irregular. His blood pressure is 130/80mmHg and his heart sounds are normal and chest is clear. An ECG confirms your suspicion of Atrial Fibrillation. What drug should be used for chemical cardioversion?

1- Adenosine

2- Atenolol

3- Amiodarone

**4- Flecainide**

5- Digoxin

Q2706. A 66 year old male with a history of AF on aspirin and bisoprolol presents with symptoms of TIAs. An ECHO and a CT Head do not reveal any abnormalities. How would you manage this patient?

1- Digoxin

2- Nil

3- Clopidogrel

**4- Warfarin**

5- Carotid endarterectomy

Q2707. A patient has just suffered a STEMI and is now found to be in complete heart block. What vessel is likely to have been involved?

1- Left anterior descending artery

2- Left coronary artery

**3- Right coronary artery**

4- Left marginal artery

5- Left circumflex artery

Q2708. A 42 year old gentleman with Type 2 Diabetes Mellitus, hypertension and 20 a day smoker, attended A+E with severe crushing central chest pain, sweaty and nausea. His current medication is lisinopril, amlodipine and bendroflumethiazide. He looks diaphoretic, pale and anxious. There is nil else of note on examination. An ECG reveals ST Elevation in II, III and aVF. What is the next most appropriate step?

1- Abciximab

2- Await 12 hour troponin and ECG

**3- Primary Percutaneous coronary intervention**

4- Aspirin, clopidogrel + LMWH

5- Thrombolysis

Q2709. A 40 year old female who is on long term steroids for Polymyalgia Rheumatica presents with sudden onset left hip pain. This is severe and she is unable to put any pressure on it. There is no history of trauma. On examination there is no obvious abnormality however there is a great reduction in left hip flexion and internal and external rotation. A hip x-ray reveals sclerosis of the femoral head. What is the most likely diagnosis?

1- Pathological fracture

2- Impacted hip fracture

**3- Avascular necrosis**

4- Osteomyelitis

5- Osteoarthritis

Q2710. A 35 year old female with rheumatoid arthritis presents with pain and tightness behind of the left leg. On examination there is evidence of a swelling in the popliteal fossa of the left knee. What investigation should be organised?

1- D dimers

2- MRI of knee

**3- Ultrasound of popliteal fossa**

4- Routine bloods

5- Arthroscopy

Q2711. A 40 year old male presents with painful fingers. On examination there is evidence of dactylitis and he is tender over his DIPs and pitting of his nails. His rheumatoid factor is negative. What is the most likely diagnosis?

1- Osteoarthritis

2- Pseudogout

3- Rheumatoid arthritis

**4- Psoriatic arthritis**

5- SLE

Q2712. Which of the following is false regarding obsessive compulsive disorder?

1- CBT is an effective treatment

2- The chance of developing OCD is increased if you have a first degree relative

**3- The dose of SSRI needed to treat OCD is lower than depression**

4- Surgery on the cingulate cortex is a last resort but effective treatment in 30% of patients

5- Clomipramine may be trialed if SSRIs dont prove effective

Q2713. A 24 year old male presents to his GP to talk about the messages that he receives through a chip in his fillings. The chip can control his thoughts and his movements. He believes that he is being used by an unknown power for an unknown mission. This has occurred for 4 months but it has only troubled him recently. What is the diagnosis?

**1- Schizophrenia**

2- Normal

3- Bipolar syndrome

4- Depression

5- Personality disorder

Q2714. A 41 year old complains of low mood and problems sleeping which get a lot worse during the winter months. The rest of the history and examination reveal nothing of note. What is the likely diagnosis?

1- Normal

2- Depression

3- Dysthymia

**4- Seasonal affective disorder**

5- Bipolar

Q2715. Which of the following is not commonly found in a manic episode of bipolar disorder?

**1- Visual Hallucinations**

2- Low attention span

3- Elevated mood

4- Pressured speech

5- Hypersexuality

Q2716. A 41 year old female presents to her GP with low mood, poor concentration, problems sleeping and no interest in any of her hobbies which she cant shake. She doesnt appear as well dressed as she normally would be and her mini mental state score is 25/30. Blood tests including thyroid function are normal. Which of the following is most likely?

**1- Depression**

2- Alcohol excess

3- Early onset dementia

4- Anxiety disorder

5- Picks disease

Q2717. A 45 year old female presents to her GP as she is worried about a tremor in her left hand that is worse when she is doing things. Her mother had a similar tremor. The rest of her examination is unremarkable. She is commenced on propanolol however cannot tolerate the side effects. What is an alternative management?

1- Procyclidine

**2- Primidone**

3- Reassure

4- L Dopa

5- Amantadine

Q2718. A patient is discovered to have autosomal dominant polycystic kidney disease. Who should be screened and what method should be utilised?

1- Genetic testing for first degree relatives

**2- Ultrasound for first degree relatives**

3- Ultrasound and genetic testing of first degree relatives

4- Ultrasound of offspring of affected individuals

5- Regular urine dipstick of first degree relatives

Q2719. A patient presents with acute renal failure secondary to rhabdomyolysis. Which other biochemical abnormalities may be seen?

1- Hyperkalaemia and metabolic alkalosis

**2- Hyperkalaemia and metabolic acidosis**

3- Hypokalaemia and metabolic acidosis

4- Hypokalaemia and metabolic alkalosis

5- Hypernatraemia

Q2720. How should SIADH be managed initially? Demeclocycline

1- Demeclocycline

**2- Fluid restriction**

3- Desmopressin

4- Double strength saline

5- Normal saline

Q2721. What compensatory mechanism occurs to counteract dehydration? Increased renal blood flow Reduced ADH levels Reduced cortisol levels Increased renal blood flow Increased sodium excretion

1- Reduced cortisol levels

2- Increased aquaporin 2 in collecting ducts

**3- Increased aquaporin 2 in collecting ducts**

4- Increased sodium excretion

5- Reduced ADH levels

Q2722. What is the chance of a healthy adult being a carrier of cystic fibrosis if his brother is affected by the condition?

1- 1 in 2

2- 100%

3- 1 in 4

4- 1 in 3

**5- 2 in 3**

Q2723. What is the chance of a male child having haemophilia A if her father had the condition and her partner is normal?

1- 0%

**2- 50%**

3- 5%

4- 25%

5- 100%

Q2724. How is hereditary haemorrhagic telangiectasia inherited?

1- X linked dominant

2- X linked recessive

3- Mitochondrial

4- Autosomal Recessive

**5- Autosomal Dominant**

Q2725. If only males are affected by a condition. What is the inheritance pattern?

**1- X linked recessive**

2- X linked dominant

3- Autosomal dominant

4- Autosomal recessive

5- Mitochondrial

Q2726. Which of the following genes is abnormal in Marfans syndrome?

1- Collagen type II

2- Collagen type I

3- Collagen type III

**4- Fibrillin 1**

5- Fibroblast growth factor 1

Q2727. A 69 year old female is receiving haemodialysis for chronic kidney disease. She has a past medical history of long standing diabetes mellitus and hypertension. She complained of feeling light headed, nauseous and sweaty and then collapsed. She When the nurse came back from phoning a doctor she was found to be having a cardiac arrest. Her only abnormal results were a haemoglobin was 9.8g/dl, a creatinine of 810 micromol/l and a calcium of 2.08 mmol/l. What has caused her cardiac arrest?

1- Hyperosmolar Hyperglycaemic Non-Ketotic Coma

2- Stroke

3- Hyperkalaemia

4- Hypocalcaemia

**5- Coronary artery disease**

Q2728. A 56 year old male with known peripheral vascular disease and ischaemic heart disease is currently on amlodipine and bendroflumethiazide for blood pressure control. On his last few blood pressure checks he has been found to be hypertensive. He is therefore commenced on ramipril. He had his bloods checked one week later and was found to be in acute renal failure. What is the most likely cause?

1- Cardiac failure

2- Glomerulonephritis

**3- Renal artery stenosis**

4- Hypovolaemia

5- Hypotensive damage

Q2729. A 9 year old presents unwell with a mild fever. He had a cold in the preceding few days and has now developed a purpuric rash on his buttocks and legs. He is also complaining of joint pain. A urinalysis reveals haematuria and proteinuria and bloods reveal acute renal failure and eosinophilia. What is the likely pathological basis of the renal disease, given the likely diagnosis?

1- Glomerular IgG deposition and mesangial proliferation

**2- Glomerular IgA deposition and mesangial proliferation**

3- Glomerulo sclerosis

4- Loss of podocytes

5- Glomerular complement deposition and mesangial proliferation

Q2730. A patient has been admitted with severe burns. 3 days into her admission her renal function starts to deteriorate. Her blood pressure is normal and she is well filled on CVP line monitoring. What is the likely cause?

1- Congestive cardiac failure

**2- Acute tubular necrosis**

3- Hypovolaemia

4- Sepsis

5- Analgesia associated

Q2731. A 60 year old male is noted to have macroglossia, hepatomegaly and has waxy papules in the eyelids, neck and groin. He complains of symptoms of carpal tunnel syndrome. He has now developed oedema and is found to have nephrotic syndrome. What is the most likely diagnosis?

**1- Amyloidosis**

2- Hypercholesterolaemia

3- Scleroderma

4- Glomerulonephritis

5- Minimal change disease

Q2732. A 72 year old female presents severe backpain and lethargy. She is also complaining of constipation, thirst and nausea. Bloods reveal acute renal failure and hypercalcaemia. What investigation will provide the diagnosis?

1- LDH

**2- Serum protein electrophoresis**

3- Parathyroid level

4- Renal biopsy

5- Vitamin D level

Q2733. Which of the following is not a cause of membranous nephropathy?

1- Systemic lupus erythematous

2- Lymphoma

3- Diabetes

**4- Alports syndrome**

5- Gold

Q2734. A 24 year old is found to have chronic renal failure. There is a history of numerous UTIs as a child. On ultrasound there is evidence of renal scarring. She is hypertensive. What is the most likely diagnosis?

1- Hypertensive renal disease

2- Polycystic kidney disease

3- Posterior urethral valve

4- Pyelonephritis

**5- Reflux Nephropathy**

Q2735. A 65 year old male with COPD presents with an acute exacerbation. He is commenced on salbutamol and ipratropium nebulisers and given IV hydrocortisone. However blood gases reveal a pO2 of 8.0 kPa and a pCO2 of 10.0 kPa and a pH of 7.2. What is the next appropriate step in management?

1- CPAP

2- Reduce O2 therapy

3- IV Doxapram

4- Intubation for ventilation

**5- BiPAP**

Q2736. What would suggest metabolic alkalosis in a patient with a bicarbonate of 36 mmol/l?

1- Raised anion gap

2- Hypokalaemia

**3- Raised CO2**

4- Low CO2

5- Alkaline urine

Q2737. Which of the following is not useful in the diagnosis of occupational asthma in the primary care setting?

1- Response to salbutamol

2- Transfer factor

**3- Serial peak flow measurement at home and work**

4- Specific bronchial provocation testing

5- FEV1/FVC ratio

Q2738. A 52 year old male who keeps pigeons presents to his GP. He states for some months he has had a productive cough, shortness of breath on exertion, fatigue, anorexia and has lost 2 stones in weight. On examination there is bibasal inspiratory crackles. A CXR reveals reticulonodular shadowing. What is the most likely diagnosis?

1- Cryptogenic Allergic Alveolitis

2- ABPA

**3- Extrinsic Allergic Alveolitis**

4- Cardiac Failure

5- Sarcoidosis

Q2739. Which of the following is not a contraindication for surgical treatment of a bronchial carcinoma?

1- Malignant pleural effusion

2- FEV1 <1.5l

3- Widespread lymph node involvement

4- Brain Metastases

**5- Paraneoplastic syndrome**

Q2740. A 52 year old gentleman has just returned from a cruise. He has developed had been unwell with fever, headache, myalgia and diarrhoea and vomiting with a dry cough. His cough is now more severe, with occasional haemoptysis and dyspnoea. Bloods reveal elevated WCC and CRP, hyponatraemia and deranged LFTs. What is the most likely causative agent?

1- Streptococcus Pneumoniae

2- Staphylcoccus Aureus

3- Klebsiella

**4- Legionella pneumophila**

5- Mycoplasma pneumoniae

Q2741. Which of the following is not true regarding alpha 1 antitrypsin deficiency?

1- Alpha 1 antitrypsin is a glycoprotein

2- Protects from neutrophil elastase

**3- Most commonly recessively inherited**

4- Liver is commonly involved

5- PiZZ genotype produces severe disease

Q2742. Which of the following leads to low pleural effusion glucose levels?

1- Parapneumonic

2- Hypothyroidism

3- Congestive cardiac failure

**4- Rheumatoid disease**

5- Cirrhosis

Q2743. A patient with Goodpastures syndrome is found to have an elevated diffusion capacity. What is the likely cause of this elevation?

**1- Pulmonary Haemorrhage**

2- COPD

3- Pulmonary embolus

4- Asthma

5- Smoking

Q2744. A 52 year old gentleman presents with unwell with a cough productive of green sputum with occasional blood flecks. He is also complaining of shortness of breath and has a cold sore. On examination he is pyrexial, tachypneoic, tachycardic and there is left basal coarse crackles. What is the most likely diagnosis?

1- Viral Pneumonia

2- Pneumonia secondary to coxiella burnetii Mycoplasma pneumoniae

3- Pneumonia secondary to H. Influenzae Klebsiella pneumoniae

**4- Pneumonia due to streptococcus pneumoniae**

5- Pneumonia due to staphylococcus aureus

Q2745. A 32 year old swedish female presents with arthralgia, cough and fever. She has also noticed bruise like lesions on her shins. On examination there is bilateral ankle arthritis and erythema nodosum. A CXR shows bilateral hilar lymphadenopathy. What is the most likely diagnosis?

1- Tuberculosis

2- Rheumatoid arthritis

3- SLE

4- Lymphoma

**5- Lofgren syndrome**

Q2746. A 29 year old presents with a DVT. She has a previous history of SLE and recurrent miscarriages. Bloods reveal a prolonged APTR and low platelets. What is the most likely diagnosis?

**1- Secondary antiphospholipid syndrome**

2- Prothrombin mutation

3- Factor V Leiden

4- SLE

5- Primary antiphospholipid syndrome

Q2747. In a patient with SLE who suffers from arthralgia and mouth ulcers, but no other organ involvement, how would you manage them?

1- Analgesia

2- Prednisolone

3- Nil

**4- Hydroxychloroquine**

5- Cyclophosphamide

Q2748. A 54 year old lady presents with joint pains. She gives a history of Raynaud's syndrome and GI upset with diarrhoea and difficulty swallowing with some weight loss. She has some telangiectasia evident on her face. Bloods reveal a normochromic normocytic anaemia and positive anticentromere pattern. Which of the following is the most likely diagnosis?

1- SLE

2- Mixed connective tissue disease

3- Rheumatoid arthritis

**4- CREST syndrome**

5- Progressive systemic sclerosis

Q2749. A 64 year old gentleman presents with a left sided headache which is severe. He has noticed his scalp is very tender when brushing his hair. What treatment is required to ensure no vision loss occurs?

1- Intraocular steroids

2- Sumatriptan

3- Azathioprine

**4- High dose oral steroids**

5- Bimatoprost

Q2750. A 19 year old male is complaining of back pain. It is stiff in the morning and the pain and stiffness eases with exercise. What are you likely to find on clinical examination?

1- Nil specific

2- Tenderness over thoracic spine

3- Focal neurology

4- Positive straight leg raising

**5- Tenderness over the sacroiliac joint**

Q2751. A 28 year old male presents with recurrent mouth and genital ulcers, diarrhoea and red eye. On examination there is evidence if apthous ulcers in his mouth and genital ulcers. His eye appears injected around the iris and he is photophobic. He has raised inflammatory markers. What is the most likely diagnosis?

**1- Behcets disease**

2- Secondary syphilis

3- SLE

4- Ulcerative colitis

5- Crohns disease

Q2752. A 72 year old man presents with 4 presumed syncopal episodes over the last 7 months. On one occasion she witnessed dysarthria, confusion and right sided weakness. he has no chest pain. He had suffered from an extensive Myocardial Infarction previously. The only finding on clinical examination is a displaced apex beat . His bloods are unremarkable but an ECG revealed anterior ST elevation. What further investigation is the most appropriate for diagnosis of the underlying diagnosis?

1- Thrombolysis

2- CT Head

3- Admit to CCU and observe

4- Coronary angiography

**5- Cardiac MRI**

Q2753. A 69 year old male presents with pyrexia of unknown origin. He has no previous medical history. He has had some recent dental work. On examination he is found to be pyrexial with a temperature of 38.5oC. On auscultation of the heart there is evidence of a pansystolic murmur in the apical region. An echo is organised and reveals a vegetation and blood cultures reveal S. bovis. He is started on IV antibiotics. What investigation must be organised for this patient?

1- Upper GI endoscopy

2- Nil required

3- Repeat Echo

**4- Colonoscopy**

5- Repeat blood cultures

Q2754. In ulcerative colitis, which of the following is not an indication for the use of Azathioprine?

1- Intolerant to steroids

2- Disease relapses within 6 weeks of stopping steroids

3- Two or more steroid courses in one year

4- Disease relapses after reducing steroids

**5- As first line with mesalazine**

Q2755. A 52 year old gentleman with previously diagnosed Barretts oesophagus has presented to clinic with dysphagia. This began with difficulty swallowing solids but now he is noticing he is finding it difficult to swallow liquids. He has noticed he has lost some weight. On examination he looks cachectic and there is some epigastric tenderness. His bloods reveal an anaemia and a raised inflammatory marker and a Chest X ray reveals a fluid level behind the heart. What is the most likely diagnosis?

1- Pharyngeal pouch

2- Benign Stricture

**3- Oesophageal carcinoma**

4- Hiatus Hernia

5- Lung cancer

Q2756. A 60 year old gentleman with known alcohol excess presents with epigastric pain radiating to his back. This has occurred several times. He also describes steatorrhoea and weight loss. What is the most likely diagnosis?

1- Coeliac disease

2- Gastritis

3- Alcoholic liver disease

4- Acute pancreatitis

**5- Chronic pancreatitis**

Q2757. A 25 year old female presents with a 6 month history of alternating diarrhoea and constipation. She also complains of abdominal bloating and passing mucous per rectum. There is no history of weight loss and her bloods are normal. What is the most likely diagnosis?

1- Coeliac disease

**2- Irritable Bowel Syndrome**

3- Crohns disease

4- Ulcerative Colitis

5- Colorectal carcinoma

Q2758. You suspect a patient with Crohns disease nay have bile acid malabsorption. What treatment might be useful?

1- Increased dose of preexisting treatment

2- Codeine

3- Loperamide

4- Infliximab

**5- Colestyramine**

Q2759. An 8 year old boy presented with bloody diarrhoea, fever and abdominal pain. He is found to have haemolytic anaemia, thrombocytopenia and acute renal failure. What is the most likely diagnosis?

1- Thrombotic thrombocytopenic purpura

**2- Haemolytic Uraemic Syndrome**

3- Henoch Schönlein Purpura

4- Gastroenteritis

5- Inflammatory bowel disease

Q2760. Which of the following is not a mode of transmission of hepatitis C infection?

**1- Faecal Oral Route**

2- Body piercings

3- Vertical transmission

4- Blood products

5- Sexual transmission

Q2761. A 52 year old female presents with increasing fatigue over the last few months. She has also noticed pains in the joints of his fingers. She has noticed she is irritable and is having severe mood swings. Recently her periods have stopped. She has also noticed being thirsty and increased urinary frequency. On examination she appears very tanned and there is evidence of hepatomegaly. Given the most likely diagnosis, what is most useful for monitoring response to treatment?

**1- Ferritin**

2- Transferrin saturation

3- CRP

4- Glucose

5- Haemoglobin

Q2762. A 59 year old gentleman presents with melaena. He is known to have hypertension and severe aortic stenosis. On examination there is an ejection systolic murmur and on examination of the chest and abdomen there is no abnormalities detected. His bloods reveal a microcytic anaemia and upper GI endoscopy is normal. What is the next investigation to be performed?

**1- Mesenteric angiography**

2- Small bowel follow through

3- Colonoscopy

4- Haematinics

5- CT Abdomen

Q2763. A 52 year old female presents after noticing for some months both eyelids drooping. She is complaining of double vision. She is also complaining of difficulty climbing stairs,getting up from chairs and brushing her hair. She states this is worse after exertion and at the end of the day. On examination the patient can only look up for a few seconds before the eyes start to drift back down. There is evidence of bilateral ptosis and her face has a mask like expression. There is evidence of proximal muscle weakness but sensation and reflexes are normal. Chronic Fatigue syndrome voltage-gated calcium-channel antibodies Anti Nuclear Antibodies ANCA Anti-striated muscle antibody

**1- Myasthenia Gravis**

2- Amyotrophic lateral sclerosis

3- Multiple Sclerosis

4- Hypothyroidism

5- Hyperthyroidism

Q2764. A 37 year old joiner is referred to the clinic as he has a 6 month history of lower back pain. It had come on suddenly 6 months ago. He now has shooting pain down the back of both legs worse on left than right. He also has numbness in his left foot. On examination the pain is reproduced at 20 degrees straight leg lift on left. He has reduced sensation over the sole of his foot of his foot and his ankle reflex is diminished and plantars are down going. Which of the following is the likely diagnosis?

1- Discitis

2- Cauda equina syndrome

3- Mechanical Back pain

4- L4/L5 disc prolapse

**5- L5/S1 disc prolapse**

Q2765. A 28 year old is wishing to conceive. She has epilepsy and has been seizure free for one year with phenytoin and lamotrigine. What do you advise in regards to becoming pregnant?

1- Commence high dose folic acid when pregnant

**2- Commence high dose folic acid now and try to withdraw one of her anti epileptic drugs**

3- Commence high dose folic acid now

4- Stop one of her anti epileptics immediately

5- Commence a multivitamin tablet and reduce dose of anti epileptics

Q2766. A 17 year old presents with generalised headache, malaise and confusion. She is pyrexial and dysphasic although there is no other focal neurology or any other examination findings. A CT brain scan shows hypodensity in both temporal lobes. Which treatment should be initiated early for effective treatment?

1- IV fluids and steroids

2- IV steroids

3- IV fluids, IV aciclovir and anticonvulsants

**4- Intravenous fluids and IV aciclovir**

5- IV fluids and antibiotics

Q2767. A patient with Parkinsons disease on laevo dopa with a peripheral dopa decarboxylase inhibitor is having increasing rigidity and tremor and is now having more off periods. What medication changes would you make?

1- Addition of amantadine

2- Apomorphine injections

3- Nil

**4- Addition of a dopamine agonist**

5- Addition of a catechol o methyltransferase (COM T) inhibitor

Q2768. A 28 year old who is 7 months pregnant presents with pain and tingling in her left hand which she notices is worst in the morning. She has also noticed dropping things. On examination there is 4/5 power in the left abductor pollicis brevis and of thumb flexion. There is reduced sensation in the left thumb, index, middle and half of the lateral half of the ring finger. There is nil else of note. What is the most likely structure affected?

1- Radial Nerve

**2- Median Nerve**

3- C7 nerve root

4- Axillary Nerve

5- Ulnar nerve

Q2769. An 79 year old female presents to her GP with falls. On examination there is evidence of a resting tremor in her hands, right worse than left. She has difficulty initiating movement and you notice reduced facial expression. Her tone is increased in her arms. She has no PMH of note and is only on ramipril for hypertension. Which of the following is the most likely diagnosis?

1- Lewy body Disease

2- Benign essential tremor

3- Stroke

4- Multi System Atrophy

**5- Idiopathic Parkinsons disease**

Q2770. A 68 year old female is brought to her GP by her husband. He states she has become very forgetful of late and is unable to concentrate. He has also noticed over the last few months that she is incontinent of urine and has been walking in an unusual way. On examination there is evidence of gait apraxia and her reflexes are brisk. What is the most likely diagnosis?

**1- Normal Pressure Hydrocephalus**

2- Alzheimers Disease

3- Picks Disease

4- Parkinsons Disease

5- Lewy Body Dementia

Q2771. A 24 year old patient presents to her GP. She is complaining of flashing lights in her left eye. She is also complaining of tingling and numbness in her right hand which then spread up to her arm and face. This has occurred twice previously and was followed by a severe headache affecting one side of her head with the only relief being lying in a dark room. Apart from NSAIDs, which of the following is also useful for the acute management?

1- Paracetamol

2- Propanolol

3- Amitriptyline

4- Ergometrine

**5- Triptans**

Q2772. A 78 year old female suffers from a stroke. She has now developed sudden, violent swinging of her right arm. What is the most likely cause?

**1- Hemiballismus**

2- Chorea

3- Seizure

4- Tardive dyskinesia

5- Athetosis

Q2773. A 48 year old female is complaining of repeatedly burning her right hand as she is unaware of the temperature. She also has occipital headaches which are worsened by sneezing and coughing. Which of the following is the likely diagnosis?

1- Cervical Disc Prolapse

2- Brachial Plexus Injury

**3- Syringomyelia**

4- Peripheral Neuropathy

5- Space Occupying lesion

Q2774. A 24 year old female has been being treated for depression and anxiety. She now presents with worsening of her mood and memory difficulties. She has noticed pain in her legs and feeling her legs jerking. You notice she has an ataxic gait and some odd choreiform movements and occasional myoclonic jerks. She is referred for an MRI which shows high signal in the posterior thalamus. An EEG reveals no abnormalities. What is the likely diagnosis?

**1- New variant Creutzfeldt Jakob disease**

2- Sporadic Creutzfeldt Jakob disease

3- Depression

4- Huntingtons Chorea

5- Picks Disease

Q2775. A patient who has hyperparathyroidism and a prolactinoma, is at increased risk of which of the following tumours?

1- Lung adenocarcinoma

2- Neurofibroma

**3- Pancreatic endocrine tumour**

4- Carcinoid

5- Colorectal carcinoma

Q2776. A 48 year old female is suffering from oligomenorrhoea. She is also complaining of tiredness, dizziness, weight gain, cold intolerance, constipation, hair and nail changes and is found to have low potassium and glucose on bloods. Her FSH, LH and oestrogen levels are low. What is the most likely cause of her amenorrhoea?

1- Primary Ovarian failure

**2- Panhypopituitarism**

3- Polycystic Ovarian syndrome

4- Addisons

5- Hypothyroidism

Q2777. An 18 year old presents with amenorrhoea for the last 6 months. She is asymptomatic otherwise. She exercises excessively and appears underweight with a BMI of 14. What is the most likely diagnosis?

1- Type 1 Diabetes Mellitus

2- Hypothyroidism

3- Coeliac disease

**4- Anorexia Nervosa**

5- Primary Ovarian failure

Q2778. Which drug, in addition to his metformin and gliclazide, should be given to a patient with type 2 Diabetes Mellitus with a high urinary albumin excretion?

1- Losartan

**2- Ramipril**

3- Bisoprolol

4- Insulin

5- Aspirin

Q2779. A patient who has been stable on thyroxine for hypothyroidism for a long time is found to have a high TSH and normal free T4. What is the most likely cause?

1- Low FT3

**2- Poor compliance**

3- Over replacement

4- Normal in thyroxine treatment

5- Inadequate dose

Q2780. A 52 year old male of Asian descent is suffering from lethargy, bone pain and is complaining of weakness with difficulty getting up from chairs and climbing stairs. Bloods reveal a low calcium and vitamin D level and an elevated alkaline phosphatase. What is the most likely diagnosis?

1- Dermatomyositis

2- Hypothyroidism

3- Hyperparathyroidism

**4- Osteomalacia**

5- Pagets Disease

Q2781. A 73 year old female suffers a pathological fracture. She has been complaining of constipation, anorexia, thirst and urinary frequency. SHe is found to be hypercalcaemic, hypophosphataemic and a raised PTH. What is the most likely diagnosis?

1- Osteomalacia

2- Myeloma

3- Pagets disease

**4- Primary Hyperparathyroidism**

5- Bony metastases

Q2782. Which of the following antihypertensives is most likely to lead to hypercalcaemia?

1- Losartan

2- Amlodipine

3- Atenolol

**4- Bendroflumethiazide**

5- Ramipril

Q2783. What is the future risk of a child, with type 1 diabetes mellitus, identical twin developing diabetes?

1- 100%

2- 0 to 10%

3- 10 to 20%

4- 75 to 90%

**5- 30 to 50%**

Q2784. A 25 year old male presents with fatigue, nausea and weight loss. He has noticed on several occasions feeling dizzy when standing up and has fainted. He is found to have a postural drop in his blood pressure. A few weeks later he is brought to A+E collapsed, hypotensive with a low BM. What treatment should be given?

**1- IV Hydrocortisone**

2- IV fluids

3- IV dextrose

4- IM glucagon

5- Thyroxine

Q2785. A patient who has confirmed Cushings disease following a low dose dexamethasone suppression test, is found to have an incomplete response to a high dose dexamethasone suppression test but shows an increased cortisol level following administration of corticotropin releasing hormone. What is the most likely definitive diagnosis?

1- Adrenal adenoma

**2- Cushings disease**

3- Ectopic ACTH secretion

4- Conns Syndrome

5- Exogenous steroids

Q2786. A patient presents with a hard, fixed , painless woody goitre. She is having some difficulty with swallowing. She is otherwise asymptomatic. A thyroid ultrasound is performed and reveals a homogeneously hypoechoic gland. She is euthyroid. A biopsy is organised reveals dense infiltration. What is the most likely diagnosis?

1- Hashimotos thyroiditis

2- De Quervain thyroiditis

**3- Riedels thyroiditis**

4- Anaplastic carcinoma

5- Thyroid lymphoma

Q2787. A 52 year old patient who has recently been diagnosed with lung cell cancer present with weight gain (mainly around the face and trun k) , bruising easily, striae, and his skin appearing darker. On examination he has a moon face, buffalo hump and he is hypertensive. His bloods reveal hypokalaemia. What is the most likely diagnosis?

1- Hypothyroidism

2- Exogenous steroids

3- Addisons disease

4- Cushings disease

**5- Ectopic ACTH secretion**

Q2788. A 19 year old female presents with irregular periods to her GP. You notice she is overweight and has acne. She admits that she has to regularly bleach her upper lip hair and has a line of hair from her umbilicus to her pubic hair which she is embarrassed about. Her bloods reveal an elevated LH:FSH ratio and testosterone is at the high end of normal and sex hormone binding globulin is low. Her fasting glucose is 6.2. What Is the most likely diagnosis?

1- Exogenous testosterone

**2- Polycystic ovarian syndrome**

3- Late onset congenital adrenal hyperplasia

4- Ovarian hyperthecosis

5- Androgen secreting tumour

Q2789. A patient who is ICU is found to have a slightly low TSH, low T3 and normal T4. She has no history of thyroid disease. What is the most likely cause?

1- Hyperparathyroidism

2- Pituitary Hypothyroidism

**3- Euthyroid sick syndrome**

4- Hypothyroidism

5- Subclinical hyperthyroidism

Q2790. A 65 year old male is found incidentally to have an ejection systolic murmur. An Echo confirms aortic stenosis with a gradient of 80mmHg and left ventricular dysfunction. How should this patient be managed?

1- Monitored as an outpatient

**2- Aortic valve replacement**

3- Anticoagulation

4- Aortic valvuloplasty

5- Nil specific avoid vasodilators

Q2791. If a patient suffers a stroke following a DVT, what is the most likely cardiac abnormality?

1- Ventricular septal defect

2- Atrial fibrillation

3- Atrial septal defect

4- Nil

**5- Patent foramen ovale**

Q2792. A 60 year old woman has a history of PAF for which she is on warfarin and amiodarone, hypercholesterolaemia for which she takes simvastatin and hypertension on bendroflumethiazide and ramipril. She is suffering from recurrent UTIs and has been advised to drink cranberry juice. What is cranberry juice likely to interact with?

1- Simvastatin

**2- Warfarin**

3- Ramipril

4- Amiodarone

5- Bendroflumethiazide

Q2793. A 58 year old man who is a heavy smoker presents with severe epigastric pain radiating to his jaw. On examination he is bradycardic and hypotensive and an ECG reveals ST elevation in leads II, III and aVF. What diagnosis fits best with this clinical picture?

1- Unstable angina

2- Inferior NSTEMI

3- Anterolateral STEMI

**4- Inferior STEMI**

5- Pancreatitis

Q2794. A 70 year old man with Chronic Renal Impairment and Hypertension presents with chest pain and is found to have an acute anterolateral myocardial infarction. He is referred for PCI. 2 days later you are asked to review him as his legs appear dusky and his left big and second toe are blue and there is evidence of splinter haemorrhages on his toe nails. His BP is 150/90 mmHg and his pulse is regular and has a rate of 80 bpm. On auscultation his heart sounds are normal however there is evidence of a left femoral bruit.

1- Renal artery stenosis

2- Embolism from femoral artery

3- Peripheral vascular disease

4- Contrast nephropathy

**5- Cholesterol embolism**

Q2795. Which pair is correct in regards to the type of porphyria and the correct deficiency?

1- Erythropoietic protoporphyria : protoporphyrinogen

2- Porphyria cutanea tarda : coproporphyrinogen

3- Variegate Porphyria : ferrochelatase

**4- Acute intermittent porphyria : Porphobilinogen**

5- Hereditary coproporphyria : Uroporphyrinogen decarboxylase

Q2796. Haemophilia A is caused by?

**1- Factor VIII deficiency**

2- Vitamin K deficiency

3- Factor XIII deficiency

4- Factor IX Deficiency

5- Protein S deficiency

Q2797. A patient presents with erythema nodosum and is found to have bilateral hilar lymphadenopathy. Which biochemical abnormality is associated with this?

1- Hypernatraemia

**2- Hypercalcaemia**

3- Hypokalaemia

4- Hyponatraemia

5- Hyperkalaemia

Q2798. Regarding the internal capsule, which of the following is true:

1- The anterior limb of the internal capsule lies between the head of the caudate nucleus and the head of the lentiform nucleus

2- The septum lucidum lies medial to the posterior limb

3- The lentiform nucleus itself comprises an outer globus pallidus and an inner amygdaloid body.

4- The junction of the thalamus and the lenticular nucleus is termed the coronal junction

**5- The internal capsule arterial supply arises from lenticulostriate vessels which come**

off the middle and anterior cerebral arteries

Q2799. Which muscle is associated with ulnar neuropathy?

1- Flexor pollicis brevis

2- Flexor pollicis longus

3- Adductor pollicis

4- opponens pollicis

**5- Lateral lumbricals**

Q2800. A 68 year old femalee presents with central visual blurring. On examination there appears to be small yellow deposits within the maculae and a small haemorrhage at the maculae. Fluoroscein angiography is performed and shows neovascularisation within the macula of both eyes. You suspect wet age related macular degeneration. Which of the following is an important risk factor for the development?

1- Glaucoma

2- Cataract surgery

3- Hypertension

4- Diabetes

**5- Smoking**

Q2801. What would be found on fundoscopy if a patient has maculopathy?

**1- Macular oedema, ischaemia and hard exudates**

2- Macular oedema, ischaemia and cotton wool spots

3- Normal fundus

4- Neovascularisation

5- Flame haemorrhage and cotton wool spots

Q2802. A 30 year old male with chronic lower back pain and a history of ulcerative colitis complains of a red painful eye and blurred vision. What is the most likely cause of the pain?

1- Conjunctivitis

2- Scleritis

**3- Uveitis**

4- Keratitis

5- Chorioretinitis

Q2803. A lady aged 32 presents with severe eye pain and photophobia. Her eye appears red with a blue-ish tint to the sclera. Her history reveals recent early joint pain that she put down to exercise. What is the cause of the eye pain?

1- Uveitis

2- Episcleritis

**3- Scleritis**

4- Optic neuritis

5- Conjunctivitis

Q2804. An 18 year old has bilateral ptosis, restricted eye movements, opthalmoplegia, retinitis pigmentosa and AV block. What is the diagnosis?

1- Myasthenia gravis

2- Myotonic dystrophy

**3- Kearns Sayre syndrome**

4- Pearson syndrome

5- Chronic progressive external ophthalmoplegia

Q2805. A 30-year-old presents to her GP with reduced vision in her left eye. She has previously presented with abnormal sensory changes in her leg which have now resolved. On examination her visual acuity is greatly reduced and there is evdence of a relevant afferent pupil defect. All movements of the eye are very painful. On fundoscopy and neurological examination there is nil of note. What is the most likely diagnosis?

1- Retinal vein occlusion

2- Orbital tumour

3- Thyrotoxicosis

**4- Optic neuritis**

5- Age related macular degeneration

Q2806. Thiazide diuretics are thought to act upon which of the following?

1- Descending loop of Henle

**2- Distal convoluted tubule**

3- Glomerulus

4- Proximal convoluted tubule

5- Collecting duct

Q2807. Which of the following ABGs results is due to an error in the analysis?

1- pH 7.38; pO2 11.8 kPa; pCO2 5.6 kPa; bicarbonate 26 mmol/l

**2- pH 7.25; pO2 11.1 kPa; pCO2 2.8 kPa; bicarbonate 26 mmol/l**

3- pH 7.5; pO2 12.5 kPa; pCO2 3.2 kPa; bicarbonate 16 mmol/l

4- pH 7.38; pO2 10.6 kPa; pCO2 6.5 kPa; bicarbonate 34 mmol/l

5- pH 7.39; pO2 11.1 kPa; pCO2 3.7 kPa; bicarbonate 18mmol/l

Q2808. A COPD patient has the following blood gas, pH 7.24, CO2 9.5 kPa, O2 9 kPa, bicarbonate 33mmol/l. What is the acid base disturbance?

1- Acute respiratory acidosis

2- Acute exacerbation of chronic metabolic acidosis

3- Chronic, compensated respiratory acidosis

**4- Acute exacerbation of chronic respiratory acidosis**

5- Acute exacerbation of chronic respiratory alkalosis

Q2809. Which of the following suggests proximal tubular dysfunction?

1- Haematuria

2- Hyperkalaemia

3- Hyperuricaemia

**4- Metabolic acidosis**

5- Alkaline urine

Q2810. Which of the following is not true regarding pulmonary surfactant?

1- Hydrophilic and hydrophobic region

**2- Produced by type I alveolar cells**

3- Lowers surface tension

4- Produced by type II alveolar cell

5- Increases pulmonary compliance

Q2811. Imatinib is utilised in the management of Chronic Myeloid Leukaemia. What is its mechanism of action?

1- Tyrosine kinase receptor blocker

2- PPAR gamma activator

**3- Tyrosine kinase inhibitor**

4- Tyrosine kinase activator

5- PPAR gamma inhibitor

Q2812. Which of the following does not require alteration in renal failure?

1- Clarithromycin

2- Piperacillin

**3- Clindamycin**

4- Amoxicillin

5- Co amoxiclav

Q2813. A patient with a past history of a psychiatric disorder presents with nausea, vomiting, tremor and ataxia. An ECG shows flattened t waves. What is the most likely diagnosis?

1- Tardive dyskinesia

2- Tricyclic antidepressants

3- Dystonia

**4- Lithium toxicity**

5- Serotonin syndrome

Q2814. Which of the following is not a cause of nephrogenic diabetes insipidus?

**1- Head injury**

2- Hypercalcaemia

3- Hypokalaemia

4- Lithium toxicity

5- Renal tubular acidosis

Q2815. What is the mechanism of action of N acetyl cysteine in paracetamol overdose?

**1- Replenishes glutathione**

2- Increases break down of toxic metabolites

3- Binds toxic metabolites

4- Reduces glutathione

5- Hepatic protective

Q2816. A patient with AF for which he is on digoxin, aspirin and atenolol if found to be in acute renal failure. What medication changes are essential?

1- No changes required

**2- Reduce dose of digoxin**

3- Stop aspirin

4- Stop atenolol

5- Increase dose of digoxin

Q2817. Which of the following drug is not associated with a survival benefit in congestive cardiac failure?

1- Nitrates and hydralazine

**2- Digoxin**

3- Spironolactone

4- Ramipril

5- Carvedilol

Q2818. A patient presents with compensated cardiac failure. Which of the following medications is commenced initially and will most likely improve symptoms and prognosis?

1- Spironolactone

2- Furosemide

3- Amlodipine

4- Digoxin

**5- Ramipril**

Q2819. A 55 year old female presents with shortness of breath on exertion and fatigue. She is found to have a pancytopenia on bloods with an elevated MCV. She is found to have antibodies for intrinsic factor and parietal cells. What is the most likely diagnosis?

1- Folate deficiency

2- Aplastic leukaemia

**3- Pernicious anaemia**

4- Iron deficiency

5- Leukaemia

Q2820. A 64 year old male presents with general malaise, weight loss and night sweats. He also complains of abdominal discomfort in the left upper quadrant. On examination there is evidence of massive splenomegaly. Bloods revealed a low haemoglobin and neutropenia. A blood film reveals leukoerythroblastosis with tear drop poikilocytosis and megakaryocyte fragments. What is the most likely diagnosis?

1- Myelodysplasia

2- Chronic myeloid leukaemia

3- Non Hodgkins Lymphoma

**4- Myelofibrosis**

5- Acute lymphoblastic leukaemia

Q2821. Which of the following is the most common cause of familial thrombophilia?

1- Protein C and S deficiencies

2- Antithrombin deficiency

**3- Factor V Leiden mutation**

4- Antiphospholipid syndrome

5- Prothrombin mutation

Q2822. Which of the following genetic mutations is associated with the worst prognosis in acute lymphoblastic leukaemia?

1- t(4;11)

2- inv 16

3- t(12;21)

4- t(1;19)

**5- t(9;22)**

Q2823. A 21 year old female presents with increased frequency of nose bleeds. She has also noticed easy bruising and bleeding from her gums. Bloods reveal a slightly low haemoglobin, normal white cell count and platelets of 15. Blood film confirm thrombocytopenia with the platelets which are present being large in size. She is otherwise fit and well and is n no medications. There is nil of note on examination. What is the most likely diagnosis?

1- Aplastic anaemia

**2- Idiopathic thrombocytopenic purpura**

3- von Willebrands disease

4- Drug related thrombocytopenia

5- Leukaemia

Q2824. A 21 year old female presents with increased frequency of nose bleeds. She has also noticed easy bruising and bleeding from her gums. Bloods reveal a slightly low haemoglobin, normal white cell count and platelets of 15. Blood film confirm thrombocytopenia with the platelets which are present being large in size. She is otherwise fit and well and is on no medications. There is nil of note on examination. What treatment should be initiated?

1- Azathioprine

2- IV Immunoglobulin

**3- Corticosteroids**

4- Cyclophosphamide

5- Splenectomy

Q2825. A patient with von Willebrands disease is requiring surgery. How should you manage this patient?

1- Steroids

**2- DDAVP and tranexamic acid**

3- Cryoprecipitate

4- Platelet transfusion

5- Fresh frozen plasma

Q2826. What is the chance of a male child having haemophilia A if her father had the condition and her partner is normal?

1- 5%

2- 25%

3- 0%

4- 100%

**5- 50%**

Q2827. A 14 year old girl is suffering from thirst and increased urination. She is found to have a hypokalaemic, hypochloraemic alkalosis and hypomagnesaemia. A 24 hour urine collection reveals hypocalciuria and an ECG QT prolongation. What is the most likely diagnosis?

1- Bartters syndrome

2- Liddles syndrome

3- Type 4 renal tubular acidosis

4- Type 1 renal tubular acidosis

**5- Gitelmans syndrome**

Q2828. A 56 year old male with known peripheral vascular disease and ischaemic heart disease is currently on amlodipine and bendroflumethiazide for blood pressure control. On his last few blood pressure checks he has been found to be hypertensive. He is therefore commenced on ramipril. He had his bloods checked one week later and was found to be in acute renal failure. Given the most likely diagnosis, what is the most appropriate management?

**1- Stop ACE inhbitor, Aspirin, Statin and optimal blood pressure control**

2- Renal angioplasty

3- Ultrasound

4- Renal artery thrombolysis

5- Stop ACE inhbitor until bloods normalise then restart at lower dose

Q2829. A 9 year old presents unwell with a mild fever. He had a cold in the preceding few days and has now developed a purpuric rash on his buttocks and legs. He is also complaining of joint pain. A urinalysis reveals haematuria and proteinuria and bloods reveal acute renal failure and eosinophilia. What is the likely pathological basis of the renal disease, given the likely diagnosis?

1- Glomerular complement deposition and mesangial proliferation

2- Loss of podocytes

**3- Glomerular IgA deposition and mesangial proliferation**

4- Glomerular IgG deposition and mesangial proliferation

5- Glomerulo sclerosis

Q2830. In pregnancy, how should a UTI be treated?

1- Amoxicillin

2- Trimethoprim

3- No treatment required

**4- Cefalexin**

5- Encourage increased water intake

Q2831. A patient is found to have cystine renal stones. What is the most likely cause of this?

1- Cystinosis

2- Calciuria

3- Poor water intake

4- Furosemide abuse

**5- Cystinuria**

Q2832. A patient notices that whenever he has an upper respiratory infection or gastroenteritis, that there is blood in his urine. He states that even when he has been well that when his urine has been dipped there is still a trace of blood. Given the likely diagnosis, what is the likely pathological process?

1- Loss of podocytes

2- Complement deposition

3- Deposition along basement membrane of immunoglobulins and complement

4- Focal segmental glomerulosclerosis

**5- Mesangial proliferation with prominent IgA deposition**

Q2833. Which of the following is a live vaccine?

1- Cholera vaccination

**2- Yellow fever vaccination**

3- Salk polio vaccination

4- Hepatitis vaccination

5- Pertussis vaccination

Q2834. What is the main contributory factor to the immunodeficiency seen in chronic lymphocytic leukaemia?

1- Interleukin 10 activity

**2- Hypogammaglobulinaemia**

3- Lymphopenia

4- Neutropenia

5- T cell deficiency

Q2835. A 24 year old with latex is brought to A+E with anaphylactic shock. Which fruit is associated with latex allergy?

**1- Banana**

2- Pear

3- Grapefruit

4- Apple

5- Orange

Q2836. A 27 year old gentleman has had a previous splenectomy for ITP. Since his splenectomy he has had 2 episodes of pneumonia. Post splenectomy what type of immunodeficiency is occurs?

1- Complement mediated

2- Killer T cells

3- Cell mediated

4- Helper T cells

**5- Humoral**

Q2837. In C2 deficiency as well as increased risk of recurrent bacterial infections, what else is there is an increased risk of?

1- Pancreatic cancer

2- Colorectal cancer

**3- Cardiovascular disease**

4- Viral infections

5- Angiooedema

Q2838. How are the majority of hereditary complement deficiencies inherited?

1- Mitochondrial

2- X linked recessive

**3- Autosomal recessive**

4- X linked dominant

5- Autosomal dominant

Q2839. A child has recurrent pyogenic infection. What is the most likely diagnosis?

**1- Mannose binding lectin deficiency**

2- Killer T cell deficiency

3- C2 deficiency

4- B cell deficiency

5- Helper T cell deficiency

Q2840. A 37 year old presents with fatigue, weight loss and nausea. He describes episodes of haemoptysis and has noticed his urine being very dark. On examination he has bibasal crepitations. His bloods reveal an iron deficiency anaemia and renal impairment and urinalysis reveals proteinuria and microscopic haematuria. What is the most likely diagnosis?

1- SLE

2- Glomerulonephritis

3- Churg Strauss syndrome

**4- Goodpastures syndrome**

5- Wegeners Granulomatosis

Q2841. A patient with HIV presents with a sudden onset of confusion. CMV encephalitis is suspected. What treatment should be commenced?

1- Aciclovir

2- Dexamethasone

3- Ceftriaxone

**4- Ganciclovir**

5- Nil required

Q2842. A back packer has just returned from India and presents to his GP with a sore throat. He initially felt like he had a cold and then noticed a very severe sore throat and difficultly swallowing. He feels pyrexial and unwell. On examination there appears to be a pseudomembrane over his pharynx and he has enlarged cervical lymph nodes giving him a “bull neck” appearance. Given the most likely diagnosis, what treatment should be initiated?

1- Tracheostomy

2- Hydrocortisone

**3- Antitoxin**

4- Benzylpenicillin

5- Blood cultures

Q2843. What simple measures has lead to the reduction of spread of infectious organisms?

**1- Hand Hygiene**

2- Single toliets

3- Single side rooms

4- Antibiotics

5- MRSA eradication therapy

Q2844. A 19 year old male has recently been back packing to South America. He is brought to A+E unwell. A couple of weeks prior to this he had been complaining of headache, constipation, a cough and feeling feverish. He now looks extremely unwell with a high temperature, diarrhoea and vomiting. On examination he is hypotensive but his heart rate is only 90. His abdomen is distended and there is evidence of hepatomegaly and splenomegaly. What is the most likely diagnosis?

1- Influenza

2- E Coli

**3- Typhoid fever**

4- Tuberculosis

5- Malaria

Q2845. A 17 year old presents with generalised headache, malaise and confusion. She is pyrexial and dysphasic although there is no other focal neurology or any other examination findings. A CT brain scan shows hypodensity in both temporal lobes. Cerebrospinal fluid reveals an elevated white cell count, predominantly monnuclear cells, a slightly raised protein concentration and a normal CSF/blood glucose ratio. Which treatment should be initiated early for effective treatment?

1- Intravenous fluids, aciclovir, antibiotics and corticosteroids

2- IV fluids and broad spectrum antibiotics

3- Intravenous fluids, antibiotics and prophylactic anticonvulsants

**4- Intravenous fluids and IV aciclovir**

5- Intravenous fluids, aciclovir and broad spectrum antibiotics

Q2846. In a patient who is aged over 50 or under 3 months of age, what is an appropriate addition to ceftriaxone for the empirical management of meningitis?

**1- Amoxicillin 2g 6 hourly**

2- Vancomycin

3- Gentamicin

4- Amoxicillin 1g 8 hourly

5- Rifampicin

Q2847. A 12 year old is brought to his GP. He has been unwell for the last few days with a fever, coryza, diarrhoea and a dry cough. On examination there is evidence of small red spots with a white speck in the centre opposite the second molar on the buccal mucosa. There is also evidence of an erythematous rash on the forehead and neck. She then becomes short of breath and there is evidence of bibasal crepitations. What is the most likely diagnosis?

1- Mumps

2- Kawasaki disease

**3- Measles**

4- Rubella

5- Stills disease

Q2848. A 26 year old patient is brought to A and E very unwell with headache, neck stiffness, photophobia and fever. A lumbar puncture is performed and reveals a glucose of more than half of serum, a protein of 0.6 g/L and predominantly mononuclear cells. Given the most likely diagnosis, which of the following investigation can aid in confirming the diagnosis?

1- T spot test

2- Blood cultures

3- Culture of CSF

**4- PCR of CSF**

5- Ziehl Nielsen staining of CSF

Q2849. Which of the following does not cause a bloody diarrhoea? 1- E. Coli

2- Shigella

**3- Cholera leads to profuse watery diarrhoea whilst the others can cause bloody diarrhoea.**

4- Campylobacter

5- Salmonella

Q2850. A 24 year old male has recently had unprotected sex. He presents with arthritis, red watery eyes and dysuria. He also has noticed plaques on his hands. What is the most likely diagnosis?

1- UTI

2- Stills disease

**3- Reiters syndrome**

4- Conjunctivitis

5- Seronegative arthritis

Q2851. A 4 year old girl is complaining of pain in her thigh and hip. On examination she is tender on palpation of the thigh. Her bloods show elevated inflammatory markers. An ultrasound and x-ray of the hip and femur is normal. What is the most likely diagnosis?

1- Bone tumour

**2- Osteomyelitis**

3- Septic arthritis

4- Hip fracture

5- Perthes disease

Q2852. A 75 year old female with known osteoarthritis presents with a painful thumb. She is otherwise well and there is no history of trauma. On examination there is swelling and tenderness in the first carpometacarpal joint. She is apyrexial. Blood tests are normal. What is the most likely diagnosis?

1- Gout

**2- Osteoarthritis**

3- Rheumatoid arthritis

4- Pseudogout

5- Fracture

Q2853. A 62 year old presents with pain and swelling of her carpal metacarpal and distal interphalangeal joints. X-rays are performed and shows erosions of a gull's wing pattern. There is no osteophytes or Juxta-articular osteopaenia. Although ESR is slightly elevated, rheumatoid factor and all other autoantibodies are negative. What is the most likely diagnosis?

**1- Erosive osteoarthritis**

2- Rheumatoid arthritis

3- SLE

4- Psoriatic arthritis

5- Pseudogout

Q2854. In limited cutaneous systemic sclerosis which antibody if most specific?

1- Anti Ro

2- Rheumatoid factor

3- Anti Jo1

4- ANCA

**5- Anti centromere**

Q2855. The 5 year mortality of a disease is 50%. A new treatment is developed and the relative risk for patients on this treatment is 0.9. How many patients need to use the treatment for one life to be saved?

1- 45

2- 40

**3- 20**

4- 100

5- 5

Q2856. What provides the best definition of standard deviation?

1- Type 2 error

**2- Spread of data about the mean value**

3- Spread of data around median value

4- The value which lies in the middle of the data

5- Spread of data around the mode value.

Q2857. Which of the following is the best description for the p-value?

1- Type 2 error

2- 0.01

**3- Type 1 error**

4- 0.05

5- Standard error

Q2858. A group of 100 subjects ages are normally distributed with a mean of 41 years and a standard deviation of 4 years. Select the true statement

1- 75 members of the study will be aged 37 and 45

2- 50 of the subjects will be between 39 and 43 years of age

**3- 16 subjects will be below 37 years of age**

4- 50% of the cohort will be between the age 37 and 45

5- At least 5 subjects will be older than 49

Q2859. What does it mean if a persons IQ places them on the 65th centile?

**1- It means that 65% of the population has an IQ which is lower than the individuals**

2- It means that the have an IQ of 65

3- It means that the persons IQ is 65% lower than the population mean

4- It means that 65% of the population has an IQ which is higher than te individuals

5- It means that the persons IQ is 65% greater than the population mean

Q2860. What is the best way to monitor a patient's nutritional status?

1- Weight

**2- Clinically**

3- BMI

4- Serum levels of elements

5- Albumin

Q2861. A 57 year old man presents with epigastric pain radiating through to his back. This has been associated with nausea and vomiting and he has had significant weight loss in the past few months. He is known to be a heavy drinker and smoker. On examination there is evidence of epigastric tenderness. An upper GI endoscopy is performed and reveals oesophagitis. What investigation would you organise next?

1- CA 19 9

2- Abdominal ultrasound

3- Colonoscopy

4- Urea breath test

**5- CT Abdomen**

Q2862. A 60 year old gentleman presents to his GP with tiredness and increased shortness of breath. Bloods reveal a microcytic hypochromic anaemia and he is subsequently found to have iron deficiency anaemia. There is no evidence of any GI symptoms. What investigation s most appropriate to organise in this case?

**1- Colonoscopy**

2- Flexible sigmoidoscopy

3- CT Chest Abdomen and Pelvis

4- Upper GI endoscopy

5- Recheck bloods in three months time after iron supplementation

Q2863. A 48 year old woman presents with dysphagia. This is both to liquids and solids. She has also associated retrosternal pain and she does sometimes regurgitate food. She has not had any weight loss. There is no past medical history and she is well otherwise. There is nil of note on examination and bloods are normal. A barium swallow is organised which shows a dilated oesophagus and birds beak appearance at the distal end of the oesophagus. What is the most likely diagnosis?

1- Hiatus hernia

2- Chagas disease

3- GORD

**4- Achalasia**

5- Oesophageal cancer

Q2864. A 48 year old female with known Raynaud's phenomenon presents as she has noticed certain areas of progressive skin tightness with thickness of the fingers, shortness of breath on exertion and difficulty swallowing. She is found to be hypertensive Which of the following is the most likely diagnosis?

1- Limited cutaneous scleroderma

2- Systemic lupus erythematous

3- Ehlers Danlos

**4- Diffuse cutaneous scleroderma**

5- CREST syndrome

Q2865. Which of the following tumour markers is associated with pancreatic cancer?

1- CEA

2- CA 125

3- None of these

**4- CA 19 9**

5- AFP

Q2866. Signet cell rings are most commonly found in which of the following malignancies?

1- Colorectal carcinoma

**2- Gastric cell carcinoma**

3- Bronchial carcinoma

4- Testicular carcinoma

5- Pancreatic carcinoma

Q2867. What blood vessel if thrombosed would lead to a Right sided Horners Syndrome and intention tremor and right sided facial loss of pain and temperature sensation and left sided body pain and temperature loss and weakness?

1- Vertebral artery

2- Left middle cerebral artery

3- Right anterior cerebral artery

**4- Right posterior inferior cerebellar artery**

5- Right posterior Cerebral artery

Q2868. Where is the Golgi apparatus situated in a cell?

**1- Endoplasmic reticulum**

2- Exocytotic vesicle

3- Nucleus

4- Endosome

5- Cell membrane

Q2869. In which condition are signet ring cells commonly seen histologically?

1- Oesophageal adenocarcinoma

2- Oesophageal squamous cell carcinoma

3- Hepatocellular carcinoma

4- Gastric leiomyoma

**5- Gastric adenocarcinoma**

Q2870. Where does RNA splicing occur?

1- Ribosome

2- Cytoplasm

3- Golgi apparatus

**4- Nucleus**

5- Cell wall

Q2871. Which protein is abnormal in Marfans syndrome?

**1- Fibrillin**

2- Collagen IV

3- Dystrophin

4- Collagen I

5- Collagen III

Q2872. A man has had diarrhoea for 3 weeks following cholecystectomy. What is the likely cause?

1- Staphylococcus aureus

2- Lactose intolerance

3- Streptococcus viridans

**4- Bile acid malabsorption**

5- Staphylococcus epidermidis

Q2873. Polymerase chain reaction (PC R) is a tool utilised to replicate specific sections of nucleic acid, which of the statements below relate to reverse transcriptase PCR (RT-PC R) ?

**1- It can be used to quantify mRNA**

2- Oligonucleotides primers used are specific for the sense strand of the DNA

3- The DNA produced during the reaction is known as genomic DNA

4- The DNA produced during the reaction contains introns

5- The enzyme used during the reaction (Taq polymeras e) is thermolabile

Q2874. Which of the following statements is false when considering the cell cycle of a eukaryotic somatic cell?

1- p53 is a tumour supressor protein which can prevent the cell cycle at the G1 phase

2- M represents the mitotic phase of the cycle

3- Normal cells with damage to their DNA structure

**4- The DNA content of the cell in the G2 phase is four times that of cells in G0 phase**

5- S phase is the synthesis phase of the cycle

Q2875. Which of the following tests uses a labeled complementary DNA or RNA strand to localize a specific DNA or RNA sequence?

1- Western Blot

2- Polymerase chain reaction

3- Northern Blot

**4- In Situ Hybridisation**

5- Southern Blot

Q2876. Which tumour marker and disease pair is correct?

1- Sarcoidosis and Vimentin

2- Lung cancer and AFP

**3- Ovarian cancer and CA 125**

4- Pancreatic cancer and CarcinoEmbryonic Antigen

5- Pancreatic cancer and CA 20 2

Q2877. A 37 year old male notices a blistering rash on his hands developing after working on a sunny day in the garden. This has occurred previously and led to some scarring. He has also noticed some hair developing on his cheek. What investigation would you perform to confirm the diagnosis?

**1- Plasma and urinary uroporphyrins**

2- Blood cultures

3- Patch testing

4- Skin biopsy

5- Autoantibodies

Q2878. A 28 year old soldier presents with an itchy rash. He is itchy in his finger webs, wrists and groin and there is evidence of excoriation in these areas. What is the most likely diagnosis?

1- Tinea corporis

2- Psoriasis

3- Contact dermatitis

**4- Sarcoptes scabiei infection**

5- Lichen planus

Q2879. A 35 year old presents with red scaly patches on her face, scalp and hands. On examination there is evidence of red plaques on her face, hands and scalp with some bald patches. Some of the patches are scarring and discoloured. What is the diagnosis that fits best with this clinical picture?

1- Seborrhoeic Dermatitis

**2- Chronic discoid lupus erythematosus**

3- Psoriasis

4- Drug induced lupus

5- SLE

Q2880. A 14 year old girl presents with moderate acne and pustules affecting the face, back and chest. How would you manage this case?

1- Roaccutane

**2- Oral tetracycline for three months**

3- Topical tretinoin

4- Dianette

5- Topical erythromycin

Q2881. A 52 year old with known alcohol excess presents with facial flushing, pustules and telangiectasia predominantly around the nose. What is the most likely diagnosis?

1- Drug reaction

**2- Rosacea**

3- Seborrhoeic Dermatitis

4- Allergic reaction

5- Acne vulgaris

Q2882. A 72 year old female presents to her GP after noticing blisters on her arms and legs. She has recently been commenced on furosemide. On examination there is tense blisters evident predominantly on the flexural surfaces of her arms and legs. There is no evidence of blisters in her mucous membranes. There is some healing areas where the blisters have burst but no evidence of scarring. A skin biopsy is organised and reveals subepidermal blister and inflammatory infiltrate with numerous eosinophils. What is the most likely diagnosis?

1- Eczema herpeticum

2- Pyoderma gangrenosum

**3- Bullous Pemphigoid**

4- Dermatitis Herpetiformis

5- Pemphigus vulgaris

Q2883. A 22 year old female with some bowel habit change presents with a rash on her buttocks, elbows and knees. It is erythematous with some blistering and it is intensely itchy. A skin biopsy reveals subepidermal blister formation and immunofluorescence reveals IgA present within the papillae. Which of the following is the most appropriate therapy for her?

1- Dairy free diet

2- Oral steroids

**3- Gluten free diet**

4- Topical steroids

5- Elemental diet

Q2884. A 27 year old female who works in a nursing home is referred to the clinic with an itchy rash on her hands. On examination her hands are excoriated with some bleeding points and there is an erythematous papular rash on both hands with some vesicles. On patch testing she is positive for latex. How would you manage this patient long term?

1- Topical steroids

**2- Avoid latex gloves**

3- Antibiotics

4- Oral steroids

5- Topical antifungals

Q2885. A 22 year old presents with itchy purple papules on his wrists and fingers and in his mouth with overlying white reticulate appearance. Which of the following is the most likely diagnosis?

1- Reiters syndrome

**2- Lichen Planus**

3- Dermatitis Herpetiformis

4- Psoriasis

5- Atopic dermatitis

# Chapter 19 2011 September

Q2886. A 68 year old female has recently had a mitral valve replacement. She presents feeling generally unwell, feverish with night sweats and weight loss. On examination she is pyrexial and there is a murmur in the aortic area and inflammatory markers are raised. Blood cultures are taken. What other investigation is most likely to confirm the diagnosis?

1- ECG

2- ESR

3- Transthoracic Echocardiogram

4- Troponin

**5- Transoesophageal Echocardiogram**

Q2887. A 62 year old has had two syncopal episodes. She complains of intermittent palpitations. There is nil of note on examination and her bloods are normal. What is a useful first investigation?

1- Nil required

2- Echocardiogram

3- Exercise tolerance test

4- EEG

**5- 24 hour ECG**

Q2888. A 75 year old presents with shortness of breath on exertion. On further questioning she is unable to lie flat due to breathlessness and has woken up during the night gasping for air. She has a history of hypertension. On examination there is bibasal crackles. The CXR reveals small bilateral pleural effusions, upper lobe diversion and bat wing oedema. What is the most likely diagnosis?

1- Pneumonia

2- Interstitial Lung Disease

3- COPD

4- Cryptogenic fibrosing alveolitis

**5- Pulmonary oedema**

Q2889. A patient has taken an amitriptyline overdose. She is tachycardic and hypotensive and is having short runs of non sustained ventricular tachcardia. Her blood gases reveal a metabolic acidosis. In terms of the non sustained Ventricular tachycardia, what is the most appropriate management?

**1- IV Sodium bicarbonate**

2- IV Magnesium

3- IV Amiodarone 900mg

4- Implantable Defibrillator

5- IV Adenosine 6mg

Q2890. A 45 year old patient who is known to drink excessively presents in acute alcohol withdrawal. On examination he appears malnourished. He is commenced on diazepam. His BM is 4.2mmol/l. What is the next course of action?

1- IV dextrose

**2- Commence IV Thiamine**

3- Liason psychiatry

4- IM glucagon

5- IV magnesium

Q2891. A 45 year old male was brought to A+E. He was found wandering the streets of a city and was unsure of where he was or who he was. He could not recall anything from his past. Which of the following is the most likely diagnosis?

1- Transient Global amnesia

**2- Fugue state**

3- Multiple personality

4- Transient Ischaemic Attack

5- Malingering

Q2892. Which of the following is a contraindication to ECT?

**1- Raised intracranial pressure**

2- Immunocompromised

3- Pregnancy

4- Epilepsy

5- Cardiac pacemaker

Q2893. Which of the following is more suggestive of vascular dementia than other dementias?

1- Sleep wake cycle disturbance

2- Early loss of insight

**3- Seizures**

4- Increased creativity

5- Slow onset

Q2894. Which of the following increases during the acute phase response?

1- Transferrin

2- Insulin growth factor 1

**3- Ferritin**

4- Albumin

5- Caeruloplasmin

Q2895. Which of the following would you not expect to be raised in an acute phase response?

1- Ferritin

2- Caeruloplasmin

**3- Transferrin**

4- CRP

5- Fibrinogen

Q2896. Which of the following does not lead to an increase in PSA level?

**1- UTI**

2- Cycling

3- Ejaculation

4- PR examination

5- Benign prostatic hyperplasia

Q2897. Which of the following would you expect to see on an ECG of a patient with hypercalcaemia?

**1- Shortened QT interval**

2- Tall tented T waves

3- Left axis deviation

4- Prolonged QT interval

5- T wave inversion

Q2898. A patient with gallstones develops pain on the tip of his right shoulder. Which nerve is responsible for the pain?

1- Right vagus

2- C7 root

3- Median

**4- Right phrenic nerve**

5- Axillary nerve

Q2899. Prolactin leads to suppression of which of the following?

1- Thyroid

2- Growth hormone

3- Nil

4- ADH

**5- Oestradiol**

Q2900. What is the dicrotic notch produced by?

1- Opening of mitral valve

2- closure of pulmonary valve

3- Opening of aortic valve

**4- Closure of aortic valve**

5- Closure of mitral valve

Q2901. What is the mechanism of action of sitagliptin?

**1- Dipeptidyl peptidase IV inhibitor**

2- GLP 1 analogue

3- Reduced peripheral insulin resistance

4- PPAR gamma agonist

5- K+ATP channel activator

Q2902. A 32 year old male who has rheumatoid arthritis is wishing to start a family with his partner. However there has been difficulty in conceiving and further investigation reveals a low sperm count. Which of the following drugs is the most likely cause?

1- Azathioprine

**2- Sulfasalazine**

3- Hydroxychloroquine

4- NSAIDs

5- Methotrexate

Q2903. Which one of the following atypical antipsychotics is most likely to cause weight gain?

1- Amisulpiride

2- Risperidone

3- Quetiapine

**4- Olanzapine**

5- Aripiprazole

Q2904. A 68 year old female has recently been commenced on amlodipine for hypertension. Although this has been effective in lowering her blood pressure she cannot tolerate the significant ankle swelling. Which of the following should be utilised as an alternative?

1- Methyldopa

2- Losartan

3- Atenolol

4- Ramipril

**5- Bendroflumethiazide**

Q2905. A patient with hepatitis C presents with arthralgia. He has evidence of purpuric lesions and there is evidence of proteinuria and haematuria. Cryoglobulins are elevated. The rheumatoid factor is monoclonal. What is the most likely diagnosis?

1- Amyloidosis

2- Type 3 cryoglobulinaemia

**3- Type 2 cryoglobulinaemia**

4- Multiple myeloma

5- Type I cryoglobulinaemia

Q2906. In which of the following situations, should a patient not be given low molecular weight heparin prophylaxis antenatally?

1- Previous DVT and proven thrombophilia

**2- First degree relative with history of DVT**

3- Previous pregnancy related DVT but no evidence thrombophilia

4- Previous DVT and first degree relative with history of DVT

5- Recurrent DVT

Q2907. A 60 year old male presents with fatigue, night sweats and weight loss. He has also noticed his stomach feeling bloated and distended. On examination there is evidence of splenomegaly. Bloods reveal a normochromic, normocytic anaemia, elevated white cell counts and slightly elevated platelets. A blood film reveals myeloid cells are various stages of development. Cytogenetic analysis and PCR reveals the Philadelphia chromosome and BCR ABL. What is the most likely diagnosis?

1- Multiple Myeloma

2- Myelofibrosis

3- Chronic lymphocytic leukaemia

4- Acute myeloid leukaemia

**5- Chronic myeloid leukaemia**

Q2908. A patient presents with night sweats, fever and weight loss. She has also noticed a lump in her neck. On examination there is evidence of cervical lymphadenopathy. Which investigation will give the definitive diagnosis?

1- Chest X ray

2- Peripheral blood film

3- CT thorax

**4- Lymph node biopsy**

5- Bone marrow biopsy

Q2909. A patient with chronic venous insufficiency is about to travel to Australia. He has never had a DVT but is concerned about the risk of developing one. He is given compression stockings. He is given advice about exercises to perform during the flight and other general advice. What additional steps should be taken?

1- Warfarin

**2- No further action**

3- Start 150mg aspirin

4- Start 75mg aspirin

5- Low molecular weight heparin

Q2910. A 53 year old male presents as he has been suffering from flushing. This is worst after alcohol and caffeinated drinks. He has intermittent diarrhoea, abdominal pain and wheezing. On examination there is evidence of a right sided abdominal mass. What is the most likely diagnosis?

1- MEN type 1

2- Asthma

**3- Carcinoid Tumour**

4- Lymphoma

5- Phaeochromocytoma

Q2911. A 35 year old female presents with her second DVT. She has also had four miscarriages and has livedo reticularis. She has no other past medical history and is not on any regular medications. Which of the following will be useful in confirming the suspected diagnosis?

1- Protein S level

2- Protein C level

3- Coagulation profile

4- Factor V leiden mutation

**5- Anticardiolipin antibodies**

Q2912. A 32 year old Cypriot female is found to have a hypochromic microcytic anaemia with target cells. Her iron and ferritin are at the higher end of normal and her Hb A2 is 6%. What is the most likely diagnosis?

**1- Beta thalassaemia trait**

2- Alpha thalassaemia minor

3- Sideroblastic anaemia

4- Iron deficiency anaemia

5- Anaemia of chronic disease

Q2913. A 60 year old female is suffering from back pain which has woken her from her sleep for the last few months. She has also noticed feeling thirsty and has been more constipated. Bloods reveal a normochromic normocytic anaemia, thrombocytopenia, leucopenia, renal impairment and hypercalcaemia. What is the most likely diagnosis?

1- B12 deficiency

**2- Multiple myeloma**

3- Amyloidosis

4- Non Hodgkins lymphoma

5- Monoclonal gammopathy of undetermined significance

Q2914. A patient with septicaemia begins to bleed from her nose, ear and venflon sites. A coagulation screen reveals prolonged PT and APTT and a low fibrinogen and platelet count. Given the most likely diagnosis, which investigation will aid in confirming the diagnosis?

1- Blood cultures

2- Nil required

3- Thrombin time

**4- D dimers**

5- Bleeding time

Q2915. What is the the most common cause of male hypogonadism and infertility?

1- Tubular sclerosis

2- Cystic fibrosis

3- Down syndrome

4- Fragile X syndrome

**5- Klinefelters syndrome**

Q2916. A 12 year old boy who has recently been diagnosed with a sensorineural hearing loss presents with haematuria. He has recently had a cold. He is wearing glasses and his mother states the optician said he an abnormality of the lens of his eye. From the following which is the most likely diagnosis?

1- Haemolytic Uraemic Syndrome

2- Minimal change disease

3- Bartter's Syndrome

**4- Alport's syndrome**

5- Bergers syndrome

Q2917. Which of the following is due to a defect in type IV collagen in the glomerular basement membrane?

**1- Alport's Syndrome**

2- Goodpastures syndrome

3- Bartters syndrome

4- Bergers Syndrome

5- Liddles syndrome

Q2918. A 72 year old gentleman with type 2 diabetes mellitus has presented with pyrexia, flank pain and haematuria. Bloods reveal an acute deterioration of his renal function. Urine dipstick reveals blood, protein and low urine specific gravity. An ultrasound suggests hydronephrosis. A CT scan is performed and reveals evidence of renal pelvic filling defects, ring shadows and irregular papillae. What is the most likely diagnosis?

**1- Papillary necrosis**

2- Hydronephrosis

3- Renal stones

4- Pyelonephritis

5- Glomerulonephritis

Q2919. A 45 year old female is admitted with cellulitus requiring IV antibiotics. She is commenced on IV benzylpenicillin and IV flucloxacillin. She is commenced on Diclofenac for pain. After 3 days she she develops pyrexia, arthralgia, maculopapular rash, haematuria and oliguria. Bloods reveal acute renal failure and eosinophilia. A renal biopsy reveals interstitial cellular infiltrate with eosinophils present and variable tubular necrosis. What is the most likely diagnosis?

1- Glomerulonephritis

2- Anaphylaxis

3- Chronic tubulointerstitial nephritis

4- NSAID induced acute tubulointerstitial nephritis

**5- Penicillin induced acute tubulointerstitial nephritis**

Q2920. A 3 year old is brought to the GP as she is thought to be drinking and urinating excessively by her parents. She has recently began wetting the bed again after being potty trained last year. She appears very small for her age. Bloods reveal renal impairment, urinalysis normal and an ultrasound is organised. On ultrasound the kidneys appear small and there is evidence of multiple small medullary cysts. What is the most likely diagnosis?

1- Polycystic kidney disease

2- Posterior urethral valve

**3- Nephronophthisis**

4- Medullary sponge kidney

5- Chronic pyelonephritis

Q2921. Which of the following is not a cause of membranous nephropathy?

**1- Alports syndrome**

2- Lymphoma

3- Gold

4- Systemic lupus erythematous

5- Diabetes

Q2922. A 24 year old is found to have chronic renal failure. There is a history of numerous UTIs as a child. On ultrasound there is evidence of renal scarring. She is hypertensive. What is the most likely diagnosis?

1- Posterior urethral valve

**2- Reflux Nephropathy**

3- Polycystic kidney disease

4- Hypertensive renal disease

5- Pyelonephritis

Q2923. A 66 year old male is brought in with severe pneumonia. He is in type 1 respiratory failure with an O2 level of 6.9 kPa. He is normally fit and well and is only on antihypertensives. He states he does not want to be on a "life support machine". He requires intubation. What should be done next?

1- Stop all management

2- Consent from family

**3- Intubate**

4- CPAP

5- Do not intubate and continue other management

Q2924. A patient is brought in following a collapse. He complained of sudden onset shortness of breath and pleuritic chest pain. On examination his trachea is deviated to the left and there is hyperresonance on the right side of his chest. What is the next appropriate management step?

1- Chest drain

2- CXR

3- Large bore cannula in left second intercostal space mid-clavicular line

**4- Large bore cannula in right second intercostal space mid-clavicular line**

5- CT chest

Q2925. A 50 year old gentleman presents with a dry cough and shortness of breath. On CXR there is numerous nodules. A biopsy is taken and reveals multinucleated Langerhans cells, Birbeck granules and CD1a and S100 protein. What is the most likely diagnosis?

1- Small cell lung cancer

2- Large cell lung cancer

**3- Histiocytosis X**

4- Carcinoid

5- Lung metastases

Q2926. A 33 year old male with HIV presents unwell. He has a cough productive of green sputum, is short of breath and is pyrexial. He is noticed to desaturate on minimal exertion. On examination there is a few crackles bibasally. A chest X ray reveal perihilar bilateral diffuse infiltrates. What is the most likely diagnosis?

1- Staphylococcus aureus pneumonia

2- Mycoplasma pneumoniae pneumonia

3- Klebsiella pneumoniae pneumonia

4- Legionella

**5- Pneumocystis jiroveci pneumonia**

Q2927. A patient who was previously a coal miner is found on chest xray to have numerous small round opacities with normal lung markings. What is the most likely diagnosis?

1- Simple pneumoconiosis category 3

2- Simple pneumoconiosis category 1

3- Silicosis

**4- Simple pneumoconiosis category 2**

5- Progressive massive fibrosis

Q2928. Which of the following is not a feature of ARDS?

**1- Protein low fluid in alveolar space**

2- Bilateral diffuse infiltrates on chest xray

3- Protein rich fluid in alveolar space

4- No evidence of cardiac failure

5- Refractory hypoxia

Q2929. A 25 year old female presents with dry cough, fever and shortness of breath. She has also been suffering from night sweats and malaise. She has also noticed bruise like lesions on her shins. She is found to have an elevated ESR and a CXR reveals bilateral hilar lymphadenopathy, a pleural effusion and evidence of reticulo nodular shadowing in the upper lobes. What is the most likely diagnosis?

1- Rheumatoid arthritis

**2- Sarcoidosis**

3- Tuberculosis

4- Lymphoma

5- Lung cancer

Q2930. A 70 year old patient who was previously a coal miner presents with significant dyspnoea and a cough which is sometimes productive of black sputum. On CXR there is large round fibrotic masses in the upper lobes. What is the most likely diagnosis?

1- Simple pneumoconiosis category 2

2- Simple pneumoconiosis category 1

**3- Progressive massive fibrosis**

4- Simple pneumoconiosis category 3

5- Silicosis

Q2931. Which of the following is most useful in differentiating ARDS from cardiogenic pulmonary oedema?

1- Refractory hypoxia

**2- Pulmonary catheter wedge pressure <19mmHg**

3- Bilateral Infiltrates

4- No history of CCF

5- Acute onset

Q2932. A 75 year old woman, with dementia and poor mobility, from a nursing home is found to have gonorrhoea. How should this be managed?

1- Contact nursing home

2- Nil

3- IM ceftriaxone

**4- Discuss with senior and likely police involvement**

5- Investigate for chlamydia

Q2933. A 24 year old has recently returned from back packing around Asia. He now presents with a one month history of diarrhoea, flatulence, bloating and abdominal cramps. This has been associated with malaise and weight loss. Stool samples are sent and cysts are identified. What is the most likely diagnosis?

**1- Giardiasis**

2- Cholera

3- Coeliac disease

4- Inflammatory bowel disease

5- Amoebiasis

Q2934. A patient is being treated with IV vancomycin and gentamicin for prosthetic valve infective endocarditis. He is not improving and MRSA is suspected. Which of the following is a reasonable addition to the current management?

1- Doxycycline

**2- Rifampicin**

3- Fluconazole

4- Ciprofloxacin

5- Flucloxacillin

Q2935. An 18 year old female is brought to A and E very unwell with a high fever, a macular and erythrodermic rash, myalgia and diarrhoea and vomiting. She is hypotensive. She is thought to have a tampon retained. She is transferred to ITU as she is found to be in Acute renal, liver and respiratory failure. 10 days after the onset there was desquamation of the palms and soles. What is the most likely diagnosis?

**1- Toxic Shock syndrome**

2- Meningococcal septicaemia

3- Scarlet fever

4- Infectious mononucleosis

5- Kawasaki disease

Q2936. A 56 year old male with type 2 diabetes mellitus presents with severe pain in his shin after cutting it in the garden. On examination there is an area of erythema and swelling which is hot and tender to touch. It is extremely painful and tender even out with the erythematous area. He feels unwell and is tachycardic. Given the most likely diagnosis, what initial antibiotic regime is appropriate?

1- IV benzylpenicillin + IV flucloxacillin

2- IV meropenem

**3- IV benzylpenicillin + clindamycin + gentamicin**

4- IV flucloxacillin

5- IV benzylpenicillin

Q2937. A 35 year old female presents with mild fever and malaise. On examination there is evidence of right axillary lymphadenopathy and there is evidence of an excoriation and red crusted papule. She states her new kitten scratched her. What is the most likely diagnosis?

1- Hodgkin's lymphoma

**2- Bartonella henselae infection**

3- Borrelia burgdorferi infection

4- Infectious mononucleosis

5- Toxoplasma gondii infection

Q2938. A patient is commenced on vancomycin, rifampicin and gentamicin for an MRSA infective endocarditis. However the patient has an allergy to vancomycin. Which of the following is an appropriate alternative?

1- Ceftriaxone

2- Fluconazole

3- Metronidazole

4- Meropenem

**5- Daptomycin**

Q2939. Superinfection with which of the following may lead to an acute hepatitis in a patient with existing hepatitis B?

1- Hepatitis C

2- Hepatitis E

3- Hepatitis G

**4- Hepatitis D**

5- Hepatitis A

Q2940. To which of the following data types does the variable with possible values "male" or "female" belong?

1- None of the above

2- Ordinal data

3- Continuous data

4- Discrete data

**5- Nominal data**

Q2941. A research team believe that 5 genes can be used to predict the length of time someone will have the common cold for. 500 patients with colds are studied to measure the length of time they had their cold. How should you analyse the results?

1- Paired t test

**2- Linear regression**

3- Survival analysis

4- F test

5- Chi square testing

Q2942. comes back and it looks like a low grade MALToma. What is the most appropriate management of this patient?

1- Radiotherapy

2- Omeprazole

3- Chemotherapy

4- Oesophagectomy

**5- H pylori eradication**

Q2943. A 38 year old male with known alcohol excess presents after vomiting up large amounts of fresh blood. On examination he is hypotensive and tachycardic and there is evidence of ascites and peripheral stigmata of liver disease. He is fluid resucitated and given IV terlipressin and antibiotics. What is the next step in your management?

1- Colonoscopy

2- Sengstaken tube

3- IV omeprazole

4- IV somatostatin

**5- Upper GI endoscopy and banding**

Q2944. A 68 year old male presents with severe colicky abdominal pain. Surprisingly there is only minimal generalised tenderness and no evidence of guarding. He gives a history of weight loss and pain after eating for the last 6 months. He has previously had a myocardial infarction. His bloods reveal raised inflammatory markers and a metabolic acidosis. What investigation would be most useful for the definitive diagnosis?

**1- CT angiography**

2- Abdominal Xray

3- CT abdomen

4- Amylase

5- Angiography

Q2945. A 68 year old male presents with severe colicky abdominal pain. Surprisingly there is only minimal generalised tenderness and no evidence of guarding. He gives a history of weight loss and pain after eating for the last 6 months. He has previously had a myocardial infarction. His bloods reveal raised inflammatory markers and a metabolic acidosis. What might you see on abdominal Xray which would be more specific of the diagnosis?

1- Free air in the biliary tract

2- Free air under the diaphragm

3- Distended small bowel loops

**4- Thumb printing**

5- Faecal loading

Q2946. A 36 year old female, who has recently been in Safari in Africa, presents with diarrhoea and lower abdominal pain which has been on going for several weeks. Her stools were initially loose however the diarrhoea is now bloody and there is evidence of mucous. A stool sample contains trophozoites and leucocytes. What is the likely organism leading to these symptoms?

1- Salmonella enterica

2- Adenovirus

3- Giardia Lamblia

**4- Entamoeba histolytica 5- C. Difficile**

Q2947. Which of the following is a contraindication to liver biopsy?

1- Transaminases in 1000's

2- INR 1.3

3- BMI of 29

4- Platelets of 100

**5- Extrahepatic biliary obstruction**

Q2948. Which of the following is the most likely finding on clinical examination in a patient with Arnold Chiari malformation?

1- Upbeat nystagmus

2- Nil

3- Rotatory nystagmus

**4- Downbeat nystagmus**

5- Horizontal Nystagmus

Q2949. A 23 year old female presents to her GP with headaches which she states are worse in the morning and last thing at night and on coughing and posture change. She has also been vomiting. She is reassured and given analgesia. She then is admitted to A and E following a generalised tonic clonic seizure. She is found to have 4/5 weakness in right side and upgoing plantars. A CT head reveals a large multicentric mass with surrounding oedema in the left frontal lobe. There is some midline shift, What is the likely diagnosis?

1- Stroke

2- Meningioma

3- Metastatic Disease

4- Parasitic Cyst

**5- Glioblastoma**

Q2950. A 70 year old male with long standing diabetes presents with severe pain in his left thigh. On examination there is marked wasting of his quadriceps on the left side and loss of knee reflex. What is the most likely diagnosis? Meralgia paraesthetica Mononeuritis multiplex

**1- Diabetic amyotrophy**

2- Peripheral neuropathy

3- Autonomic neuropathy

4- Mononeuritis Mulitplex

5- Acute painful neuropathy

Q2951. A 48 year old female is complaining of repeatedly burning her right hand as she is unaware of the temperature. She also has occipital headaches which are worsened by sneezing and coughing. Which of the following is the likely diagnosis?

1- Brachial Plexus Injury

**2- Syringomyelia**

3- Space Occupying lesion

4- Cervical Disc Prolapse

5- Peripheral Neuropathy

Q2952. A 57 year old gentleman is brought to A+E by his wife. She states that he has been repeating himself and was unable to retain what she had just told him. He also could not remember his best friend passing away in the previous week. He knew who he was and who his wife was and remember things from the distant past. This has now completely resolved and he does not recall the event. There was nil of note on examination and bloods were normal. Which of the following is the most likely diagnosis?

**1- Transient global amnesia**

2- Fugue state

3- Stroke

4- TIA

5- Functional Disorder

Q2953. A 22 year old patient is brought to A+E. She was complaining of a headache, malaise, fever and nausea and vomiting one day previously and then suddenly dropped her conscious level. She is dysphasic and has a right hemiparesis. She then develops a focal seizure. A CT shows abnormalities in temporal lobes. A lumbar puncture is performed and reveals a slightly high protein, normal glucose and mononuclear cells. Given the most likely diagnosis, which treatment is it most likely to respond to?

**1- IV aciclovir**

2- Oral aciclovir

3- IV ceftriaxone

4- IV dexamethasone

5- IV amoxicillin

Q2954. reveals a right sided sensorineural hearing loss. What is the most likely diagnosis?

1- Trigeminal neuralgia

**2- Acoustic neurinoma**

3- Otitis Media

4- Perforated Ear drum

5- Long QT syndrome

Q2955. A 24 year old female has been being treated for depression and anxiety. She now presents with worsening of her mood and memory difficulties. She has noticed pain in her legs and feeling her legs jerking. You notice she has an ataxic gait and some odd choreiform movements and occasional myoclonic jerks. She is referred for an MRI which shows high signal in the posterior thalamus. An EEG reveals no abnormalities. What is the likely diagnosis?

1- Sporadic Creutzfeldt Jakob disease

2- Picks Disease

**3- New variant Creutzfeldt Jakob disease**

4- Huntingtons Chorea

5- Depression

Q2956. Which enzyme involved in DNA replication, leads to the creation of a DNA strand via extension of a primer, by the addition of bases according to a template, and also proof reads?

1- DNA primase

2- DNA Ligase

3- Helicase

4- DNA topisomerase

**5- DNA polymerase**

Q2957. A 32 year old gentleman has been undergoing topical treatment for psoriasis for some time. He presents as he has noticed patches of skin which appear thin and lax and which are hypopigmented and shiny with prominent blood vessels. What is the most likely cause of this?

1- Advanced psoriatic plaques

**2- Topical steroid use**

3- Topical tar based cream

4- Dithranol

5- Topical vitamin A analogue

Q2958. A 22 year old presents with itchy purple papules on his wrists and fingers and in his mouth with overlying white reticulate appearance. Which of the following is the most likely diagnosis?

1- Reiters syndrome

2- Dermatitis Herpetiformis

3- Psoriasis

4- Atopic dermatitis

**5- Lichen Planus**

Q2959. A 16 year old female presents with a purpuric rash on her buttocks, arms and back of legs. The lesions began as erythematous macules. She is complaining of arthralgia and abdominal pain with some bloody diarrhoea. She had a cold about one week ago. On dipstick of urine there is evidence of proteinuria and microscopic haematuria. Given the most likely diagnosis, what is the likeliest outcome?

1- Steroids required for full recovery

**2- Full recovery**

3- Chronic kidney disease

4- Recurring episodes

5- Acute renal failure without full recovery

Q2960. A 68 year old male has been suffering from a cough productive of green sputum and shortness of breath He is brought to A and E drowsy and confused. He is found to have a sodium of 115 mmol/L, normal renal function, with a plasma osmolality of 260 mOsmol/kg and urine osmolality of 500 mOsm/kg and urinary sodium of 145 mmol/L. What is the most likely cause of the hyponatraemia?

1- Addisons Disease

2- ARF

3- Hypothyroidism

4- Fluid overload

**5- SIADH**

Q2961. A patient is found to have a cholesterol of 12 mmol/L. He notes that his mother and grandmother had problems with high cholesterol. He is thought to have familial hypercholesterolaemia. Which of the following features is highly suggestive of this?

1- Premature corneal arcus

**2- Tendon Xanthomata**

3- Elevated triglycerides

4- Xanthelasmata palpebrarum

5- Xanthelasma

Q2962. A 30 year old female has not had a period for several months. She has noticed that she has put on wait, has been depressed and constipated and has noticed changes in her skin and hair. Given the most likely cause of amenorrhoea, which of the following would you expect to observe on bloods?

1- Elevated testosterone

2- Elevated LH

3- Low oestradiol

4- Elevated FSH

**5- Hyperprolactinaemia**

Q2963. A 28 year old female presents with irregular periods. She is overweight and has problems with excessive hair and acne. You notice she appears to have broad shoulders and a deep voice. An ultrasound reveals nests of cells throughout the ovarian stroma. Bloods reveal elevated testosterone levels. What is the most likely diagnosis?

1- Polycystic ovarian syndrome

2- Androgen producing tumour

3- Cushings syndrome

**4- Ovarian hyperthecosis**

5- Congenital adrenal hyperplasia

Q2964. Which of the following indicates premature ovarian failure?

1- Elevated LH and low oestrogen levels

2- Elevated LH

3- High prolactin

**4- Elevated FSH and LH levels and low oestrogen**

5- Elevated FSH/LH ratio

Q2965. What is the mechanism of action of bisphosphonates?

1- Inhibits farnesyl pyrophosphate synthase, stimulating osteoblasts activity

**2- Inhibits farnesyl pyrophosphate synthase, inhibiting osteoclasts activity**

3- Inhibits HMG CoA reductase, inhibiting osteoclasts activity

4- Inhibits HMG CoA, stimulating osteoblasts activity

5- Inhibits farnesyl pyrophosphate synthase, stimulating osteoclasts activity

Q2966. A 20 year old female presents as she has never started her periods. On examination you notice she is short in stature, has a webbed neck and widely spaced nipples. She has a low hairline and low set ears. Bloods reveal elevated FSH and LH levels and low oestrogen levels. What is the most likely diagnosis?

1- Pituitary disease

2- Weight loss

3- Pregnancy

**4- Premature ovarian failure**

5- Hypothyroidism

Q2967. A 70 year old male with long standing diabetes presents with severe pain in his left thigh. On examination there is marked wasting of his quadriceps on the left side and loss of knee reflex. What is most useful for the management?

1- B12 supplementation

2- Gabapentin

3- Weight loss

**4- Good glycaemic control**

5- NSAIDs

Q2968. A 32 year old female with type 1 diabetes mellitus presents with yellow, brownish depressed patches on her shin. It began as a reddish brown colour and new patches appear if she bumps her leg. What is the most likely diagnosis?

1- Xanthoma

2- Erythema nodosum

**3- Necrobiosis lipoidica**

4- Rheumatoid nodules

5- Granuloma annulare

Q2969. If a patient has a calcium of 3.5 mmol/L with a T score of -2.7, secondary to hyperparathyroidism, what is the best management?

1- Block and Replace

**2- Surgery**

3- Bisphosphonates

4- HRT or raloxifene

5- Watch and Wait

Q2970. B type natriuretic peptide is likely to be normal in which of the following?

**1- Unstable angina**

2- Pulmonary Embolus

3- Acute STEMI

4- LVF

5- Acute mitral regurgitation

Q2971. A 69 year old gentleman was being treated for a chest infection with antibiotics. He has previous history of myocardial infarction and as well as the current antibiotic course he is also taking aspirin, atorvastatin and perindopril. He then collapses 2 days after the antibiotics began and was taken to A and E. When you examine him he has a BP of 130/80mmHg, heart rate of 80 bpm and he rest of his exam is unremarkable. You notice however on the cardiac monitor he is having short runs of torsade de points. What is the most likely antibiotic that he has been prescribed?

1- Amoxicillin

**2- Clarithromycin**

3- Co amoxiclav

4- Cephalexin

5- Doxycycline

Q2972. An 20 year old student is brought to A and E following a collapse in an a night club. There was no suspicion of illicit drug use. He has had 3 collapse episodes previously. He had regained consciousness after a few minutes. There is nil of note on examination with BP and HR within normal parameters. However, an ECG shows a QT interval of 0.56. Which ion channel is likely to be defective and have caused these signs and symptoms?

1- Chloride

**2- Potassium**

3- Magnesium

4- Sodium

5- Calcium

Q2973. A 30 year old male presents to his GP due to shortness of breath and chest discomfort whilst exercising. On examination there is a double apical impulse and a harsh mid systolic murmur loudest between the apex and the left sternal border. His ECG shows LVH and widespread Q waves. You suspect HOCM, which of the following is associated with increased risk of sudden death?

1- Asymmetrical septal hypertrophy

2- Family history of sudden death

**3- Degree of left ventricular hypertrophy**

4- Age

5- Loudness of murmur

Q2974. clinic for advice. What condition is an absolute contra indication to pregnancy?

1- PFO

2- Bicuspid aortic valve

3- ASD

**4- Primary pulmonary hypertension**

5- Mitral valve prolapse

Q2975. A 68 year old asthmatic presents with shortness of breath. She also has a PMH of hypertension for which she is prescribed ramipril. On examination she is found to have a BP of 130/80mmHg, pulse of 90 irregularly, irregular and bilateral wheeze and normal heart sounds. A CXR reveals cardiomegaly. What is the most appropriate treatment of her AF?

1- Flecainide

2- Atenolol

**3- Digoxin**

4- Verapamil

5- Amiodarone

Q2976. A 68 year old female has recently had an aortic valve replacement. She presents feeling generally unwell, feverish with night sweats and weight loss. On examination she is pyrexial and there is a murmur in the aortic area and inflammatory markers are raised. An echo suggests vegetations. What antibiotics should be started empirically?

**1- Vancomycin, rifampicin and gentamicin**

2- Vancomycin and Gentamicin

3- Flucloxacillin

4- Rifampicin and gentamicin

5- Penicillin and gentamicin

Q2977. A 60 year old male presents with general malaise, pyrexia and night sweats. They have a past history of rheumatic heart disease. On examination there is evidence of a pansystolic murmur. Which is a new clinical finding. What organism is the most likely to have caused these symptoms?

1- Staph. Aureus

2- MRSA

**3- Strep. Viridans**

4- HACEK group

5- Staph Epidermidis

Q2978. An 19 year old who has been generally unwell with a sore throat presents with chest pain worse on inspiration and relieved on sitting forwards. An ECG shows saddle ST elevation in numerous leads and there is a rub on auscultation. What is the most likely diagnosis?

1- EBV

2- STEMI

**3- Pericarditis**

4- Myocarditis

5- Cardiac Tamponade

Q2979. Following a STEMI, which drug is not proven to have a mortality benefit?

**1- Isosorbide mononitrate**

2- Ramipril

3- Atorvastatin

4- Tirofiban

5- Bisoprolol

Q2980. Which of the following suggests the presence of mitral regurgitation as well as mitral stenosis?

1- Raised JVP

2- Localised tapping apex beat

3- Atrial fibrillation

4- Loud P2

**5- Displaced apex beat**

Q2981. clinic due to worsening angina and heart failure and 2 syncopal episodes. He is found to have an ejection systolic murmur loudest at the apex. Which investigation will confirm the most likely diagnosis?

1- Coronary angiography

2- Exercise tolerance test

**3- Echocardiography**

4- ECG

5- Blood cultures

Q2982. A 72 year old gentleman has recently had a mitral valve replacement. He is now complaining of fatigue and shortness of breath. On examination he is pale and his sclera appear yellow. Bloods reveal a low haemoglobin, increased bilirubin, increased reticulocyte count and fragmented red cells on blood film. What is the most likely diagnosis?

1- Infective endocarditis

2- B12 deficiency

3- Cholangitis

**4- Haemolytic anaemia**

5- Iron deficiency anaemia

Q2983. Which of the following might you find on clinical examination in a patient with third degree heart block?

**1- Variable intensity S1**

2- Tachycardia

3- Variable intensity S2

4- Large V wave

5- Steep x and y descent

Q2984. Which of the following is not a feature of hypokalaemia on an ECG?

1- Prolonged QT

2- ST depression

3- U wave

4- Flattened t wave

**5- Delta wave**

Q2985. Which of the following antibodies present in the maternal circulation may lead to congenital heart block?

1- Anti dsDNA

2- Rheumatoid factor

3- ANCA

**4- Anti Ro**

5- Anti Jo1

Q2986. A 19 year old is brought to A+E. He was on a night out 2 nights ago and is described by his friend as a "party animal". He is now acting very oddly. He is clearly hallucinating and is speaking rapidly. He is euphoric and laughing inappropriately. He appears agitated and his affect is blunted. His pupils are dilated and he is tachycardic. What is the most likely diagnosis?

**1- Amphetamine induced psychosis**

2- Heroin use

3- Bipolar disorder

4- Cannibas induced psychosis

5- Schizophrenia

Q2987. A 7 year old boy has multiple motor tics and makes clicking sounds at unpredictable intervals. What is the diagnosis?

1- Autism

**2- Tourettes syndrome**

3- ADHD

4- Normal varient

5- Hyperekplexia

Q2988. A 24 year old male presents to his GP to talk about the messages that he receives through a chip in his fillings. The chip can control his thoughts and his movements. He believes that he is being used by an unknown power for an unknown mission. This has occurred for 4 months but it has only troubled him recently. What is the diagnosis?

1- Personality disorder

**2- Schizophrenia**

3- Depression

4- Normal

5- Bipolar syndrome

Q2989. A 41 year old female presents to her GP with low mood, poor concentration, problems sleeping and no interest in any of her hobbies which she cant shake. She doesnt appear as well dressed as she normally would be and her mini mental state score is 25/30. Blood tests including thyroid function are normal. Which of the following is most likely?

**1- Depression**

2- Early onset dementia

3- Picks disease

4- Alcohol excess

5- Anxiety disorder

Q2990. A 62 year old gentleman with type 2 diabetes mellitus presents unwell with fever, shortness of breath and a cough productive of green sputum. He is found to have a glucose of 21 mmol/L and a sodium of 129 mmol/L. He is only on metformin normally. His urine osmolality is 350 mmol/Kg and urinary sodium is 30 mmol/L. He appears dehydrated. What is the most likely cause of his hyponatraemia?

1- Congestive cardiac failure

2- Spurious result

**3- Osmotic diuresis**

4- Furosemide

5- SIADH

Q2991. Which of the following is most likely to lead to a metabolic alkalosis?

**1- Ectopic ACTH syndrome**

2- Cushings Disease

3- Hyperthyroidism

4- Addisons disease

5- Hypothyroidism

Q2992. A 65 year old patient with chronic renal failure is discovered to have slightly low calcium levels. His phosphate is high and PTH is elevated. What is the most likely cause?

1- Pseudohypoparathyroidism

**2- Secondary Hyperparathyroidism**

3- Hypoparathyroidism

4- Reduced vitamin D absorption

5- Primary hyperparathyroidism

Q2993. Which organ is anterior to the left kidney and is not separated by visceral peritoneum?

1- Spleen

2- Left psoas muscle

3- Left adrenal gland

4- Large intestine

**5- Tail of the pancreas**

Q2994. Which area of the colon is most susceptible to mesenteric ischaemia?

1- Hepatic flexure

2- Rectum

3- Sigmoid colon

4- Caecum

**5- Splenic flexure**

Q2995. A 75 year old gentleman with type 2 diabetes melllitus presents for his retinal screening. On the retinal photograph there is evidence of cotton wool spots and flame haemorrhages. There also appears to be new vessel formation very close to the optic disc. What is the next stage in management?

1- Insulin

2- Referral for fluorescein angiography

**3- Referral for laser photocoagulation**

4- Fenofibrate

5- Optimal glycaemic control

Q2996. A 64 year old male presents with a sudden onset of central vision disturbance. On fundoscopy there is evidence of very small discrete yellow deposits and pale mottled areas. There also appears to be a small focal pale pink yellow elevation at the macula. Which of the following investigations should be performed which will confirm the diagnosis and aid in deciding the management?

1- MRI of eye

2- Optical coherence tomography

3- Slit lamp examination

**4- Fundus fluorescein angiography**

5- Retinal photography

Q2997. Which of the following is not true regarding pulmonary surfactant?

1- Increases pulmonary compliance

2- Hydrophilic and hydrophobic region

3- Lowers surface tension

**4- Produced by type I alveolar cells**

5- Produced by type II alveolar cell

Q2998. Where is B type natriuretic peptide secreted from?

1- Renal mesangium

2- Carotid body

3- Right atrium

4- Left atrium

**5- Ventricles**

Q2999. A 50 year old African man is found to be hypertensive. Which of the following should be used first line?

1- Atenolol

2- Losartan

3- Diltiazem

4- Ramipril

**5- Bendroflumethiazide**

Q3000. What is the mechanism of action of aspirin?

1- Antagonists of glycoprotein IIb/IIIa receptors

**2- Inhibiton of Cyclooxygenase**

3- Irreversibly inhibits ADP receptors on platelets

4- Inhibits factor Xa production

5- Inhibition of lipooxygenase

Q3001. Which of the following is a contraindication to the use of Bupropion?

1- Recent STEMI

2- Diabetes

3- Borderline hypertension

4- Glaucoma

**5- Epilepsy**

Q3002. A 45 year old female who is currently on theophylline for poorly controlled asthma is commenced on treatment for a UTI. The next day she is suffering from nausea and vomiting. On examination she is tachycardic. What antibiotic is she likely to have been commenced on?

1- Amoxicillin

**2- Ciprofloxacin**

3- Co amoxiclav

4- Trimethoprim

5- Nitrofurantoin

Q3003. Which of the following is the most appropriate treatment of renal osteodystrophy?

1- Erythropoietin

2- Calcium supplementation

**3- Alfacalcidol and calcium supplement**

4- Ergocalciferol and calcium supplementation

5- Colecalciferol and calcium supplementation

Q3004. Which of the following chemotherapeutic agents is most commonly associated with peripheral neuropathy?

1- Etoposide

2- Doxorubicin

3- Bleomycin

**4- Vincristine**

5- Cisplatin

Q3005. A 24 year old male has recently been commenced on an anticonvulsant. He has noticed a slight tremor since starting on the medication. What anticonvulsant has most likely been commenced?

1- Ethosuximide

2- Gabapentin

**3- Sodium Valproate**

4- Levetiracetam

5- Carbamazepine

Q3006. Which of the following drugs acts predominantly as a potassium channel blocker?

1- Verapamil

**2- Amiodarone**

3- Digoxin

4- Quinidine

5- Atenolol

Q3007. A 42 year old female who is currently on warfarin for a DVT presents with acute shortness of breath, haemoptysis and pleuritic chest pain. A CTPA confirms a pulmonary embolus and her INR has been therapeutic. What should be done next?

1- Maintain target INR and consider life long warfarin

2- Increase target INR and continue warfarin for an extra 6 months

3- Maintain INR and continue warfarin for an extra 3 months

**4- Increase target INR to 3.5 and consider life long warfarin**

5- Maintain current warfarin therapy

Q3008. A 14 year old male has been unwell with a flu like illness with fever, arthralgia and general malaise. He has also noticed that he easily bruises and has noticed some blood in his urine. On examination he is pyrexial, jaundiced and there is evidence of purpura. Bloods reveal anaemia, thrombocytopenia. raised reticulocyte count, elevated LDH, increased bilirubin and renal failure. A blood film reveals schistocytes. What is the most likely diagnosis?

1- Idiopathic thrombocytopenic purpura

2- Haemolytic uraemic syndrome

3- Haemolytic anaemia

**4- Thrombotic thrombocytopenic purpura**

5- Henoch Schönlein Purpura

Q3009. A 35 year old gentleman undergoes minor surgery and bleeds profusely following this. You note that bloods prior to his surgery reveal a prolonged APTT, normal PT and bleeding time. He states that as a child he would bruise easily and after teeth being extracted he would bleed for a long time. What is the most likely diagnosis?

1- Von willebrands disease

2- Liver disease

3- Haemophilia A

4- Thrombocytopenia

**5- Haemophilia B**

Q3010. Which of the following genes is abnormal in Marfans syndrome?

**1- Fibrillin 1**

2- Collagen type II

3- Collagen type I

4- Collagen type III

5- Fibroblast growth factor 1

Q3011. A 14 year old boy is admitted following an epileptic seizure. This is his first seizure and on examination you note learning difficulties, a bumpy rash on his nose and cheeks and a blood pressure of 135/82 mmHg. His blood results are normal but a urine dipstick reveals trace levels of blood and an ultrasound shows cysts in both kidneys. What is the diagnosis?

**1- Tuberous sclerosis**

2- MEN1

3- Polycystic kidney disease

4- Neurofibromatosis

5- Glioblastoma multiforme

Q3012. A 35 year old male has had loin pain for several months however has never sought medical help. He now presents with severe loin pain and haemturia. He is found to be hypertensive and his bloods reveal renal impairment. He states his father and grandfather had problems with their kidneys and his father died suddenly from "a bleed in the brain". What is the most likely diagnosis?

1- Urinary tract infection

**2- Polycystic Kidney Disease**

3- Medullary sponge kidney

4- Renal stones

5- Tuberous sclerosis

Q3013. A 28 year old female presents to her GP with joint pain , fever, a butterfly rash and fatigue. She has marked peripheral oedema. She is found to be hypertensive, in acute renal failure, low albumin levels and proteinuria. A renal biopsy is performed and reveals focal glomerulonephritis with subendothelial and mesangial immune deposits. What is the most likely diagnosis?

1- Membranous glomeurlonephritis

2- IgA nephropathy

3- Lupus nephritis class II

**4- Lupus nephritis Class III**

5- Lupus nephritis class I

Q3014. Which of the following infections occurring recurrently is a feature of complement deficiency?

1- Giardia lamblia

2- Viral

3- Pneumocystis Jiroveci

4- Mycoplasma pneumoniae

**5- Meningococcal**

Q3015. A 28 year old gentleman has a long history of rhinitis and asthma. However he now presents with haemoptysis. He has also noticed a rash and severe pain which he states feels like sciatica. He is feeling generally unwell with fatigue, myalgia and weight loss. On examination he is hypertensive and there is a purpuric rash. Bloods reveal acute renal failure and elevated inflammatory markers and eosinophil count. Given the most likely diagnosis, which antibody is likely to be present?

1- Rheumatoid factor

2- cANCA

**3- pANCA**

4- Anti Ro

5- Anti dsDNA

Q3016. A 28 year old gentleman has a long history of rhinitis and asthma. However he now presents with haemoptysis. He has also noticed a rash and severe pain which he states feels like sciatica. He is feeling generally unwell with fatigue, myalgia and weight loss. On examination he is hypertensive and there is a purpuric rash. Bloods reveal acute renal failure and elevated inflammatory markers and eosinophil count. What is the most likely diagnosis?

1- Malignancy

2- SLE

3- Polyarteritis Nodosa

4- Wegeners Granulomatosis

**5- Churg Strauss Syndrome**

Q3017. A 28 year old female presents with acute onset of shortness of breath and pleuritic chest pain. She has just recently flew back from Australia . She has no past medical history although she is on the contraceptive pill. On examination there is evidence of a swollen tender left calf. On auscultation of the chest it is clear however she is tachycardic. A CXR reveal nil focal. What is the most likely diagnosis?

1- Pneumothorax

2- Deep vein thrombosis

**3- Pulmonary embolus**

4- Asthma

5- Myocardial infarction

Q3018. Which of the following has been proven to improve survival in COPD?

**1- Long term oxygen therapy**

2- Salbutamol nebulisers

3- Nil

4- Salbutamol in haler

5- Steroids

Q3019. A 52 year old gentleman presents with unwell with a cough productive of green sputum with occasional blood flecks. He is also complaining of shortness of breath and has a cold sore. On examination he is pyrexial, tachypneoic, tachycardic and there is left basal coarse crackles. What is the most likely diagnosis?

1- Pneumonia secondary to coxiella burnetii Mycoplasma pneumoniae

2- Pneumonia due to staphylococcus aureus

3- Pneumonia secondary to H. Influenzae Klebsiella pneumoniae

**4- Pneumonia due to streptococcus pneumoniae**

5- Viral Pneumonia

Q3020. A 32 year old presents with a one week history of malaise, fever, headache, myalgia with a sore throat, dry cough and pleuritic chest pain. On examination there is bibasal crepitations. There is evidence of erythema nodosum and bloods reveal a haemolytic anaemia and cold agglutinins. What is the most likely causative agent?

**1- Mycoplasma Pneumoniae**

2- Influenza B

3- Coxiella Burnetti 4- H. Influenzae

5- Streptococcus Pneumoniae

Q3021. A 25 year old female has an acute asthma attack. She is tachycardic and is tachypnoeic with a respiratory rate of 35. On auscultation she is very wheezy but is beginning to tire. Her peak flow is about one third of her normal. She is commenced on both salbutamol and ipratropium nebulisers and IV hydrocortisone and IV magnesium sulphate however has not greatly improved. Her gases reveal a high normal CO2 level and low normal O2 level on a trauma mask. Which of the following is the next step in her management?

1- IV salbutamol

**2- Intubation and ventilation**

3- IV aminophylline

4- BiPAP

5- CPAP

Q3022. A 42 year old male is admitted for treatment of a community acquired pneumonia. He had been making a good recovery when 3 days into admission he spikes a temperature and is complaining of pleuritic chest pain. A CXR reveals a right sided pleural effusion. What investigation should be performed to confirm the diagnosis?

1- Repeat CXR

2- Blood cultures

**3- Pleural tap**

4- Pleural ultrasound

5- Sputum culture

Q3023. A 22 year old female who has previously suffered from panic attacks presents with acute shortness of breath, palpitations, perioral tingling and paraesthesia in hands and chest tightness. Given the most likely diagnosis, what would you expect to observe on blood gas?

1- Low O2

**2- Low CO2**

3- Metabolic acidosis

4- High CO2

5- High O2

Q3024. What percentage increase in FEV1 post bronchodilator, is required for the diagnosis of asthma?

1- >20%

2- >25%

3- >10%

4- >5%

**5- >12%**

Q3025. A 42 year old with Rheumatoid arthritis presents with increasing dyspnoea and a non productive cough. A CXR reveals diffuse reticular opacities and pulmonary functions tests reveal a restrictive pattern. What is the most likely diagnosis?

1- Bronchiolitis obliterans with organising pneumonia

**2- Interstitial lung disease**

3- Asthma

4- Caplans Syndrome

5- COPD

Q3026. A 45 year old patient with rheumatoid arthritis has relapsing pneumonia which does not respond to antibiotics. A CXR reveals bilateral parenchymal opacities. A lung biopsy is performed and reveals buds of connective tissue within terminal bronchioles and alevolar ducts. What is the most likely diagnosis?

1- COPD

**2- Bronchiolitis obliterans organising pneumonia**

3- Interstitial lung disease

4- Malignancy

5- Caplans syndrome

Q3027. A 35 year old male who is a non smoker presents with increasing shortness of breath. He complains of a productive cough especially over the winter months. Pulmonary function tests reveal an obstructive pattern. He states his father and grandfather both had "problems with their breathing". What is the most likely diagnosis?

1- COPD

**2- Alpha 1 antitrypsin deficiency**

3- Multiple recurrent pulmonary emboli

4- Asthma

5- Malignancy

Q3028. A 52 year old gentleman who is homeless and known to drink excessively presents with fever and a cough productive of green sputum which is blood tinged. A CXR reveals consolidation in the right upper lobe with evidence of cavitation. Which of the following is the most likely causative agent?

1- Streptococcus Pneumoniae

**2- Klebsiella Pneumoniae 3- M. Tuberculosis**

4- Mycoplasma pneumoniae

5- Staphylococcus aureus

Q3029. A 19 year old male presents with dysuria and a mucopurulent discharge from his urethra. The causative agent is a gram negative intracellular diplococci. What is the most likely diagnosis? Syphillis Herpes Simplex

1- Human papilloma virus

2- Chlamydia

3- Syphilis

**4- Gonorrhoea**

5- Herpes simplex virus

Q3030. A patient with HIV presents after noticing several lesions on his legs and his mouth. The lesions are nodular and are brown in colour. Given the most likely diagnosis, what is the causative agent?

1- HTLV 4

2- Human herpes virus 1

**3- Human herpes virus 8**

4- Human papilloma virus 6

5- Human papilloma virus 16

Q3031. A back packer has just returned from India and has noticed some erythematous patches. Some have developed into plaques and ulcers. What is the most likely diagnosis?

1- Lepromatous leprosy

2- Visceral Leishmaniasis

3- Sarcoidosis

**4- Cutaneous Leishmaniasis**

5- Guttate psoriasis

Q3032. Which of the following is a cause of gastroenteritis due to preformed toxins in contaminated food?

1- Salmonella 2- S. aureus

3- Campylobacter Jejeuni 4- E. Coli

5- Shigella

Q3033. A 25 year old man presents with diarrhoea. This came on suddenly and was watery however there is now evidence of mucous and blood. He is also complaining of abdominal cramps and malaise. He does not appear dehydrated and is otherwise fit and well. A stool culture reveals a gram negative bacilli. What is the most likely causative agent?

1- Shigella dysenteriae

**2- Shigella Sonnei**

3- Clostridium difficle

4- Vibrio cholera

5- Enterotoxic E. Coli

Q3034. A 50 year old gentleman with a history of type 2 Diabetes Mellitus and hypertension and who is obese presents with a painful, swollen knee. An X-ray reveals chondrocalcinosis and a joint aspiration is performed and it reveals on microscopy numerous neutrophils and rhomboid-shaped crystals, which are weakly positive birefringent. Which of the following is the most likely diagnosis?

1- Gout

2- Reactive Arthritis

3- Septic arthritis

**4- Pseudogout**

5- Rheumatoid Arthritis

Q3035. A 40 year old male presents with painful fingers. On examination there is evidence of dactylitis and he is tender over his DIPs and there is pitting of his nails. His rheumatoid factor is negative. What is the most likely diagnosis?

1- Rheumatoid arthritis

2- Pseudogout

3- SLE

4- Osteoarthritis

**5- Psoriatic arthritis**

Q3036. A 40 year old man present with acute pain, erythema and swelling over the 1st MTP joint and is diagnosed with gout. He is commenced on allopurinol and represents in a few days with the same presentation. What caused the representation?

1- Inadequately treated gout

**2- Allopurinol**

3- Reactive Arthritis

4- Septic arthritis

5- Pseudogout

Q3037. A 60 year old farmer presents with left hip pain. He first noticed 6 months previously however it has gradually worsened since then. It worsens over the day and is worst at the end of the day or after movement. He does notice some stiffness in the morning. What is the most likely diagnosis?

1- Lyme disease

2- Rheumatoid arthritis

3- Pseudogout

4- Gout

**5- Osteoarthritis**

Q3038. What is the most common finding in blood testing for those with SLE?

**1- Low complement levels**

2- Anti double-stranded DNA

3- ANA

4- Rheumatoid factor

5- Anticardiolipin antibody

Q3039. Which of the following is a feature on Xray of Rheumatoid Arthritis?

1- Loosers Zones

2- Lytic lesions

**3- Periarticular osteopenia**

4- Widened joint space

5- Osteophytes

Q3040. A patient with polymyalgia rheumatica is on a reducing dose of steroids. She is has just dropped from 10mg to 9mg however has had a flare of her symptoms. What is the next course of action?

1- Increase prednisolone to 15mg

2- Increase prednisolone to 40mg

3- No change

4- Increase prednisolone to 15 mg and slow rate of reduction

**5- Increase prednisolone to 10 mg and slow rate of reduction**

Q3041. A patient with Crohns Disease is unresponsive to steroids and mesalazine. What is the next therapy you would introduce?

**1- Azathioprine**

2- Referral for colectomy

3- Methotrexate

4- Infliximab

5- Elemental diet

Q3042. What is true in regards to gamma GT?

1- Used to monitor hepatic disease

2- Isolated increase of GGT in obstructive jaundice

3- Not increased in obstructive jaundice

4- Specific to the liver

**5- Increased GGT levels in alcohol excess and fatty liver**

Q3043. A 55 year old gentleman presents to his GP with intermittent abdominal pain and diarrhoea which is sometimes difficult to flush away. He has also had a cough, fever and has noticed aches and pains in his joints. A biopsy of the duodenum reveals periodic acid Schiff stain positive macrophages with intracellular clumps. What is the most likely diagnosis?

**1- Whipples disease**

2- Carcinoid Syndrome

3- Coeliac disease

4- Bacterial Overgrowth

5- Inflammatory Bowel Disease

Q3044. A 35 year old male who has lived in Barbados for the last few years presents with diarrhoea, which sometimes difficult to flush away. This has caused about 5 kg weight loss. He is very fatigued and feverish at times. He has also noticed some ankle oedema. On examination he looks cachectic. Bloods reveal a macrocytic anaemia, low potassium and calcium levels and albumin levels. A jejunal biopsy reveals incomplete villous atrophy and inflammatory infiltrate. What is the most likely diagnosis?

1- Crohns disease

**2- Tropical sprue**

3- Coeliac disease

4- Tuberculosis

5- Chronic pancreatitis

Q3045. A 52 year old female presents with increasing fatigue over the last few months. She has also noticed pains in the joints of his fingers. She has noticed she is irritable and is having severe mood swings. Recently her periods have stopped. She has also noticed being thirsty and increased urinary frequency. On examination she appears very tanned and there is evidence of hepatomegaly. Given the most likely diagnosis, what is most useful for monitoring response to treatment?

1- Glucose

2- CRP

**3- Ferritin**

4- Transferrin saturation

5- Haemoglobin

Q3046. A patient with ulcerative colitis is found to have deranged LFTs with particularly elevated bilirubin and gamma glutamyltransferase. He is complaining of pruritus. On examination he appears jaundice and there is hepatomegaly. Bloods reveal positive ANCA. What is the most likely diagnosis?

1- Primary biliary cirrhosis

2- Autoimmune hepatitis

3- Non alcohol steatohepatitis

**4- Primary sclerosing cholangitis**

5- Alcohol related liver disease

Q3047. A 68 year old female is brought to her GP by her husband. He states she has become very forgetful of late and is unable to concentrate. He has also noticed over the last few months that she is incontinent of urine and has been walking in an unusual way. On examination there is evidence of gait apraxia and her reflexes are brisk. What is the most likely diagnosis?

1- Picks disease

2- Alzheimers disease

**3- Normal pressure Hydrocephalus**

4- Parkinsons disease

5- Lewy body dementia

Q3048. A 58 year old gentleman who is known to drink excessively, presents with a 2 week history of a progressively worsening headache. This has been associated with nausea and vomiting. You notice he appears drowsy and forgetful and that he has a healing cut and bruising on his head. He states he has been told by his family that he is sleeping more than usual. On examination there is nil signs of meningism but you notice a 4/5 power on the left side. What is the most likely diagnosis?

1- Stroke

2- Migraine

3- Meningitis

**4- Subdural Haematoma**

5- Subarachnoid haemorrhage

Q3049. You are referred a 14 year old boy as he has been noted to be ataxic and dysarthric. On examination you notices he has a unilateral resting tremor and odd spasms in his facial muscles. Blood tests reveal deranged LFTs. Given the most likely diagnosis, which of the following is most useful in the treatment?

1- Tetrathiomolybdate

2- Steroids

3- Selenium

**4- Penicillamine**

5- Venesection

Q3050. A 24 year old female has a history of migraines. On a visit to her optician he notes that one of her pupils is larger than the other and does not react to light. There is no abnormal findings in eye movement, acuity or on fundoscopy. Which of the following explains her pupillary findings?

1- Horners syndrome

2- Brain tumour

**3- Holmes Adie pupil**

4- Argyll Robertson pupil

5- Third cranial nerve palsy

Q3051. Which of the following contains circular double stranded DNA?

1- Nucleus

2- Smooth Endoplasmic reticulum

**3- Mitochondria**

4- Golgi apparatus

5- Rough Endoplasmic reticulum

Q3052. A 40 year old male presents with arthralgia and syncopal episodes. An ECG reveals complete heart block. He returned from a hill walking holiday 3 months ago and has noticed an annular, indurated erythematous areas on his legs. What is the most likely diagnosis?

1- SLE

2- Tuberculosis

3- Granuloma annulare

**4- Lyme disease**

5- Psoriasis

Q3053. A 35 year old presents with red scaly patches on her face, scalp and hands. On examination there is evidence of red plaques on her face, hands and scalp with some bald patches. Some of the patches show evidence of scarring and discolouration with hyperpigmentation at the border. He is complaining of vague joint pain. Given the most likely diagnosis, what treatment is useful if systemic treatment is required?

1- Methotrexate

2- PUVA

3- Prednisolone

**4- Hydroxychloroquine**

5- Azathioprine

Q3054. A five year old boy is brought to the GP after noticing lesions on his neck and trunk. On examination there are several smooth, elevated, reddish papules with a central punctum. What is the most likely diagnosis?

1- Warts

**2- Molluscum Contagiosum**

3- Lichen Planus

4- Spitz Naevus

5- Herpes Simplex virus

Q3055. A 52 year old female has developed a rash on her hands, feet which is gradually spreading centrally, predominantly on the extensor surfaces. She has been unwell for a few days before with a cold and the rash developed suddenly. On examination there is numerous circular lesions approximately 2cm in diameter which have a purpuric or pale centre. She states that new lesions develop whenever if there is any trauma to a site. Which of the following is most commonly associated with the development of these skin lesions?

1- Tuberculosis

2- Herpes Zoster virus

**3- Herpes simplex virus**

4- Lymphoma

5- Mycoplasma pneumoniae

Q3056. A 26 year old female presents to her GP with fatigue. This has been a problem now for several months since she had viral illness. Her exercise tolerance has greatly decreased and she feels very fatigued following any exertion. She has intermittently been suffering from headaches and is sleeping about 12 hours a day but still feels unrefreshed. She also complains of back pain with no clear preciptating factor, Examination and blood tests are normal. Given the most likely diagnosis, which of the following treatments is most likely to be useful?

1- Thyroxine

2- Nil specific

3- Iron supplementation

**4- Graded exercise therapy**

5- Corticosteroids

Q3057. Glycosylated haemoglobin reflects control of diabetes over the previous:

1- 12 months

**2- 2 to 3 months**

3- 9 months

4- 6 months

5- 1 month

Q3058. A 28 year old pharmacist is brought to A and E after feeling very anxious and sweaty and appearing confused. Her BM was measured and was 2.8. A formal lab glucose revealed a glucose of 2.5, high insulin level and virtually undetectable Cpeptide. What is the most likely diagnosis?

**1- Factitious insulin induced hypoglycaemia**

2- Type 1 Diabetes Mellitus

3- Insulinoma

4- Anorexia

5- Liver Disease

Q3059. Which of the following is not useful in the management of thyroid eye disease?

1- Radiotherapy

2- Steroids

**3- Radioiodine therapy**

4- Ciclosporin

5- Orbital Decompression

Q3060. A patient who is ICU is found to have a slightly low TSH, low T3 and normal T4. She has no history of thyroid disease. What is the most likely cause?

1- Pituitary Hypothyroidism

2- Hypothyroidism

**3- Euthyroid sick syndrome**

4- Subclinical hyperthyroidism

5- Hyperparathyroidism

Q3061. A 60 year old male presents with headaches. On examination he appears to have very large hands and a prominent jaw. He is hypertensive and appears to be sweating profusely. Which of the following is useful in the first instance for the diagnosis?

1- Glucose levels

2- Short synacthen

3- Growth hormone levels

4- Cortisol levels

**5- IGF1 levels followed by growth hormone levels before and after glucose tolerance test**

Q3062. A 60 year old presents with tiredness, depression, polyuria, polydipsia and constipation. He is found to have a calcium of 3.0mmol. His phosphate level is low and alkaline phosphatase high. Urinary calcium excretion is also elevated. What is the most likely diagnosis?

**1- Primary hyperparathyroidism**

2- Sarcoidosis

3- Metastases

4- Familial Hypocalciuric Hypercalcaemia

5- Myeloma

Q3063. A 2 year old is brought to his GP. His parents have noticed he is very small for his age. He has only just begun to walk and is not keen to. He complains of pain when he is walking. On examination there is evidence of frontal bossing of the skull and bowing of the legs. Bloods reveal a slightly low calcium, low phosphate and high alkaline phosphatase. There is increased urinary phosphate. What is the most likely diagnosis?

**1- X linked dominant hypophosphataemic rickets**

2- Vitamin D resistant rickets type 2

3- Osteomalacia

4- X linked recessive hypophosphataemic rickets

5- Vitamin D resistant rickets type 1

# Chapter 20 2012 January

Q3064. A patient with central crushing chest pain associated with autonomic features has 1 mm of ST elevation in leads II,III and aVF. How do you manage this patient?

1- Heparin only

2- Thrombolysis

3- PCI

**4- Aspirin + clopidogrel +LMWH and repeat ECG**

5- Repeat ECG

Q3065. A 52 year old gentleman is 5 days post STEMI when he starts to develop chest pain. It is pleurtic in nature and worse on lying down. He is pyrexial and generally unwell. On examinatio he is tachycardic and there is evidence of a pericardial friction rub. On ECG there is widespread ST elevation. Given the most likely diagnosis, what management should be initiated?

1- Thrombolysis

2- Iv antibiotics

**3- NSAIDs**

4- PCI

5- IV heparin

Q3066. An 20 year old student is brought to A and E following a collapse in an a night club. There was no suspicion of illicit drug use. He has had 3 collapse episodes previously. He had regained consciousness after a few minutes. There is nil of note on examination with BP and HR within normal parameters. However, an ECG shows a QT interval of 0.56. Which ion channel is likely to be defective and have caused these signs and symptoms?

1- Calcium

**2- Potassium**

3- Chloride

4- Sodium

5- Magnesium

Q3067. A 68 year old female has recently had an aortic valve replacement. She presents feeling generally unwell, feverish with night sweats and weight loss. On examination she is pyrexial and there is a murmur in the aortic area and inflammatory markers are raised. An echo suggests vegetations. What antibiotics should be started empirically?

**1- Vancomycin, rifampicin and gentamicin**

2- Flucloxacillin

3- Rifampicin and gentamicin

4- Penicillin and gentamicin

5- Vancomycin and Gentamicin

Q3068. A 81 year old male with a history of hypertension and inferior MI is seen in the cardiology clinic due to worsening angina and heart failure and 2 syncopal episodes. He is found to have an ejection systolic murmur loudest at the apex and on listening to his chest he has findings in keeping with heart failure. His bloods are unremarkable. Which of the following is the most likely to be causing his syncopal episodes and worsening angina and heart failure?

1- Atrial Fibrillation

**2- Aortic Stenosis**

3- Renal Failure

4- Mitral regurgitation

5- Coronary Artery Disease

Q3069. You are asked to review a 52 year old gentleman who has become suddenly unwell and hypotensive. He had an STEMI 2 days previously. On examination he has a pansystolic murmur lowest at the lower left sternal border and a raised JVP. Further investigation reveals a high right atrial pressure and low left atrial pressure. What is the most likely diagnosis?

1- Aortic regurgitation

2- Aortic Stenosis

3- Mitral regurgitation

**4- Tricuspid regurgitation**

5- VSD

Q3070. A 28 year old male presents with shortness of breath on exertion. On examination he is very tall and thin with long fingers. On auscultation the chest is clear however you note an early diastolic murmur which is low pitched best heard at the aortic area and lower left sternal edge (louder in expiratio n) and a late diastolic murmur heard at the apex. What is the most likely diagnosis?

1- Aortic stenosis

**2- Aortic regurgitation**

3- Mitral Regurgitation

4- Mitral valve prolapse

5- Mitral stenosis

Q3071. A 58 year old gentleman has severe central crushing chest pain for about half an hour which is finally relieved by GTN. There is evidence of ST depression in the anterolateral leads and his troponin is elevated. He is treated with aspirin, clopidogrel and LMWH. What is the next appropriate management?

1- Exercise Tolerance Test

2- Cardiac Rehabilitation

3- Coronary Angiography as an outpatient

4- Discharged with Outpatient cardiac clinic follow up

**5- Urgent coronary angiography as an inpatient**

Q3072. A 65 year old male with type 2 diabetes mellitus presents with severe crushing central chest pain associated with autonomic features. This lasted for one hour before it was relieved by GTN spray. An ECG shows anterolateral ST depression and his troponin is elevated, He develops further chest pain at rest despite being commenced on aspirin, clopidogrel, atenolol and LMWH. An urgent coronary angiography is planned. What other management should be initiated?

1- IV heparin

2- Tenecteplase

3- Streptokinase

**4- Abciximab**

5- None required

Q3073. Which of the following is a risk factor for the development of Torsades de pointes?

1- Hypermagnesaemia

2- Hyponatraemia

3- Hypercalcaemia

**4- Hypothermia**

5- Hyperkalaemia

Q3074. A 72 year old gentleman with a history of ischaemic heart disease, has been unwell with diarrhoea and vomiting. He complains of intermittent palpitations and dizziness. He is brought to hospital and starts to complain of an episode and is found to have a broad complex tachycardia with the QRS complexes appearing to twist around the baseline. His blood pressure is 140/90 and GCS is 15. How would you manage this patient?

1- Atropine

2- Adrenaline

3- Adenosine

4- Amiodarone

**5- IV Magnesium**

Q3075. A 24 year old female is 22 weeks pregnant. She attends an antenatal clinic appointment. She has been very well throughout her pregnancy and has no past medical history. On examination there is no evidence of oedema. Her blood pressure is 110/70 mmHg and her heart rate is 88 bpm. Auscultation reveals an ejection systolic murmur over the aortic area which radiates to the carotids and varies on posture changes. This was not evident at her previous visit and she is not complaining of chest pain, palpitations or shortness of breath. Her chest is clear.

1- Bicuspid Aortic Valve

2- Aortic Stenosis

3- Infective Endocarditis

**4- Innocent murmur**

5- Mitral Regurgitation

Q3076. A 19 year old is brought to A+E. He was on a night out 2 nights ago and is described by his friend as a "party animal". He is now acting very oddly. He is clearly hallucinating and is speaking rapidly. He is euphoric and laughing inappropriately. He appears agitated and his affect is blunted. His pupils are dilated and he is tachycardic. What is the most likely diagnosis?

**1- Amphetamine induced psychosis**

2- Bipolar disorder

3- Schizophrenia

4- Heroin use

5- Cannibas induced psychosis

Q3077. A patient with schizophrenia believes that his body is being controlled by an alien. What is the best description of this?

1- Delusions of reference

2- Somatic delusion

3- Persecutory delusions

4- Grandiose delusions

**5- Delusions of control**

Q3078. A 71 year old lady was attacked 9 months ago. Ever since she describes flash backs and nightmares about the event. She avoids going out unless she has to and feels anxious a lot of the time. What is the likely diagnosis?

1- Depression

2- Agoraphobia

3- Generalised anxiety disorder

**4- Post traumatic stress disorder**

5- Acutre stress disorder

Q3079. A 29 year old woman complains of headaches, upset stomach, jaw pain, sore muscles and difficulty sleeping. Full examination reveals no medical issues. She doesnt accept that nothing was found during the investigations and seeks a second opinion. What is the diagnosis?

1- Conversion disorder

**2- Somatisation disorder**

3- Psychosis

4- Personality disorder

5- Hypochondriac

Q3080. A 24 year old male presents to his GP to talk about the messages that he receives through a chip in his fillings. The chip can control his thoughts and his movements. He believes that he is being used by an unknown power for an unknown mission. This has occurred for 4 months but it has only troubled him recently. What is the diagnosis?

1- Depression

2- Bipolar syndrome

3- Normal

4- Personality disorder

**5- Schizophrenia**

Q3081. A 24 year old female presents to her GP with feeling anxious. On further questioning she states she is constantly ruminating about things. On numerous occasions she constantly obsesses about whether or not she has locked the doors or switched off the gas and she has to go back three or four times to check if this is the case. She has also had repeated images of violent acts which she tries to resist but cannot. What is the most likely diagnosis?

1- Anxiety

**2- Obsessive compulsive disorder**

3- Obsessional personality

4- Schizophrenia

5- Depressive disorder

Q3082. Which of the following is not commonly found in a manic episode of bipolar disorder?

1- Pressured speech

2- Low attention span

3- Elevated mood

**4- Visual Hallucinations**

5- Hypersexuality

Q3083. Which of the following is a method for identifying the 3D structure of proteins?

**1- X-ray Crystallography**

2- Polymerase Chain Reaction

3- Western Blotting

4- Southern Blotting

5- In Situ Hybridisation

Q3084. Which of the following may be an early clinical presentation of an Acoustic Neuroma?

1- Unilateral wasting of Tongue and deviation to one side

2- Unilateral Conductive Hearing Loss

3- Bilateral Facial Weakness

**4- Reduced or Absent Corneal Reflex**

5- Brisk Jaw Jerk

Q3085. A 55 year old female who is on methotrexate for rheumatoid arthritis presents to her GP with a painful red right eye. This came on suddenly and her eye is mildly painful and watering. Her vision has not been affected. On examination there is evidence of redness in the right upper quadrant of the right eye and this is tender. Her pupil is normal as is her conjunctivae. Visual acuity is unchanged and eye movements are normal. Which of the following is the most likely diagnosis?

**1- Episcleritis**

2- Acute Glaucoma

3- Conjunctivitis

4- Corneal Abrasion

5- Scleritis

Q3086. What compensatory mechanism occurs to counteract dehydration?

1- Increased sodium excretion

2- Increased renal blood flow

3- Reduced cortisol levels

4- Reduced ADH levels

**5- Increased aquaporin 2 in collecting ducts**

Q3087. A 36 year old female presents to her A+E department with an overdose. She states that on Friday evening she took 10 tablets then she took another 15 on Saturday and a further 15 on Sunday evening and she then presented 2 hours later. Which of the following is the next appropriate management?

1- Commence N-acetyl cysteine if PT is > 1.5

2- Take paracetamol levels and commence Nacetyl cysteine if level above high risk treatment line

3- Take bloods at 4 hours post overdose and await results before treatment

4- Take paracetamol levels and commence Nacetyl cysteine if level above normal treatment line

**5- Commence N-acetyl cysteine**

Q3088. What is the mechanism of action of Ciclosporin?

1- Inhibits calcineurin reducing Interleukin-10 levels

2- Anti -TNF-alpha

3- Binds to T cell receptor

**4- Inhibits calcineurin reducing Interleukin-2 levels**

5- Inhibits calcineurin increasing Interleukin-2 levels

Q3089. A 58 year old gentleman with type 2 diabetes mellitus has tirofiban administered before undergoing primary coronary intervention. Which of the following best describes the mechanism of action of tirofiban?

1- Factor Xa inhibitor

2- Vitamin K antagonist

3- Activation of antithrombin III

4- ADP receptor Inhibitor

**5- GP IIb/IIIa Inhibitor**

Q3090. Which of the following is the best method of monitoring a paracetamol overdose?

1- Full Blood Count

**2- Prothrombin Time**

3- INR

4- Liver Function Tests

5- Renal Function

Q3091. What is the main advantage of the use of capecitabine compared to 5-fluorouracil in the treatment of colorectal cancer?

1- Capecitabine is twice as effective as 5- fluorouracil

2- Less anaphylactic reactions

3- Less immunosuppression

**4- Oral form**

5- Shorter Infusion time

Q3092. In polycythaemia Rubra Vera which of the following mutational analysis should be performed?

1- p53

**2- JAK2**

3- BCR-ABL

4- BRCA1

5- NOTCH1

Q3093. A 14 year old male has been unwell with a flu like illness with fever, arthralgia and general malaise. He has also noticed that he easily bruises and has noticed some blood in his urine. On examination he is pyrexial, jaundiced and there is evidence of purpura. Bloods reveal anaemia, thrombocytopenia. raised reticulocyte count, elevated LDH, increased bilirubin and renal failure. A blood film reveals schistocytes. What is the most likely diagnosis?

1- Haemolytic anaemia

2- Haemolytic uraemic syndrome

3- Henoch Schönlein Purpura

4- Idiopathic thrombocytopenic purpura

**5- Thrombotic thrombocytopenic purpura**

Q3094. A patient with hepatitis C presents with arthralgia. He has evidence of purpuric lesions and there is evidence of proteinuria and haematuria. Cryoglobulins are elevated. The rheumatoid factor is monoclonal. What is the most likely diagnosis?

1- Type 3 cryoglobulinaemia

**2- Type 2 cryoglobulinaemia**

3- Amyloidosis

4- Type I cryoglobulinaemia

5- Multiple myeloma

Q3095. A 50 year old gentleman presents with pruritus. This is most marked after a hot shower. He is also having intermittent headaches and dizziness. Over the last few days he has noticed swelling of his left calf. Bloods reveal a raised haemoglobin, increased packed cell volume and mildly elevated platelets and white cells. JAK2 mutational analysis is positive. Which of the following is the most appropriate treatment?

1- Aspirin

**2- Hydroxycarbamide**

3- Chlorambucil

4- Aspirin and Venesection

5- Venesection

Q3096. A 47 year old male is undergoing chemotherapy for high grade non Hodgkins Lymphoma with bulky disease. Which of the following should be administered before commencing chemotherapy?

1- IV Hydration

2- Nil required

3- Dexamethasone

4- IV sodium bicarbonate

**5- IV Hydration and Allopurinol**

Q3097. A 60 year old female is suffering from back pain which has woken her from her sleep for the last few months. She has also noticed feeling thirsty and has been more constipated. Bloods reveal a normochromic normocytic anaemia, thrombocytopenia, leucopenia, renal impairment and hypercalcaemia. What is the most likely diagnosis?

1- B12 deficiency

2- Amyloidosis

3- Monoclonal gammopathy of undetermined significance

4- Non Hodgkins lymphoma

**5- Multiple myeloma**

Q3098. A 56 year old presents two weeks post renal transplant with peripheral oedema. Her creatinine has doubled since its last measurement and she is hypertensive. What treatment should be commenced initially?

1- Mycophenolate Mofetil

2- Ciclosporin

3- Azathioprine

**4- IV Methylprednisolone**

5- Oral prednisolone

Q3099. A 61 year old male presents with severe lower back pain, lethargy , anorexia and peripheral oedema. He is found to be hypercalcaemic and have renal impairment and nephrotic syndrome. A renal biopsy reveals deposits which after staining with congo red appear as apple green birefringence under polarised light. There is is evidence of a paraprotein band on serum electrophoresis. What is the most likely diagnosis?

1- AA amyloidosis secondary to multiple myeloma

2- MGUS

**3- AL amyloidosis secondary to multiple myeloma**

4- Nephrotic syndrome

5- Primary amyloidosis

Q3100. A 37 year old male has a history of rhinorrhoea , recurrent sinusitis, joints pains and cough with occasional haemoptysis. On dipstick of his urine there is evidence of proteinuria and haematuria. Bloods reveal acute renal failure and autoantibodies reveal a positive cANCA. Given the likely diagnosis, what would you expect to find on renal biopsy?

1- Focal glomerulosclerosis

2- Mesangial proliferation

3- IgA deposition in basement membrane

**4- Segmental pauci immune crescentic necrotising glomerulonephritis**

5- Focal segmental glomerulonephritis

Q3101. In pregnancy, how should a UTI be treated?

1- No treatment required

2- Trimethoprim

3- Encourage increased water intake

4- Amoxicillin

**5- Cefalexin**

Q3102. A 45 year old patient has been recently diagnosed with Hodgkin's Lymphoma. He presents with bilateral swelling of his legs up to his knees. This is slightly worse on the left than the right. Bloods reveal a slightly raised creatinine, hypoalbuminaemia and a cholesterol of 10.0 mmol/l. A 24 hour urinary protein reveals a proteinuria of 5.0 g. An ultrasound revealed a left DVT and normal kidneys. The peripheral oedema and proteinuria responds to steroids. A renal ultrasound is normal. Which of the following is the most likely diagnosis?

1- Membranous Nephropathy

2- Thrombophilia

3- IgA nephropathy

4- Focal segmental glomerulosclerosis

**5- Minimal Change Disease**

Q3103. A 24 year old is found to have chronic renal failure. There is a history of numerous UTIs as a child. On ultrasound there is evidence of renal scarring. She is hypertensive. What is the most likely diagnosis?

1- Pyelonephritis

**2- Reflux Nephropathy**

3- Hypertensive renal disease

4- Polycystic kidney disease

5- Posterior urethral valve

Q3104. A 65 year old male with COPD presents with an acute exacerbation. He is commenced on salbutamol and ipratropium nebulisers and given IV hydrocortisone. However blood gases reveal a pO2 of 8.0 kPa and a pCO2 of 10.0 kPa and a pH of 7.2. What is the next appropriate step in management?

1- CPAP

**2- BiPAP**

3- Intubation for ventilation

4- IV Doxapram

5- Reduce O2 therapy

Q3105. Which of the following is not a contraindication for surgical treatment of a bronchial carcinoma?

1- FEV1 <1.5l

2- Malignant pleural effusion

3- Brain Metastases

4- Widespread lymph node involvement

**5- Paraneoplastic syndrome**

Q3106. A patient presents with a life threatening asthma attack. Which of the following is the most worrying feature?

1- Previously required oral steroids

2- PO2 of 9.8

3- Previous ITU admission

4- Consolidation on CXR

**5- PCO2 of 5.6 kPa**

Q3107. Which of the following organisms is one of the most common colonising agents in cystic fibrosis?

1- Streptococcus pneumoniae

**2- Pseudomonas aeruginosa**

3- Burkholderia cepacia

4- Mycobacteria species

5- Moraxella catarrhalis

Q3108. A 32 year old presents with a one week history of malaise, fever, headache, myalgia with a sore throat, dry cough and pleuritic chest pain. On examination there is bibasal crepitations. There is evidence of erythema nodosum and bloods reveal a haemolytic anaemia and cold agglutinins. Given the most likely diagnosis, what treatment should be commenced?

1- Doxycycline

2- Ciprofloxacin

**3- Erythromycin**

4- Co amoxiclav

5- Amoxicillin

Q3109. Which of the following organisms is associated with a cavitating upper lobe pneumonia?

1- Pneumocystis jiroveci

2- Strep. Pneumoniae

3- Mycoplasma pneumoniae

4- Staphylococcus Aureus

**5- Klebsiella pneumonia**

Q3110. A 25 year old female has just returned from travelling around South America. She presents with a 3 day history of malaise and myalgia. This was followed by a severe headache and fever which came on suddenly. She has a dry cough and is complaining of abdominal pain. She has noticed a rash on her abdomen and axillae and this is starting to spread peripherally. On examination there is a non confluent erythematous rash on the abdomen and axillae. What treatment should be commenced?

1- Fluoroquinolone

**2- Doxycycline**

3- Quinine

4- Chloroquine

5- Amoxicillin

Q3111. A 22 year old student has just returned from south America. He presents with pyrexia, jaundice, abdominal pain and vomiting. He has noticed bleeding from his nose and gums. This was preceded by a flu like illness with headache, fever and myalgia especially back pain. He thought he was recovering and then the other symptoms began. What is the most likely diagnosis?

1- Dengue Fever

**2- Yellow Fever**

3- Malaria

4- Typhoid Fever

5- Ebola Virus

Q3112. A patient with HIV presents confusion, a seventh nerve palsy and seizures. He is pyrexial and on fundoscopy there is evidence of multiple yellow white patches. A CT of the head reveals multiple bilateral cerebral lesions which are ring enhancing. What is the most likely diagnosis?

1- Cerebral tumour

2- Cerebral metastases

**3- Toxoplasmosis**

4- CMV

5- Candidiasis

Q3113. A patient with hepatitis B is found to have anti Hbc, HbsAg and anti Hbe. What does this indicate?

1- Previous exposure to hep B but this has cleared

2- Acute infection

**3- Chronic hepatitis B infection with low infectivity**

4- Chronic hepatitis B infection with high infectivity

5- Previous immunisation

Q3114. A back packer has just returned from India and presents to his GP with a sore throat. He initially felt like he had a cold and then noticed a very severe sore throat and difficultly swallowing. He feels pyrexial and unwell. On examination there appears to be a pseudomembrane over his pharynx and he has enlarged cervical lymph nodes giving him a bull neck appearance. What is the most likely diagnosis?

1- Infectious mononucleosis

2- Oral candidiasis

**3- Diphtheria**

4- Viral tonsillitis

5- Bacterial tonsillitis

Q3115. A patient presents with jaundice. He has recently came back from Asia. He states he has not been feeling well for some weeks with a flu like illness. He has intermittent diarrhoea, fever, malaise and a headache. On examination there is tender hepatomegaly. What is the most likely diagnosis?

1- Infectious mononucleosis

2- CMV

3- Hepatitis B

**4- Hepatitis A**

5- HIV Seroconversion

Q3116. An 18 year old male who has just started university presents with a sore throat, malaise and fever. On examination there is tonsillar enlargement. They appear exudative and there is petechiae on his palate. There is evidence of cervical lymphadenopathy and hepatomegaly. Bloods reveal an elevated ESR and deranged LFTs. What is the most likely diagnosis?

1- Streptococcal Throat Infection

2- Viral Pharyngitis

**3- Infectious Mononucleosis**

4- Hepatitis B

5- HIV Seroconversion

Q3117. A patient presents with jaundice and abnormal LFTs. He has been diagnosed with a hydatid cyst. Which of the following is the most likely causative agent?

1- Hymenolepis Nana

2- Taenia Saginata

3- Diphyllobothrium latum

4- Taenia Solium

**5- Echinococcus granulosus**

Q3118. A 42 year old male with Acute Myeloid Leukamia who has recently underwent chemotherapy is found to be pyrexial. He feels generally unwell. He is commenced on IV gentamicin and tazocin however 2 days later he is still unwell and pyrexial. Which of the following should you then consider commencing?

1- Add IV meropenem

2- Add IV vancomycin

3- IV fluconazole

**4- Amphotericin B**

5- Nil

Q3119. A 55 year old male has been admitted to ITU with severe sepsis. He had required ventilation and multiple antibiotics due to resistance. He has recovered and has been transferred to the ward after 2 weeks in ITU. Unfortunately he becomes unwell and feverish. He has a cough productive of green sputum. A CXR confirms pneumonia. You are concerned about possible MRSA pneumonia. Which of the following is an appropriate antibiotic regime?

**1- Meropenem and gentamicin and vancomycin**

2- Ceftriaxone

3- Amoxicillin and Metronidazole

4- Co-amoxiclav and clarithromycin

5- Vancomycin

Q3120. In an outbreak of meningococcal meningitis, which of the following should be utilised as chemoprophylaxis for contacts?

1- Doxycycline

**2- Rifampicin**

3- Ceftriaxone

4- Penicillin V

5- Cefotaxime

Q3121. Feltys Syndrome is most commonly associated with which HLA type?

1- HLA-B51

2- HLA-B27

3- HLA-Cw

**4- HLA-DRW4**

5- HLA-DQ2

Q3122. A 69 year old female with a previous history of rheumatoid arthritis, currently on methotrexate, presents with painful, swelling of her right knee. She is also pyrexial and generally unwell. What is the most likely diagnosis?

1- Flair of Rheumatoid Arthritis

2- Pseudogout

3- Gout

4- Osteoarthritis

**5- Septic Arthritis**

Q3123. What HLA type is associated with rheumatoid arthritis?

**1- HLA DR4**

2- HLA DQ2

3- HLA B27

4- HLA B51

5- HLA cW

Q3124. A 24 year old male has recently had unprotected sex. He presents with arthritis, red watery eyes and dysuria. He also has noticed plaques on his hands. What is the most likely diagnosis?

**1- Reiters syndrome**

2- Stills disease

3- Seronegative arthritis

4- UTI

5- Conjunctivitis

Q3125. Which of the following is a feature on Xray of Rheumatoid Arthritis?

1- Lytic lesions

2- Osteophytes

3- Widened joint space

4- Loosers Zones

**5- Periarticular osteopenia**

Q3126. Which of the following is a poor prognostic sign in Rheumatoid Arthritis?

1- Juxta articular osteopenia

2- Age >60

**3- Early bony erosions**

4- Rheumatoid factor negative

5- Early morning stiffness

Q3127. A 25 year old female who works as a gym instructor presents with a three week history of severe right shoulder pain. The pain is throbbing in nature and had an acute onset with the pain worst at this time and it has gradually improved. It is exacerbated by any movement of the shoulder. His arm is held in adduction and internal rotation. There is weakness of the deltoid and serratus anterior muscle. There is normal sensation and reflexes are normal. Which of the following is the most likely diagnosis?

1- Amyotrophic Lateral Sclerosis

2- Trauma

3- Supraspinatus tendonitis

**4- Brachial Neuritis**

5- Adhesive Capsulitis

Q3128. A patient known to have systemic sclerosis presents with chronic diarrhoea. How would you manage this?

1- Codeine Phosphate

2- Stool culture

**3- Metronidazole**

4- Colonoscopy

5- Loperamide

Q3129. A 25 year old female of African origin presents due to intermittent diarrhoea, crampy abdominal pain, bloating , flatulence and nausea. She thinks it may be worse after she eats certain foods. Bloods are normal and a flexible sigmoidoscopy is performed and is normal. What is the next stage in the management?

1- Gluten free diet

2- Upper GI endoscopy

3- Colonoscopy

**4- Dairy free diet**

5- Advice regarding IBS

Q3130. A 25 year old presents with diarrhoea. She has had a previous ileal resection for Crohns Disease. She has also had two recent episodes of loin to groin pain. Her bloods are normal including her inflammatory markers What is the most likely diagnosis?

1- IBS

**2- Short bowel syndrome**

3- Flare of Crohns Disease

4- Bacterial Overgrowth

5- Coeliac Disease

Q3131. A 52 year old female presents with increasing fatigue over the last few months. She has also noticed pains in the joints of his fingers. She has noticed she is irritable and is having severe mood swings. Recently her periods have stopped. She has also noticed being thirsty and increased urinary frequency. On examination she appears very tanned and there is evidence of hepatomegaly. Given the most likely diagnosis, what is most useful for monitoring response to treatment?

1- CRP

2- Transferrin saturation

3- Glucose

**4- Ferritin**

5- Haemoglobin

Q3132. A 20 year old has been having bloody diarrhoea for the last 2 months. She is brought to A and E as she is very unwell, moving her bowels about 15 times a day even through the night and is having abdominal pain. On examination she is very tender generally in the abdomen and she is hypotensive and tachycardic. How would you next manage this patient?

**1- Fluid resuscitation and AXR**

2- Inflammatory markers

3- IV antibiotics

4- IV steroids

5- Flexible Sigmoidoscopy

Q3133. Lactulose aids in reducing hepatic encephalopathy. What is the mechanism for this?

1- Asks as a barrier preventing ammonia absorption

2- Osmotic laxative

3- Alkalinises the faeces

**4- Neutralisation and less absorption of ammonia**

5- Increased motility

Q3134. A 52 year old female presents with fatigue. She has also noticed being very itchy and the whites of her eyes becoming yellow. She has deranged LFTs and her anti mitochondrial antibody is positive. What is the most likely diagnosis?

1- Haemochromatosis

2- Primary sclerosing cholangitis

3- Wilsons disease

**4- Primary biliary cirrhosis**

5- Autoimmune hepatitis

Q3135. A 19 year old female presents with a few month history of abdominal pain, watery diarrhoea and weight loss. She has noticed on a few occasions redness of her eye causing some discomfort and bruise like lesions on her shins. A colonoscopy is performed and reveals a cobblestone appearance. What is the most likely diagnosis?

**1- Crohns disease**

2- Colorectal carcinoma

3- Irritable bowel syndrome

4- Gastroenteritis

5- Ulcerative colitis

Q3136. A patient with ulcerative colitis is found to have deranged LFTs with particularly elevated bilirubin and gamma glutamyltransferase. He is complaining of pruritus. On examination he appears jaundice and there is hepatomegaly. Bloods reveal positive ANCA. What investigation is most useful in confirming the diagnosis?

1- Anti smooth muscle antibodies

2- ERCP

3- Ultrasound

4- Liver biopsy

**5- MRCP**

Q3137. A 19 year old presents with a 2 month history of bloody diarrhoea, urgency, tenesmus and crampy abdominal pain. A colonoscopy is performed and reveals superficial ulceration with a friable mucosa and biopsy shows goblet cell depletion and crypt abscesses. What is the most likely diagnosis?

1- Gastroenteritis

2- Coeliac Disease

3- Crohn's Disease

**4- Ulcerative colitis**

5- Whipples disease

Q3138. A 48 year old woman presents with dysphagia. This is both to liquids and solids. She has also associated retrosternal pain and she does sometimes regurgitate food. She has not had any weight loss. There is no past medical history and she is well otherwise. There is nil of note on examination and bloods are normal. What is the most likely diagnosis?

1- Hiatus Hernia

**2- Achalasia**

3- Pharyngeal Pouch

4- Oesophageal Cancer

5- GORD

Q3139. How do you monitor someone presenting with Guillain Barre Syndrome?

1- PEFR

2- Oxygen Saturation

3- Regular Obs

**4- Vital capacity**

5- FEV1/FVC

Q3140. A 37 year old joiner is referred to the clinic as he has a 6 month history of lower back pain. It had come on suddenly 6 months ago. He now has shooting pain down the back of both legs worse on left than right. He also has numbness in his left foot. On examination the pain is reproduced at 20 degrees straight leg lift on left. He has reduced sensation over the sole of his foot of his foot and his ankle reflex is diminished and plantars are down going. Which of the following is the likely diagnosis?

1- Mechanical Back pain

**2- L5/S1 disc prolapse**

3- L4/L5 disc prolapse

4- Cauda equina syndrome

5- Discitis

Q3141. What is the most appropriate drug to commence in Trigeminal Neuralgia?

1- Amitriptyline

2- Pregabalin

**3- Carbamazepine**

4- Gabapentin

5- Diazepam

Q3142. If there is evidence of a right superior homonymous quadrantanopia, where is the likely site of the lesion?

1- Optic chiasm

2- Right optic nerve

3- Left occipital lobe

4- Left parietal lobe

**5- Left temporal lobe**

Q3143. A 32 year old female has a three day history of severe occipital headache and neck pain following a minor injury. She is then brought to A+E following development of pain and numbness on the right side of her face, dysarthria, hoarseness, dysphagia and vertigo. There is left sided loss of pain and temperature sensation and weakness. She is ataxic and there is evidence of nystagmus and a right sided horners syndrome. What is the most likely diagnosis?

1- Ischaemic stroke

2- Cervical disc prolapse

3- Subarachnoid haemorrhage

4- Haemorrhagic stroke

**5- Vertebral artery dissection**

Q3144. A 29 year old male presents to his GP after having recurrent episodes whereby he awakes after just falling to sleep with a feeling of being unable to move. He has been feeling down and has been increasingly sleepy throughout the day. He has been very stressed at work. What is the likely diagnosis?

1- Adjustment disorder

**2- Narcolepsy**

3- Nocturnal seizures

4- Nightmares

5- Depression

Q3145. A 22 year old patient is brought to A+E. She was complaining of a headache, malaise, fever and nausea and vomiting one day previously and then suddenly dropped her conscious level. She is dysphasic and has a right hemiparesis. She then develops a focal seizure. A CT shows abnormalities in temporal lobes. A lumbar puncture is performed and reveals a slightly high protein, normal glucose and mononuclear cells. Given the most likely diagnosis, which treatment is it most likely to respond to?

1- Oral aciclovir

2- IV dexamethasone

3- IV amoxicillin

**4- IV aciclovir**

5- IV ceftriaxone

Q3146. Polymerase chain reaction (PC R) is a tool utilised to replicate specific sections of nucleic acid, which of the statements below relate to reverse transcriptase PCR (RT-PC R) ?

1- The DNA produced during the reaction contains introns

2- The DNA produced during the reaction is known as genomic DNA

**3- It can be used to quantify mRNA**

4- Oligonucleotides primers used are specific for the sense strand of the DNA

5- The enzyme used during the reaction (Taq polymeras e) is thermolabile

Q3147. Which of the following utilises gel electrophoresis to identify a specific protein?

1- Polymerase chain reaction

2- Northern blotting

3- Southern blotting

4- In situ hybridisation

**5- Western blotting**

Q3148. A 22 year old presents with a rash. On examination there are small salmon pink papules with a fine scale which are drop like on her trunk and proximal arm and legs. She had suffered from tonsillitis two weeks previously. What is the most likely diagnosis?

1- Pityriasis Rosea

**2- Guttate Psoriasis**

3- Lichen Planus

4- Dermatitis

5- Secondary Syphillis

Q3149. A 28 year old male presents with very non specific features. He had not felt well for several months with tiredness, anorexia, nausea and weight loss. He also felt dizzy on standing and noticed his skin including his mucosa becoming darker. His bloods revealed a hyponatraemia and hyperkalaemia. What investigation should be performed to confirm the diagnosis?

1- ACTH level

2- Thyroid function tests

**3- Short Synacthen test**

4- Random cortisol

5- Low dose dexamethasone suppression test

Q3150. A 25 year old gentleman presents to his GP. He is concerned as he has small testes and has a low libido and impotent. He also complains of having breasts despite him being slim and does not need to shave often. What is the most likely diagnosis?

1- Turners Syndrome

2- Exogenous oestrogen

3- Complete androgen insensitivity syndrome

4- Fragile X syndrome

**5- Klinefelters syndrome**

Q3151. A patient who has hyperparathyroidism and a prolactinoma, is at increased risk of which of the following tumours?

1- Lung adenocarcinoma

2- Carcinoid

3- Colorectal carcinoma

4- Neurofibroma

**5- Pancreatic endocrine tumour**

Q3152. A 62 year old female presents with lethargy, feeling depressed, intolerant to cold and weight gain and constipation. On examination she is bradycardic and her hands, feet and face appear puffy. There is no evidence of a goitre. She is found to have raised TSH and low free T4. Her antithyroid peroxidase antibodies are positive. What is the most likely diagnosis?

**1- Atrophic thyroiditis**

2- TSH deficiency

3- Hashimotos thyroiditis

4- Hypopituitarism

5- Iodine deficiency

Q3153. A 65 year old gentleman is on metformin and gliclazide however continues to have a HbA1c of 8.7%. He is not keen to commence insulin. He has previously had an episode of left ventricular failure. His BMI is 21. Which of the following should be considered next?

1- Exenatide

2- Insulin

3- Monitor

**4- Sitagliptin**

5- Pioglitazone

Q3154. If a patient has a calcium of 3.5 mmol/L with a T score of -2.7, secondary to hyperparathyroidism, what is the best management?

1- HRT or raloxifene

2- Block and Replace

**3- Surgery**

4- Watch and Wait

5- Bisphosphonates

Q3155. A 37 year old male has difficult to control hypertension despite being on three antihypertensives. His bloods reveal hypokalaemia, low renin level, high aldosterone and a 24 hour aldosterone excretion was elevated. What is the most likely diagnosis?

1- Carcinoid syndrome

2- Essential Hypertension

3- Poor compliance

4- Cushings syndrome

**5- Conns syndrome**

Q3156. A 33 year old woman presents with amenorrhoea and has noticed reduced axillary and pubic hair. She has also noticed a change in her vision. On examination she has a bitemporal hemianopia. Her prolactin levels are over 2000mg/L. What is the most likely diagnosis?

1- Diabetes

2- Acromegaly

**3- Macroprolactinoma**

4- Microprolactinoma

5- PCOS

Q3157. A 65 year old was diagnosed with type 2 diabetes mellitus the previous year. He has ongoing problems with biliary colic. He has recently lost weight and is complaining of loose malodorous stools up to 5 times a day. He is suffering from nausea and abdominal pain. He is found to be anaemic. What is the most likely diagnosis?

1- Gastrinoma

2- VIPoma

3- Insulinoma

**4- Somatostatinoma**

5- Glucagonoma

Q3158. A 48 year old female is suffering from oligomenorrhoea. She is also complaining of tiredness, dizziness, weight gain, cold intolerance, constipation, hair and nail changes and is found to have low potassium and glucose on bloods. Her FSH, LH and oestrogen levels are low. What is the most likely cause of her amenorrhoea?

1- Polycystic ovarian syndrome

**2- Panhypopituitarism**

3- Addisons

4- Primary ovarian failure

5- Hypothyroidism

Q3159. A 65 year old male with lung cancer is found to have symptomatic hyponatraemia with a sodium of 123mmol/l. Further investigation reveals this is most likely due to SIADH. He is put on fluid restriction however unfortunately after one week his sodium is only 125mmol/l. Which of the following should be considered next for management?

1- IV saline 1.8%

**2- Demclocycline**

3- IV saline 0.9%

4- Slow Sodium

5- Desmopressin

Q3160. A 65 year old male is found incidentally to have an ejection systolic murmur. An Echo confirms aortic stenosis with a gradient of 80mmHg and left ventricular dysfunction. How should this patient be managed?

1- Nil specific avoid vasodilators

2- Aortic valvuloplasty

**3- Aortic valve replacement**

4- Anticoagulation

5- Monitored as an outpatient

Q3161. Which of the following is associated with a the worst prognosis in those with aortic stenosis?

1- Mild aortic regurgitation

2- Moderate aortic valve calcification

**3- Left Ventricular Failure**

4- Left Ventricular Hypertrophy

5- Asymptomatic disease

Q3162. A temporary single chamber pacing wire is being inserted for a patient with complete heart block. Where should the lead be positioned?

1- Bundle of HIS

2- Left Atrium

3- Left Ventricular Apex

**4- Right Ventricle Apex**

5- Right Atrium

Q3163. Which of the following is a contraindication to ECT?

**1- Raised intracranial pressure**

2- Immunocompromised

3- Cardiac pacemaker

4- Epilepsy

5- Pregnancy

Q3164. Which of the following could be used to distinguish dementia from severe depression

**1- Grasp reflex**

2- Weight gain

3- Weight loss

4- Visual disturbance

5- Testosterone level testing

Q3165. A patient with previous history of cold sores presents with a painful right eye. On examination there is evidence of conjuntival injection in the right upper quadrant and this area is exquisitely tender. Fluorescein dye is applied and reveals a dendritic lesion. What is the most likely diagnosis?

1- Foreign body

2- Scleritis

3- Episcleritis

**4- Herpes simplex ulcer**

5- Bacterial ulcer

Q3166. A 30-year-old presents to her GP with reduced vision in her left eye. She has previously presented with abnormal sensory changes in her leg which have now resolved. On examination her visual acuity is greatly reduced and there is evdence of a relevant afferent pupil defect. All movements of the eye are very painful. On fundoscopy and neurological examination there is nil of note. What is the most likely diagnosis?

1- Retinal vein occlusion

2- Thyrotoxicosis

**3- Optic neuritis**

4- Orbital tumour

5- Age related macular degeneration

Q3167. A 57 year old male presents to his GP with a sudden onset severe frontal headache associated with nausea and vomiting. He also had pain in his right eye and was complaining of visual blurring. On examination there is no evidence of neck stiffness or focal neurology. The right eye appears red with a ciliary flush and a non reactive mid dilated pupil. Which of the following is the most likely diagnosis?

1- Conjunctivitis

**2- Acute Closed Angle Glaucoma**

3- Meningitis

4- Scleritis

5- Anterior Uveitis

Q3168. A 64 year old male presents with a sudden onset of central vision disturbance. On fundoscopy there is evidence of very small discrete yellow deposits and pale mottled areas. There also appears to be a small focal pale pink yellow elevation at the macula. Which of the following investigations should be performed which will confirm the diagnosis and aid in deciding the management?

1- Slit lamp examination

**2- Fundus fluorescein angiography**

3- MRI of eye

4- Optical coherence tomography

5- Retinal photography

Q3169. The repolarization of cardiac muscle action potential is predominantly due to which of the following?

1- Sodium current

2- L type Calcium current

3- Sodium/Potassium pump

4- Closure of potassium channels

**5- Potassium current**

Q3170. Which of the following provides the best description of how alcohol leads to a diuresis?

1- Increased aquaporin 2 channel insertion in apical membrane of distal tubules and collecting ducts

2- Vasodilation of afferent arteriole

3- Inhibition of Na-K-2Cl channels

4- Increased BNP secretion

**5- Reduction of aquaporin 2 channel insertion in apical membrane of distal tubules and collecting ducts**

Q3171. Which of the following anticonvulsants is most likely to cause hyponatraemia?

1- Phenytoin

2- Gabapentin

3- Sodium valproate

**4- Carbamazepine**

5- Lamotrigine

Q3172. A 68 year old has been commenced on an antihypertensive medication. She is now complaining of ankle swelling. Which of the following drugs is the most likely cause?

1- Ramipril

2- Bendroflumethiazide

3- Furosemide

4- Atenolol

**5- Amlodipine**

Q3173. Which of the following is a contraindication to the use of a bisphosphonate?

1- BMI 19

2- Age 21

3- Patients with previous gastric surgery

4- Corrected Calcium of 2.5

**5- eGFR <30**

Q3174. Which of the following is the main mechanism of action of metformin?

1- Increased peripheral glucose uptake

**2- Reduced Hepatic Glucose Output**

3- Increased Lipolysis

4- Increased insulin secretion from pancreas

5- Reduced peripheral insulin sensitivity

Q3175. A 55 year old male has been commenced on a third antihypertensive. His most recent bloods reveal hyponatraemia and hypokalaemia. Which of the following is the most likely culprit?

1- Methyldopa

2- Amlodipine

**3- Bendroflumethiazide**

4- Ramipril

5- Atenolol

Q3176. A 22 year old female is admitted to A+E. Her friends think she has "taken something". She appears euphoric and can't sit still. She is being sexually inappropriate. You note her pupils are dilated. Which of the following is the most likely culprit?

1- Ethanol

**2- Cocaine**

3- Diazepam

4- Heroin

5- Morphine Sulphate

Q3177. A 53 year old female who has bipolar depression presents with nausea, vomiting, diarrhoea and abdominal cramps. She also appears tremulous and confused. A lithium level is measured and reveals a level of 2.5 mmol/l. She is also found to be in acute renal failure. Which of the following is the most appropriate management?

1- Sodium Bicarbonate

**2- Haemodialysis**

3- Activated Charcoal

4- Gastric Lavage

5- Peritoneal Dialysis

Q3178. A 35 year old female presents with fatigue, aches and pains, night sweats and pruritus. She also has diarrhoea, shortness of breath and a dry cough. Bloods reveal a markedly elevated eosinophil count, thrombocytopenia and elevated ESR. There is no clear evidence to suggest allergies, asthma or parasitic infection and a bone marrow biopsy does not suggest malignancy. Which of the following is the most likely diagnosis?

1- Eosinophil malignancy

2- Allergic alveolitis

3- Asthma

4- Parasitic Infection

**5- Hypereosinophilic syndrome**

Q3179. A patient with chronic lymphocytic leukaemia develops hypersplenism and pancytopenia. How should this be managed?

1- Bone marrow transplantation

2- Corticosteroids

3- Chemotherapy

4- Radiotherapy

**5- Splenectomy**

Q3180. A patient post operatively is found to have a prolonged APTT, high normal PT, prolonged TT and normal reptilase. What does this indicate?

1- DIC

2- Von Willebrands disease

**3- Contamination of sample with heparin**

4- Liver disease

5- Dysfibrinogenaemia

Q3181. A 12 year old girl presents with profuse diarrhoea. It was initially watery and then became bloody. She was unwell with fever, abdominal pain, petechial rash and vomiting. Bloods reveal a low haemoglobin, LDH and bilirubin, low platelets and acute renal failure. Coombs test is negative. What other features would likely be found on blood film?

1- Howell Jolly bodies

**2- Fragmented Red Cells**

3- Bite Cells

4- Ellipocytes

5- Target cells

Q3182. Imatinib is utilised in the management of Chronic Myeloid Leukaemia. What is its mechanism of action?

1- PPAR gamma inhibitor

2- Tyrosine Kinase Activator

**3- Tyrosine Kinase inhibitor**

4- PPAR gamma activator

5- Tyrosine kinase receptor blocker

Q3183. What is the chance of a healthy adult being a carrier of cystic fibrosis if his brother is affected by the condition?

1- 1 in 4

2- 1 in 2

**3- 2 in 3**

4- 100%

5- 1 in 3

Q3184. A 21 year old man presents to his GP after dislocating his shoulder several times. On examination his joints are hypermobile, his skin elasticity is normal, there is no bruising and laboratory investigations are normal. He is tall but his arm span is normal. What is the likely diagnosis?

1- Marfan syndrome

**2- Benign hypermobile syndrome**

3- Ehlers Danlos syndrome

4- MASS phenotype

5- Loeys Dietz syndrome

Q3185. An asymptomatic female is found to be a carrier of haemophilia A. What is the chance of her having a son with Haemophilia if the father is not affected?

1- No chance

2- 25%

3- Less than 1%

**4- 50%**

5- 100%

Q3186. An 18 year old has bilateral ptosis, restricted eye movements, opthalmoplegia, retinitis pigmentosa and AV block. What is the diagnosis?

1- Chronic progressive external ophthalmoplegia

2- Myotonic dystrophy

3- Pearson syndrome

4- Myaesthenia Gravis

**5- Kearns Sayre syndrome**

Q3187. What is the the most common cause of male hypogonadism and infertility?

1- Fragile X syndrome

2- Tubular sclerosis

3- Cystic fibrosis

4- Down syndrome

**5- Klinefelters syndrome**

Q3188. A blood film shows Heinz bodies. What is the likely underlying condition?

1- Autoimmune haemolytic anaemia

**2- Glucose 6 phosphate dehydrogenase deficiency**

3- Sickle Cell Anaemia

4- Hereditary spherocytosis

5- Haemophilia A

Q3189. Which phase of mitosis does chromatin condense into a chromosome?

1- Metaphase

2- Telophase

3- Anaphase

**4- Prophase**

5- Interphase

Q3190. In which of the following is positive RET oncogene associated with the sporadic form?

1- Medullary Thyroid Carcinoma

2- Anaplastic Thyroid Carcinoma

3- Follicular Thyroid Carcinoma

**4- Papillary Thyroid Carcinoma**

5- MEN 1

Q3191. A 70 year old male with previous radiation therapy for colorectal carcinoma presents with non specific symptoms of weight loss, malaise, nausea and dull abdominal and back pain. He has also noticed increased frequency and hesitancy of urination. Bloods reveal a normochromic anaemia, increased ESR and renal failure.. His renal failure does not improve with fluids and an ultrasound is organised. This reveals a retroperitoneal mass. What is the most likely diagnosis?

1- Amyloidosis

2- Recurrence of colorectal carcinoma

3- Aortic aneurysm

**4- Retroperitoneal fibrosis**

5- Pancreatic carcinoma

Q3192. A patient is admitted with decompensated liver disease and tense ascites. His bloods reveal an acute renal failure. He is not on any nephrotoxic drugs. He had been previously on spironolactone and furosemide for prophylaxis of ascites however these were stopped some months ago. His blood pressure is 130/80 mmHg and his renal failure does not respond to fluids. A urinalysis shows a trace amount of protein but nil else. An ultrasound of the renal tract shows no evidence of obstruction. Given the most likely diagnosis, what treatment should initiated?

**1- Terlipressin and albumin**

2- Albumin

3- Increased rate of IV fluids

4- Terlipressin

5- Broad spectrum antibiotics

Q3193. For a patient aged 76 with a history of diabetes and mild renal disease, with a blood pressure of 128/70, what is his risk of contrast nephropathy?

1- 7.5%

2- 60%

3- 14%

**4- 25%**

5- 1%

Q3194. A patient presents with haematuria, loin pain and on examination there is evidence of an abdominal mass on the left side. A CT reveals several masses in the left kidney but no evidence of any distant metastases. Given the most likely diagnosis, what is the treatment of choice?

**1- Surgical removal with or without radiotherapy and/or chemotherapy**

2- Tumour embolisation

3- Sunitinib

4- Interleukin 2 or interferon alpha

5- Radiotherapy and/ or chemotherapy

Q3195. Spironolactone is an aldosterone antagonist. Where in the kidneys does aldosterone have its effect?

1- Thin ascending loop of henle

2- Proximal convoluted tubule

3- Descending loop of henle

**4- Distal convoluted tubule**

5- Thick ascending loop of henle

Q3196. Which of the following is not a cause of normal anion gap metabolic acidosis?

1- Ammonium Chloride Ingestion

2- Addisons

3- Proximal renal tubular acidosis

**4- Ketoacidosis**

5- Distal renal tubular acidosis

Q3197. A patient is found to be in acute renal failure with a potassium of 6.8mmol/L. Her ECG shows tall tented T waves. She is commenced on cardiac monitoring and is given insulin dextrose infusion and salbutamol nebulisers. Which other treatment should be given?

1- Repeat Potassium

2- Calcium resonium

3- Further insulin dextrose

4- Sodium bicarbonate

**5- Calcium Gluconate**

Q3198. How are the majority of hereditary complement deficiencies inherited?

**1- Autosomal recessive**

2- Mitochondrial

3- X linked dominant

4- Autosomal dominant

5- X linked recessive

Q3199. A child has recurrent pyogenic infection. What is the most likely diagnosis?

1- Killer T cell deficiency

2- C2 deficiency

3- B cell deficiency

4- Helper T cell deficiency

**5- Mannose binding lectin deficiency**

Q3200. Which of the following is involved in in a tuberculin skin reaction?

**1- Interferon Gamma**

2- Immune Complex Deposition

3- Interleukin 10

4- NK Cells

5- Plasma Cells

Q3201. Which of the following confirms anaphylaxis over angiooedema if there is any doubt of the diagnosis?

**1- Elevated Serum Mast Cell Tryptase**

2- Hypereosinophilia

3- Rash

4- Neutrophilia

5- Facial Oedema

Q3202. A 20 year old male with anaphylaxis is brought to A+E with facial and tongue swelling and wheeze. He has a venflon in situ. Which of the following must be administered immediately?

1- IV chlorphenamine

**2- IM adrenaline**

3- IV adrenaline

4- Nebulised salbutamol

5- IV corticosteroids

Q3203. Which of the following is most likely to be associated with cholesterol embolisation?

1- Neutropenia

2- Leucocytosis

**3- Eosinophilia**

4- Neutrophilia

5- Lymphocytosis

Q3204. A 22 year old male has just returned from Africa and presents with painful inguinal lymphadenopathy. He states he had noticed a painless ulcer on his penis about one week ago and then he noticed very tender lumps in his groins. The lymph nodes on examination are tender and fixed and the skin overlying is a dusky erythematous colour. Some of them are fluctuant. What is the most likely diagnosis?

1- Chancroid

**2- Lymphogranuloma venereum**

3- Genital warts

4- Herpes simplex virus

5- Syphilis

Q3205. Which of the following does not cause a bloody diarrhoea? 1- E. Coli

**2- Cholera leads to profuse watery diarrhoea whilst the others can cause bloody diarrhoea.**

3- Campylobacter

4- Salmonella

5- Shigella

Q3206. A 22 year old male has recently had unprotected sex and has notices the development of a firm lesion on his penis. He states it begin as a small bump which then ulcerated and the became a firm lesion. It is not painful. He has associated inguinal lymphadenopathy which is not painful. You suspect syphilis however his EIA, FTA abs, TPHA and VDRL are negative. Which other test if positive will confirm early primary syphilis?

1- Repeat VDRL in a few weeks

2- Blood cultures

3- Negative dark ground microscopy

**4- Positive dark ground microscopy**

5- CSF sample

Q3207. A 64 year male was treated with clindamycin for skin boils. These have resolved however a nasal swab reveals MRSA which is PantonValentine Leukocidin positive. Which of the following is the most appropriate treatment?

**1- Chlorhexidine wash and Nasal Mupirocin**

2- Retreat with Rifampicin

3- Nil required

4- Retreat with Rifampicin and Doxycycline

5- Treat with flucloxacillin

Q3208. A 72 year old female has been diagnosed with tuberculosis. Her 24 year old granddaughter has been living with her. She has not previously had a BCG vaccination. What is your next management step for her granddaughter?

1- Isoniazid Preventative Therapy

2- Nil required

3- Mantoux test and if positive administer BCG

**4- Mantoux Test and if negative administer BCG**

5- Administer BCG

Q3209. A 62 year old presents with pain and swelling of her carpal metacarpal and distal interphalangeal joints. X-rays are performed and shows erosions of a gulls wing pattern. There is no osteophytes or Juxta-articular osteopaenia. Although ESR is slightly elevated, rheumatoid factor and all other autoantibodies are negative. What is the most likely diagnosis?

1- Rheumatoid arthritis

2- Psoriatic arthritis

**3- Erosive osteoarthritis**

4- Pseudogout

5- SLE

Q3210. A 34 year old immigrant presents with severe thoracic back pain. It is associated with fever, weight loss and night sweats. On examination there is kyphosis. An x-ray reveals vertebral destruction and narrowed joint space. Bloods reveal raised inflammatory markers and a raised ESR. Calcium levels are low. What is the most likely diagnosis?

1- Bony Metastases

**2- Potts disease**

3- Osteoporosis

4- Fracture

5- Multiple myeloma

Q3211. A 50 year old man presents with joint pain affecting his knee and wrist. He has been feeling generally unwell. On examination there is evidence of a target shaped rash on his shin and there is generalised lymphadenopathy. Which investigation will be helpful for the diagnosis?

1- Blood culture

2- Inflammatory markers

3- Skin biopsy

4- Autoantibodies

**5- Antibody titre for Borrelia burgdorferi**

Q3212. A 50 year old gentleman with a history of type 2 Diabetes Mellitus and hypertension and who is obese presents with a painful, swollen knee. An X-ray reveals chondrocalcinosis and a joint aspiration is performed and it reveals on microscopy numerous neutrophils and rhomboid-shaped crystals, which are weakly positive birefringent. Which of the following is the most likely diagnosis?

**1- Pseudogout**

2- Rheumatoid Arthritis

3- Septic arthritis

4- Reactive Arthritis

5- Gout

Q3213. What is the most characteristic finding on Xray of a patient with ankylosing spondylitis?

1- Widened disc space

2- Narrowed disc space

**3- Subchondral bony sclerosis at sacroiliac joints**

4- Scoliosis

5- Osteophytes

Q3214. A 62 year old female with known osteoarthritis and diabetes presents with sudden swelling and pain in her left knee. It is hot, red and tender. What investigation should be performed?

1- Blood culture

2- Xray of knee

3- Analgesia

**4- Joint aspiration for gram stain, microscopy and culture**

5- Joint fluid microscopy

Q3215. What would you find in a patients blood results who is suffering from Feltys Syndrome?

1- Rheumatoid Factor

2- High platelet count

**3- Normocytic normochromic anaemia**

4- Neutrophilia

5- High reticulocyte count

Q3216. A 37 year old who has a long standing history of back pain and kyphosis is complaining of shortness of breath on exertion. There is crepitations at the apices of the lungs and an Xray of the spine shows ossification of the anterior longitudinal ligament and blurring of the sacroiliac joints. What is the most likely diagnosis?

1- Tuberculosis

2- Allergic Alveolitis

3- Scheuermanns disease

4- Pulmonary Fibrosis

**5- Ankylosing spondylitis**

Q3217. A 55 year old female has recently been commenced on carbamazepine and now presents with generalised joint pains. There is not much to find on examination however she has a positive anti-SS DNA, positive anti-Ro and a reduced C4. What is the most likely diagnosis?

1- Osteoarthritis

2- SLE

**3- Drug induced lupus**

4- Pseudogout

5- Reactive Arthritis

Q3218. What molecule contributes significantly to the pathophysiology of rheumatoid arthritis?

1- IL-2

2- Prostaglandins

3- G-CSF

**4- TNF-alpha**

5- IL-10

Q3219. A 34 year old male presents with left neck and shoulder pain. He also notices a tingling sensation in his left forearm which is particularly noticeable on carrying his briefcase or shopping bags. He also complains of his left hand turning cold and white on occasion. On examination there is evidence of wasting in his thenar muscle and sensory loss over the ulnar aspect of the forearm. There is pallor of his left arm when elevated and loss of his left radial pulse on abduction and external rotation of his left shoulder. Which of the following is the most likely diagnosis?

1- Brachial Neuritis

2- Cervical Radiculopathy

3- Cervical Spondylosis

4- Frozen Shoulder

**5- Thoracic Outlet Syndrome**

Q3220. A 36 year old female presents with joint pain and swelling in the small joints of both hands. Bloods reveal an elevated ESR and Anti-CCP is positive. Which of the following is the most likely diagnosis?

1- Osteoarthritis

**2- Rheumatoid Arthritis**

3- Reactive Athritis

4- SLE

5- Reiter's Syndrome

Q3221. A trial is undertaken comparing the use of banding plus sclerotherapy versus banding plus a placebo injection for oesophageal varices. 21 from 183 procedures were unsuccessful with sclerotherapy compared to 28 from 163 procedures. What type of statistical analysis should be carried out?

1- Paired t test

2- Factorial analysis

3- Students t test

**4- Chi square test**

5- Unpaired t test

Q3222. The standard deviation of a sample means estimate of a populations mean is best described as:

1- Sampling Distribution

2- Confidence Intervals

**3- Standard Error of Mean**

4- Standard Deviation

5- None of the options

Q3223. Which of the following is false regarding the negative predictive value?

1- All are false

2- It the probability that an individual does not have the disease given a negative test result

3- Affected by the specificity of a test

4- Affected by the prevalence rate

**5- It the probability that an individual will have a negative test result when they do not have the disease**

Q3224. You measure a group of patients blood pressure before an operation then afterwards. What test would you use to prove that the operation results in a change of blood pressure?

1- Linear regression

2- Mann Whitney U test

3- Chi squared test

**4- Paired samples t test**

5- Independent samples t test

Q3225. A 60 year old gentleman with known alcohol excess presents with epigastric pain radiating to his back. This has occurred several times. He also describes steatorrhoea and weight loss. What is the most likely diagnosis?

1- Acute pancreatitis

**2- Chronic pancreatitis**

3- Coeliac disease

4- Alcoholic liver disease

5- Gastritis

Q3226. A 60 year old gentleman presents with dysphagia. This initially began with solids and he is now gradually finding it increasingly more difficult to swallow liquids. He has also noticed that he has lost several kilos in weight over the past few months. He has no previous medical history however is a heavy drinker and smoker. On examination he looks cachectic and there is evidence of tenderness in the epigastrium. What investigation should be organised?

1- CT scan

2- Abdominal ultrasound scan

**3- Upper GI endoscopy**

4- Barium swallow

5- Colonoscopy

Q3227. A 60 year old gentleman has just complete a course of coamoxiclav for a lower respiratory tract infection. He present very unwell with severe diarrhoea which is green in colour and is foul smelling. There is no blood or mucous. Samples are sent and a flexible sigmoidoscopy is performed and reveals a colitis. There is evidence of dilatation of his large bowel on abdominal x ray. How should you manage this patient?

1- IV fluids and oral ciprofloxacin

**2- IV fluids and oral metronidazole**

3- IV fluids

4- IV fluids and IV vancomycin

5- Await stool sample results before commencing treatment

Q3228. A 43 year old male was in a road traffic accident and suffered major trauma. He is now in the intensive care unit. He has become pyrexial and he appears to be in pain. On examination he appears to be tender in the right upper quadrant. Bloods reveal deranged LFTs and his amylase is also elevated. He also has a leucocytosis. An ultrasound reveals a distended gallbladder with thickened walls and pericholecystic fluid although there is no evidence of gallstones. What is the most likely diagnosis?

**1- Acalculous Cholecystitis**

2- Ascending Cholangitis

3- Calculous Cholecystitis

4- Hepatitis

5- Acute Pancreatitis

Q3229. A patient being investigated for anaemia has been found from one of the biopsies to have anti parietal antibodies present. Where is the biopsy likely to have been taken from?

**1- Body of Stomach**

2- Terminal Ileum

3- Jejunum

4- Antrum of Stomach

5- Duodenum

Q3230. A 50 year old gentleman who is a heavy smoker presents with weakness. He has noticed it increasingly difficulty to get up from chairs and when going up stairs initially but this improves as he moves. He has been dizzy on standing and has had significant weight loss and a chronic cough. On examination he has symmetrical proximal weakness and diminished tendon reflexes which improves on repeated muscular contraction. He has normal cranial nerve examination. Which of the following is the most likely diagnosis?

1- Polymyalgia Rheumatica

2- Peripheral Neuropathy

3- Polymyositis

4- Myasthenia Gravis

**5- Lambert Eaton syndrome**

Q3231. A 32 year old male with type 1 diabetes mellitus is complaining of double vision. It is worst on looking left and is improved when covering his left eye. What structure is likely to have been involved?

1- Right abducens

2- Left optic nerve

**3- Left abducens**

4- Left trochlear

5- Left oculomotor

Q3232. A patient presents with intermittent spasms of her neck leading her to turn her head to the side. During these spasms her sternocleidomastoid and trapezius muscles are hard and contracted. She is diagnosed with spasmodic torticollis. What would be the most useful for the management?

1- Baclofen oral

2- Botox to normal muscles

3- Baclofen Injection

4- Gabapentin

**5- Botox to affected muscles**

Q3233. A 68 year old female presents as she has been having trouble sleeping for several months. She states in the evening when she is sitting watching TV or during the night which wakes her from her sleep, she suffers odd sensations in her legs and has the urge to move them which relieves the sensation for a short while. She is otherwise in good health. What might you commonly find on bloods?

1- Low TSH and elevated free T4

2- Hypocalcaemia

3- Hypokalaemia

4- Deranged LFTs

**5- Iron Deficiency**

Q3234. A 78 year old female suffers from a stroke. She has now developed sudden, violent swinging of her right arm. What is the most likely cause?

1- Seizure

2- Athetosis

3- Tardive dyskinesia

4- Chorea

**5- Hemiballismus**

Q3235. A 60 year old presents with a burning feeling the anterolateral aspect of her left thigh. he has a PMH of Type 2 Diabetes Mellitus, Stroke and Atrial Fibrillation. On examination her left leg is hypertonic and she is hyperreflexic but power is 5/5. She has a reduced pain sensation over the anterolateral aspect of her right thigh. Which of the following is the most likely diagnosis?

1- Disc Prolapse

2- Diabetic femoral amyotrophy

3- Embolus to spinal artery

4- Multiple Sclerosis

**5- Meralgia Paraesthetica**

Q3236. A 24 year old female presents witnessed by a family member where she suddenly becomes unaware of her surroundings, is unresponsive and performs unusual lip smacking. She states she does not rememeber these attacks however remenbers shortly before it a feeling of deja vue. Given the most likely diagnosis, what treatment should be commenced?

1- Sodium valproate

2- Gabapentin

3- Ethosuximide

4- Phenytoin

**5- Carbamazepine**

Q3237. A 25 year old male who is a personal trainer presents to his GP with cramps in his legs. He states he notices the muscles in his calves twitching. He notices these get worse after excercise and when he is tired. These symptoms have been present for several months and not progressed. He is otherwise fit and well. On examination there is evidence of fasciculations in his calves however the rest of his neurological examination is normal. What is the most likely diagnosis?

1- Becker's Muscular Dystrophy

2- Biochemical Abnormality

3- Inclusion Body Myositis

**4- Benign cramp fasciculation syndrome**

5- Motor Neurone Disease

Q3238. A 35 year old female presents with a severe throbbing headache. She has a past medical history of migraine. She is confused. On examination there is evidence of a 4/5 power on left side and she is hyperreflexic on the left. She has recently been unwell with sinusitis. A CT is performed and shows no space occupying lesion. Which of the following is the most likely diagnosis?

1- Intracranial Abscess

2- Cerebral metastases

3- Migraine

**4- Cerebral Venous thrombosis**

5- Stroke

Q3239. A patient who has suffered from a parietal lobe infarct is having difficulty reading. Which of the following is the most likely explanation?

1- Neglect

2- Superior Homonymous Quadrantanopia

3- Agnosia

4- Sensory loss

**5- Inferior Homonymous Quadrantanopia**

Q3240. A 48 year old male who is a heavy smoker presents to his GP as he has noticed his right eyelid is drooping. On examination there is ptosis of the right eye, right pupillary constriction and right sided anhidrosis. There are no other signs and his only other complaint is that of a smoker's cough. Which of the following investigations should initially be performed to establish the diagnosis?

1- CT Head

**2- Chest Xray**

3- MRI spine

4- CT Chest, Abdomen and Pelvis

5- Lumbar Puncture

Q3241. A 70 year old presents with a lesion on his cheek. The lesion has a raised, pearly border and there is telangiectasia on the surface of the lesion. What is the most likely diagnosis?

1- Squamous Cell Carcinoma

2- Melanoma

3- Wart

4- Actinic Keratosis

**5- Basal Cell Carcinoma**

Q3242. A 29 year old female presents to her GP. She has noticed dandruff and a rash on her face. On examination there is evidence of areas of erythema with fine scaling over her nasal bridge, around her nasolabial fold and eyebrows and ears and there is evidence of fine scaling on the scalp. What is the most likely diagnosis?

1- Pityriasis Capitis

2- Psosriasis

3- Rosacea

**4- Seborrhoeic Dermatitis**

5- Eczema

Q3243. A 29 year old female presents to her GP. She has noticed dandruff and a rash on her face. On examination there is evidence of areas of erythema with fine scaling over her nasal bridge, around her nasolabial fold and eyebrows and ears and there is evidence of fine scaling on the scalp. Which of the following is the most appropriate initial treatment?

**1- Topical Ketoconazole**

2- Oral Fluconazole

3- Oral Steroids

4- Topical steroids

5- PUVA

Q3244. A 29 year old female presents to her GP. She has noticed dandruff and a rash on her face. On examination there is evidence of areas of erythema with fine scaling over her nasal bridge, around her nasolabial fold and eyebrows and ears and there is evidence of fine scaling on the scalp. Given the most likely diagnosis, which of the following organisms may be associated?

1- Demodex mites

2- Candida Albicans

3- Nil

4- Propionibacterium acnes

**5- Malassezia**

Q3245. A 27 year old soldier has just returned from Afghanistan. He has been sent to the dermatology due to a lesion on his right forearm. He states that this began as a small red patch which them increased in size. On examination there is an erythematous raised lesion on his right forearm which has ulcerated and has crusted over. He is otherwise well. Which of the following is the most likely diagnosis?

1- Squamous Cell Carcinoma

**2- Cutaneous Leishmaniasis**

3- Mucocutaneous Leishmaniasis

4- Eczema

5- Psoriasis

Q3246. A 28 year old female presents with irregular periods. She is overweight and has problems with excessive hair and acne. You notice she appears to have broad shoulders and a deep voice. An ultrasound reveals nests of cells throughout the ovarian stroma. Bloods reveal elevated testosterone levels. What is the most likely diagnosis?

1- Congenital adrenal hyperplasia

2- Polycystic ovarian syndrome

3- Androgen producing tumour

**4- Ovarian hyperthecosis**

5- Cushings syndrome

Q3247. A 19 year old female presents with irregular periods to her GP. You notice she is overweight and has acne. She admits that she has to regularly bleach her upper lip hair and has a line of hair from her umbilicus to her pubic hair which she is embarrassed about. Her bloods reveal an elevated LH:FSH ratio and testosterone is at the high end of normal and sex hormone binding globulin is low. Her fasting glucose is 6.2. What Is the most likely diagnosis?

1- Ovarian hyperthecosis

**2- Polycystic ovarian syndrome**

3- Exogenous testosterone

4- Androgen secreting tumour

5- Late onset congenital adrenal hyperplasia

Q3248. A 24 year old nurse is brought to A+E. She has collapsed. She had told people prior to this she was feeling nauseous, anxious, sweaty and having a headache. Her BM is 1.2 mmol/L. How would you differentiate this being self administration of insulin rather than an insulinoma?

1- C peptide level high

2- Bruising of skin suggesting injection

3- High insulin level

**4- C peptide level normal**

5- BM not responding to IV dextrose

Q3249. A 25 year old patient is suffering from hypertension which has been very difficult to control. Bloods reveal metabolic acidosis, hyperkalaemia and low renin and aldosterone levels. What is the most likely diagnosis?

1- Bartters syndrome

2- Cushings disease

3- Conns syndrome

4- Addisons disease

**5- Gordons syndrome**

Q3250. What is the most appropriate test to perform if you suspect an insulinoma?

1- Insulin Stress Test

2- Glucose Tolerance Test

3- Serum 3 hydroxybutyrate levels

4- Fasting glucose and insulin levels

**5- Fasting glucose, insulin and c peptide levels**

Q3251. A 25 year old patient presents with polyuria and polydipsia. A fasting glucose is 9mmol/l. She states that she has a strong family history of diabetes with her father, grandfather and 2 of her uncles have diabetes who all developed it at a young age. Her BMI is 23. She is commenced on gliclazide and gains very good control. What is the most likely diagnosis?

1- Gestational Diabetes

2- Type 1 Diabetes Mellitus

3- Type 2 Diabetes Mellitus

**4- Maturity onset diabetes of the young type 3**

5- Maturity onset diabetes of the young type 2

Q3252. A 19 year old female presents with recurrent episodes of sweating, palpitations, dizziness and weakness. These episodes can occur at any time of the day but she has noticed them particularly at night. Her mother has type 1 diabetes mellitus. You admit her for a 48 hour fasting glucose. 12 hours after admission her glucose is noted to be 2.8 mmol/L and her insulin levels are greatly elevated. Which of the following investigation should be performed to confirm the diagnosis?

1- Insulin Growth Factor 1 levels

**2- C-peptide level**

3- Glucose Tolerance Test

4- Insulin Tolerance Test

5- Proinsulin

Q3253. A 60 year old male presents with headaches. He has noticed he has gained weight over the last few months. On examination he appears to have very large hands and a prominent jaw. He is hypertensive and appears to be sweating profusely. What is the most likely diagnosis?

1- Cushing's Syndrome

**2- Acromegaly**

3- Insulinoma

4- Type 2 Diabetes Mellitus

5- Cushing's Disease

Q3254. A 59 year old male with obesity and hypertension has been found to have a fasting glucose of 6.9mmol/l. Which of the following is the most likely diagnosis?

1- Type 2 Diabetes Mellitus

2- MODY

3- Type 1 Diabetes Mellitus

4- Normal

**5- Impaired Glucose Tolerance**

# Chapter 21 2012 May

Q3255. A patient with central crushing chest pain associated with autonomic features has 1 mm of ST elevation in leads II,III and aVF. How do you manage this patient?

**1- Aspirin + clopidogrel +LMWH and repeat ECG**

2- PCI

3- Heparin only

4- Repeat ECG

5- Thrombolysis

Q3256. A 42 year old male is found to be hypertensive with a blood pressure of 190/100 mmHg. He is otherwise fit and well and there is nil of note on examination. Bloods reveal normal renal function however there is evidence of hypokalaemia, elevated bicarbonate and both renin and aldosterone levels are increased. A 24 hour urinary cortisol fell within the normal range. What is the most likely diagnosis?

**1- Renal artery fibromuscular dysplasia**

2- Cushing's syndrome

3- Phaeochromocytoma

4- Conn's syndrome

5- Glomerulonephritis

Q3257. A 30 year old female who is 28 weeks pregnant presents with palpitations. On examination you find her heart rate to be 180. She is placed on a cardiac monitor which reveals a broad complex tachycardia. She is hypotensive, she feels short of breath and on auscultation of the chest there is evidence of bibasal crackles. How should this patient be managed?

1- IV amiodarone

2- IV adenosine

**3- Synchronised DC cardioversion with monitoring of foetal heart rate**

4- IV verapamil

5- Non synchronised DC cardioversion

Q3258. A 45 year old patient who is known to drink excessively presents in acute alcohol withdrawal. On examination he appears malnourished. He is commenced on diazepam. His BM is 4.2mmol/l. What is the next course of action?

1- IV magnesium

2- IM glucagon

**3- Commence IV Thiamine**

4- Liason psychiatry

5- IV dextrose

Q3259. A 26 year old female is admitted to a general surgery ward with abdominal pain. She is hysterical on admission due to the pain. There is no evidence of guarding. On the ward she is loud and lively. She is flirtatious with the male doctors and nurses and tells the other patients that one of the handsome young doctors has asked her out. She recently quit her job as she states they did not appreciate her and criticised her work. Which of the following is the most likely diagnosis?

1- Borderline Personality Disorder

2- Narcissistic Personality Disorder

3- Nil

**4- Histrionic Personality Disorder**

5- Dependent Personality Disorder

Q3260. Which of the following is not commonly found in a manic episode of bipolar disorder?

1- Elevated mood

**2- Visual Hallucinations**

3- Pressured speech

4- Low attention span

5- Hypersexuality

Q3261. A patient presents with features of Bipolar disorder. Which of the following should be utilised as a mood stabiliser?

**1- Lithium**

2- Olanzapine

3- Quetiapine

4- Risperidone

5- Citalopram

Q3262. Which of the following medications is mostly likely to cause galactorrhoea as a side effect?

1- Clozapine

2- Quetiapine

**3- Risperidone**

4- Fluoxetine

5- Olanzapine

Q3263. A 58 year old gentleman presents with a history of weight loss. He has lost 2 stones in weight over the last 6 months. He is complaining of a chronic cough. He was previously a heavy smoker but has not smoked for over 3 years. He has no other symptoms. He suffers from hypertension and is on bendroflumethiazide for which he has been on for years. He is found to have a sodium of 127 mmol/l with normal urea, creatinine and potassium. His sodium level had been normal 6 months ago. Which of the following is the most likely cause of his hyponatraemia?

1- Hypothyroidism

2- Addison's Disease

3- Bendroflumethiazide

4- Renal Failure

**5- SIADH**

Q3264. A 19 year old female presents to her GP with non specific symptoms of muscle weakness. You note she appears slim. She denies any other specific symptoms and states she is otherwise well. Bloods reveal hypokalaemia and a bicarbonate of 16. She also has an elevated amylase. Which of the following is the most likely diagnosis?

1- Bartter's syndrome

2- Furosemide abuse

**3- Bulimia Nervosa**

4- Chronic Pancreatitis

5- Gitelmann's syndrome

Q3265. A patient presents with erythema nodosum and is found to have bilateral hilar lymphadenopathy. Which biochemical abnormality is associated with this?

**1- Hypercalcaemia**

2- Hypernatraemia

3- Hyperkalaemia

4- Hyponatraemia

5- Hypokalaemia

Q3266. What is the function of protein C?

1- Inactivation of factor Xa

2- Inactivation of factor Va and VIIa

3- Increased activation of factor Va and VIIIa

**4- Inactivation of factor Va and VIIIa**

5- Modification of factors II, VII, IX and X

Q3267. Which GLUT transporter plays a role in glucose sensing?

1- GLUT 3

2- GLUT 1

**3- GLUT 2**

4- GLUT 5

5- GLUT 4

Q3268. A COPD patient has the following blood gas, pH 7.24, CO2 9.5 kPa, O2 9 kPa, bicarbonate 33mmol/l. What is the acid base disturbance?

1- Acute exacerbation of chronic respiratory alkalosis

2- Acute exacerbation of chronic metabolic acidosis

**3- Acute exacerbation of chronic respiratory acidosis**

4- Chronic, compensated respiratory acidosis

5- Acute respiratory acidosis

Q3269. Which of the following provides the best description of how alcohol leads to a diuresis?

1- Increased BNP secretion

2- Inhibition of Na-K-2Cl channels

3- Vasodilation of afferent arteriole

**4- Reduction of aquaporin 2 channel insertion in apical membrane of distal tubules and collecting ducts**

5- Increased aquaporin 2 channel insertion in apical membrane of distal tubules and collecting ducts

Q3270. Which of the following is in a state of continuous inhibition?

1- LH

2- ACTH

3- FSH

**4- Prolactin**

5- TSH

Q3271. What happens to the pulmonary vasculature in a patient with pneumonia?

1- Vasodilatation of vessels in area of lung with pneumonia and vasoconstriction in normal lung

**2- Vasoconstriction of vessels in area of lung with pneumonia and vasodilatation in normal lung**

3- Vasodilatation of vessels in area of lung with pneumonia and vasodilatation in normal lung

4- No change

5- Vasoconstriction of vessels in area of lung with pneumonia and vasoconstriction in normal lung

Q3272. Which of the following is the best method of monitoring a paracetamol overdose?

**1- Prothrombin Time**

2- Renal Function

3- Liver Function Tests

4- Full Blood Count

5- INR

Q3273. A patient is found to have a pancytopenia. A bone marrow aspirate and trephine show a hypocellular bone marrow with no evidence of increased reticulin and normal haemopoetic progenitors. Given the most likely diagnosis, which of the following options is not useful for the management?

1- Allogeneic bone marrow transplantation

2- Ciclosporin

**3- High dose cyclophosphamide without bone marrow transplant**

4- Antithymocyte globulin

5- Transfusions

Q3274. A 55 year old female presents with shortness of breath on exertion and fatigue. She is found to have a pancytopenia on bloods with an elevated MCV. She is found to have antibodies for intrinsic factor and parietal cells. What is the most likely diagnosis?

1- Leukaemia

2- Iron deficiency

3- Aplastic leukaemia

4- Folate deficiency

**5- Pernicious anaemia**

Q3275. A patient with Rheumatoid arthritis is found to have a pancytopenia. She has been stable on her medication for many years. On examination there is evidence of splenomegaly. What Is the most likely diagnosis?

1- B12 deficiency

2- Medication related

3- Aplastic anaemia

**4- Feltys syndrome**

5- Myelodysplasia

Q3276. A 25 year old female has been commenced on nitrofurantoin for a urinary tract infection. She notices that her urine has become dark and her sclera are yellow. Her bloods reveal evidence of a haemolytic anaemia, with a low haemoglobin, elevated reticulocyte count, LDH and bilirubin. A blood film reveal Heinz bodies and bite cells. What is the most likely diagnosis?

1- Hereditary Spherocytosis

**2- Glucose 6 phosphate dehydrogenase deficiency**

3- Pyruvate kinase deficiency

4- Drug induced haemolytic anaemia

5- Paroxysmal nocturnal haemoglobinuria

Q3277. A 60 year old male presents with weight loss, night sweats, fever and fatigue. He has had a change in his bowel habit. On examination he has evidence of inguinal and axillary lymphadenopathy and the patient states these have increased in size quickly. There is also hepatosplenomegaly and a separate abdominal mass. What is the most likely diagnosis?

1- Colorectal Cancer

2- Low grade non Hodgkins lymphoma

3- Hodgkins Lymphoma

4- Tuberculosis

**5- High grade non Hodgkins lymphoma**

Q3278. An asymptomatic female is found to be a carrier of haemophilia A. What is the chance of her having a son with Haemophilia if the father is not affected?

**1- 50%**

2- 25%

3- No chance

4- Less than 1%

5- 100%

Q3279. A man is diagnosed with Huntingtons disease aged 39. His father was diagnosed in his 50s, and his grandfather in his 80s. How is this pattern described?

1- Regression

2- Increasing penetrance

**3- Anticipation**

4- Increasing dominance

5- Inactivation

Q3280. In Fanconis syndrome there is a type 2 renal tubular acidosis along with aminoaciduria, glycosuria and phosphaturia. Which of the following is also a presenting feature of fanconis syndrome?

1- Thrombocytopenia

2- Fatigue

3- Mental retardation

4- Anaemia

**5- Osteomalacia**

Q3281. A 45 year old female is admitted with cellulitus requiring IV antibiotics. She is commenced on IV benzylpenicillin and IV flucloxacillin. She is commenced on Diclofenac for pain. After 3 days she she develops pyrexia, arthralgia, maculopapular rash, haematuria and oliguria. Bloods reveal acute renal failure and eosinophilia. A renal biopsy reveals interstitial cellular infiltrate with eosinophils present and variable tubular necrosis. What is the most likely diagnosis?

1- Chronic tubulointerstitial nephritis

2- NSAID induced acute tubulointerstitial nephritis

**3- Penicillin induced acute tubulointerstitial nephritis**

4- Glomerulonephritis

5- Anaphylaxis

Q3282. A 27 year old female presents to her GP with recurrent UTIs. An intravenous urography is organised and there is evidence of radial linear striations and there is evidence of ectactic collecting ducts. She has no other past medical history of note. What is the most likely diagnosis?

1- Polycystic kidney disease

2- Medullary cystic disease

**3- Medullary sponge kidney**

4- Renal cell carcinoma

5- Tuberculosis of the kidney

Q3283. Which of the following drugs is useful in the treatment of steroid resistant nephrotic syndrome?

1- Furosemide

2- Infliximab

**3- Cyclophosphamide**

4- Methotrexate

5- Ramipril

Q3284. A patient presents with acute renal failure secondary to rhabdomyolysis. Which other biochemical abnormalities may be seen?

1- Hypokalaemia and metabolic acidosis

2- Hypokalaemia and metabolic alkalosis

3- Hypernatraemia

4- Hyperkalaemia and metabolic alkalosis

**5- Hyperkalaemia and metabolic acidosis**

Q3285. A 60 year old male is noted to have macroglossia, hepatomegaly and has waxy papules in the eyelids, neck and groin. He complains of symptoms of carpal tunnel syndrome. He has now developed oedema and is found to have nephrotic syndrome. What is the most likely diagnosis?

1- Glomerulonephritis

**2- Amyloidosis**

3- Minimal change disease

4- Scleroderma

5- Hypercholesterolaemia

Q3286. A 61 year old female presents with haematuria. She has been on sulphasalazine for many years for rheumatoid arthritis and takes ramipril for hypertension. Her blood pressure is 140/82 and she has classical rheumatoid features on her hands. Her urine is positive for blood and protein, her haemoglobin is 11 and creatinine levels are slightly raised. What investigation should be performed next?

1- Cystoscopy

2- Urine culture

**3- Renal biopsy**

4- CT KUB

5- Renal ultrasound

Q3287. A 37 year old male has a history of rhinorrhoea , recurrent sinusitis, joints pains and cough with occasional haemoptysis. On dipstick of his urine there is evidence of proteinuria and haematuria. Bloods reveal acute renal failure and autoantibodies reveal a positive cANCA. What is the most likely diagnosis?

1- Haemolytic Uraemic syndrome

2- IgA nephropathy

**3- Wegeners Granulomatosis**

4- Churg Strauss syndrome

5- Microscopic polyangitis

Q3288. In acute renal failure secondary to tumour lysis syndrome, which of the following is not a typical finding?

1- Hypocalcaemia

2- Hyperphosphataemia

3- Hyperuricaemia

**4- Hypercalcaemia**

5- Hyperkalaemia

Q3289. A patient is found to have cystine renal stones. What is the most likely cause of this?

1- Poor water intake

**2- Cystinuria**

3- Cystinosis

4- Furosemide abuse

5- Calciuria

Q3290. A 3 year old is brought to the GP as she is thought to be drinking and urinating excessively by her parents. She has recently began wetting the bed again after being potty trained last year. She appears very small for her age. Bloods reveal renal impairment, urinalysis normal and an ultrasound is organised. On ultrasound the kidneys appear small and there is evidence of multiple small medullary cysts. What is the most likely diagnosis?

1- Medullary sponge kidney

2- Posterior urethral valve

3- Chronic pyelonephritis

**4- Nephronophthisis**

5- Polycystic kidney disease

Q3291. Metformin if utilised in renal impairment can lead to which of the following?

1- Hypertension

2- Worsening renal failure

**3- Lactic acidosis**

4- Liver disease

5- Proteinuria

Q3292. An 18 year old male presents with features of infectious mononucleosis. However he has now noticed quite marked swelling in his face and legs. Bloods reveal a low albumin. Urinalysis reveals proteinuria and 24 hour collection reveal an protein excretion of 4g/day. There is nil of note on a renal biopsy. What is the most likely underlying cause of his symptoms?

**1- Minimal change disease leading to nephrotic syndrome**

2- Membranous nephropathy

3- Membranoproliferative glomerulonephritis

4- Minimal change disease leading to nephritic syndrome

5- Focal segmental glomerulosclerosis

Q3293. A 4 year old boy is having recurrent UTIs and has hesitancy and poor urine stream. What is the most likely diagnosis?

1- Vesicoureteric reflux

2- Polycystic kidney disease

**3- Posterior urethral valve**

4- Horseshoe kidney

5- Poor hygiene

Q3294. A 55 year old gentleman with a history of hypertension, currently controlled with ramipril, presents with swelling of his tongue and lips. What is the most likely diagnosis?

1- Anaphylactic reaction

2- C1 inhibitor deficiency

3- Trauma

**4- Angioedema secondary to ramipril**

5- Hereditary angioedema

Q3295. A 14 year old girl with type 1 Diabetes Mellitus presents abdominal bloating, steatorrheoa, fatigue and weight loss. What serological investigation would you perform?

**1- IgA antitransglutaminase**

2- IgG antiendomysial antibodies

3- Immunoglobulins

4- IgA antiendomysial antibodies

5- Antigliadin Antibodies

Q3296. A 27 year old female gives birth to her second baby who is noted to be very bradycardic at 60. She has a history of Sjorgens syndrome. Which antibody could have caused the childs bradycardia?

**1- Anti-ro**

2- Anti-Jo

3- ANA

4- Anti-LKM1

5- RF

Q3297. How are the majority of cases of familial primary pulmonary hypertension inherited?

1- X linked recessive

2- Autosomal recessive

3- Mitochondrial

4- X linked dominant

**5- Autosomal dominant**

Q3298. A 48 year old female presents with dyspnoea and syncope on exertion. She is a non smoker and has no past medical history. On examination she has a raised JVP, right parasternal heave, loud pulmonary second heart sound and peripheral oedema. Her chest is clear. An ECG reveals right ventricular strain pattern and CXR shows prominent pulmonary arteries. She now admits to having used fenfluramine in the past. What is the most likely diagnosis?

1- Asthma

2- Aortic stenosis

3- Multiple recurrent pulmonary embolus

**4- Primary pulmonary hypertension**

5- COPD

Q3299. A 54 year old male presents with increased shortness of breath and cough. He is a smoker of 40 per day and has previously been treated for Hodgkins Lymphoma. On examination there is bibasal fine inspiratory crackles. Spirometry reveals a normal FEV1/FVC ratio and reduced gas transfer. What is the most likely diagnosis?

**1- Pulmonary fibrosis secondary to Bleomycin**

2- Asthma

3- Bronchial carcinoma

4- COPD

5- Pulmonary fibrosis secondary to Hodgkins Lymphoma

Q3300. A 52 year old gentleman has been unwell for the last couple of weeks with a viral illness. He is now very unwell with a high grade fever, productive cough and type 1 respiratory failure. A chest Xray reveals multilobular patchy consolidation. There is also evidence of a pleural effusion. Given the most likely causative agent, which antibiotic is a useful addition?

1- Doxycycline

2- Metronidazole

**3- Flucloxacillin**

4- Ceftriaxone

5- Erythromycin

Q3301. A 22 year old presents with sudden onset of pleuritic chest pain. He is not breathless and his saturations are 100%. A Chest Xray reveals a small pneumothorax which is less than 2cm rim. How should this patient be managed?

1- High flow oxygen

**2- Outpatient follow up**

3- Chest drain

4- Admit for observation

5- Aspiration

Q3302. In some cases of familial primary pulmonary hypertension, mutation of bone morphogenic protein receptor 2 on chromosome 2q33 is thought to be responsible. What does this gene encode?

1- Interleukin 10

**2- TGF beta**

3- Fibrillin

4- TNF alpha

5- Interleukin 6

Q3303. Pulmonary function tests reveal a reduced FEV1/FVC ratio, reduced gas transfer and increased total lung capacity. There is little improvement after salbutamol. What is the most likely diagnosis?

**1- COPD**

2- Pneumonia

3- Pulmonary embolism

4- Asthma

5- Interstitial lung disease

Q3304. A patient with HIV presents with a sudden onset of confusion. CMV encephalitis is suspected. What treatment should be commenced?

1- Nil required

**2- Ganciclovir**

3- Ceftriaxone

4- Dexamethasone

5- Aciclovir

Q3305. An 18 year old male who has just started university presents with a sore throat, malaise and fever. On examination there is tonsillar enlargement which are exudative and petechiae on his palate. There is evidence of cervical lymphadenopathy and hepatomegaly. Bloods reveal an elevated ESR and deranged LFTs. What is the most likely diagnosis?

1- Viral Hepatitis

2- HIV Seroconversion

3- Group A Streptococcal Pharyngitis

**4- Infectious Mononucleosis**

5- Viral Pharyngitis

Q3306. What is the likely causative organism of meningitis if a lumbar puncture reveals predominantly mononuclear cells however a markedly elevated protein and low glucose?

1- Enterovirus

2- EBV 3- M. Tuberculosis

4- Herpes simplex virus 5- N. Meningitidis

Q3307. A 36 year old gentleman presents with fatigue, weight loss, abdominal discomfort, nausea and change in bowel habit. On examination there is a right iliac fossa mass. A colonoscopy is organised and a biopsy taken which reveals gram positive filamentous rods and sulphur granules. What is the most likely diagnosis?

1- Crohn's Disease

2- Appendicitis

3- Colorectal Cancer

4- Giardiasis

**5- Actinomycosis**

Q3308. A 22 year old female presents to her GP with increased vaginal discharge. A high vaginal swab is taken for culture and microscopy reveals a monomorphic gram negative diplococci. What treatment should be given?

1- Ciprofloxacin

2- Azithromycin

3- Doxycycline

4- Ampicillin

**5- IM ceftriaxone**

Q3309. A 25 year old female presents with a malodourous vaginal discharge. It is greenish in colour and is frothy. She also reports that her vulva and vagina are itchy and sore. What is the most likely diagnosis?

1- Bacterial Vaginosis

2- Chlamydia

**3- Trichomoniasis**

4- Gonorrhoea

5- Candidiasis

Q3310. A 25 year old female has just returned from travelling around South America. She presents with a 3 day history of malaise and myalgia. This was followed by a severe headache and fever which came on suddenly. She has a dry cough and is complaining of abdominal pain. She has noticed a rash on her abdomen and axillae and this is starting to spread peripherally. On examination there is a non confluent erythematous rash on the abdomen and axillae. What treatment should be commenced?

**1- Doxycycline**

2- Fluoroquinolone

3- Amoxicillin

4- Quinine

5- Chloroquine

Q3311. A 22 year old student has just returned from south America. He presents with pyrexia, jaundice, abdominal pain and vomiting. He has noticed bleeding from his nose and gums. This was preceded by a flu like illness with headache, fever and myalgia especially back pain. He thought he was recovering and then the other symptoms began. What is the most likely diagnosis?

1- Ebola Virus

2- Typhoid Fever

3- Dengue Fever

**4- Yellow Fever**

5- Malaria

Q3312. A 12 year old is brought to his GP. He has been unwell for the last few days with a fever, coryza, diarrhoea and a dry cough. On examination there is evidence of small red spots with a white speck in the centre opposite the second molar on the buccal mucosa. There is also evidence of an erythematous rash on the forehead and neck. Given the most likely diagnosis, what would contribute to the development of blindness as a complication?

1- Vitamin B1 deficiency

**2- Vitamin A Deficiency**

3- Vitamin E deficiency

4- Cataracts

5- Vitamin B12 deficiency

Q3313. A 12 year old is brought to his GP. He has been unwell for the last few days with a fever, coryza, diarrhoea and a dry cough. On examination there is evidence of small red spots with a white speck in the centre opposite the second molar on the buccal mucosa. There is also evidence of an erythematous rash on the forehead and neck. Given the most likely diagnosis, from which of the following is the most common neurological sequelae?

1- Subacute sclerosing panencephalitis

2- Measles inclusion body encephalitis

3- Mononeuritis multiplex

4- Stroke

**5- Acute demyelinating encephalitis**

Q3314. A 25 year old male presents to his GP following a recent trip to Brazil. Whilst on holiday he remembers suffering from an itchy rash. Now he presents with bloody diarrhoea, abdominal pain, right upper quadrant discomfort and fatigue. On examination there is hepatosplenomegaly. What is the most likely causative agent?

**1- Schistosoma mansoni**

2- Schistosoma haematobium

3- Schistosoma intercalatum

4- Schistosoma mekongi

5- Schistosoma japonicum

Q3315. A 25 year old male presents to his GP following a recent trip to Egypt. Whilst on holiday he remembers suffering from an itchy rash. Now he present s with dysuria, urinary frequency and haematuria which he notices particularly at the end of stream. Given the most likely diagnosis, what treatment should be commenced?

1- Chloroquine

**2- Praziquantel**

3- Trimethoprim

4- Amoxicillin

5- Quinine

Q3316. A patient with HIV presents confusion, a seventh nerve palsy and seizures. He is pyrexial and on fundoscopy there is evidence of multiple yellow white patches. A CT of the head reveals multiple bilateral cerebral lesions which are ring enhancing. What is the most likely diagnosis?

1- CMV

**2- Toxoplasmosis**

3- Cerebral tumour

4- Candidiasis

5- Cerebral metastases

Q3317. In a patient who is aged over 50 or under 3 months of age, what is an appropriate addition to ceftriaxone for the empirical management of meningitis?

1- Vancomycin

**2- Amoxicillin 2g 6 hourly**

3- Rifampicin

4- Amoxicillin 1g 8 hourly

5- Gentamicin

Q3318. In an outbreak of meningococcal meningitis, which of the following should be utilised as chemoprophylaxis for contacts?

1- Ceftriaxone

2- Cefotaxime

3- Doxycycline

4- Penicillin V

**5- Rifampicin**

Q3319. A 25 year old man presents with diarrhoea. This came on suddenly and was watery however there is now evidence of mucous and blood. He is also complaining of abdominal cramps and malaise. He does not appear dehydrated and is otherwise fit and well. A stool culture reveals a gram negative bacilli. What is the most likely causative agent?

1- Clostridium difficle

2- Shigella dysenteriae

3- Enterotoxic E. Coli

**4- Shigella Sonnei**

5- Vibrio cholera

Q3320. A 45 year old patient presents with reflux and dysphagia. She also notices her fingers becoming painful and blue in the cold weather. She also notices intermittent joint pains. On examination there is evidence of telangiectasia and soft tissue calcification and sclerodactyly on examination of her hands. What autoantibody is likely to be found?

**1- Anti-centromere**

2- Rheumatoid factor

3- Anti-mitochondrial

4- p-ANCA

5- c-ANCA

Q3321. A 65 year old female presents with right knee pain. She has a history of hypertension. On examination she has a raised BMI, there is no obvious abnormalities at the knee but painful internal rotation of the hip. What investigation would you perform?

**1- Left hip X-ray**

2- Bone scan

3- MRI knee

4- Uric level

5- Blood cultures

Q3322. A 75 year old female with known osteoarthritis presents with a painful thumb. She is otherwise well and there is no history of trauma. On examination there is swelling and tenderness in the first carpometacarpal joint. She is apyrexial. Blood tests are normal. What is the most likely diagnosis?

1- Pseudogout

2- Rheumatoid arthritis

3- Gout

4- Fracture

**5- Osteoarthritis**

Q3323. A 60 year old male presents with swelling of his knee. An xray reveals osteophytes and loss of joint space. A diagnostic arthrocentesis is obtained. In the aspirate what would you not expect to find?

1- Low white cell count

2- Pale yellow fluid

3- No evidence of crystals

**4- Low glucose level**

5- No organisms grown

Q3324. A 50 year old man presents with joint pain affecting his knee and wrist. He has been feeling generally unwell. On examination there is evidence of a target shaped rash on his shin and there is generalised lymphadenopathy. Which investigation will be helpful for the diagnosis?

1- Autoantibodies

**2- Antibody titre for Borrelia burgdorferi**

3- Inflammatory markers

4- Blood culture

5- Skin biopsy

Q3325. A 63 year old female is found to have a pathological fracture of her femur. An Xray showed patchy sclerosis, thickening of the trabeculae and loss of distinction between the trabeculae and cortex. What treatment should be initiated?

1- Calcium and vitamin D supplements

2- Raloxifene

**3- Bisphosphonate**

4- Strontium

5- Calcitonin

Q3326. What is the most characteristic finding on Xray of a patient with ankylosing spondylitis?

1- Narrowed disc space

2- Scoliosis

**3- Subchondral bony sclerosis at sacroiliac joints**

4- Osteophytes

5- Widened disc space

Q3327. A 62 year old female with known osteoarthritis and diabetes presents with sudden swelling and pain in her left knee. It is hot, red and tender. What investigation should be performed?

1- Analgesia

2- Joint fluid microscopy

3- Blood culture

**4- Joint aspiration for gram stain, microscopy and culture**

5- Xray of knee

Q3328. A 54 year old lady presents with joint pains. She gives a history of Raynaud's syndrome and GI upset with diarrhoea and difficulty swallowing with some weight loss. She has some telangiectasia evident on her face. Bloods reveal a normochromic normocytic anaemia and positive anticentromere pattern. Which of the following is the most likely diagnosis?

1- Mixed connective tissue disease

2- SLE

3- Progressive systemic sclerosis

**4- CREST syndrome**

5- Rheumatoid arthritis

Q3329. What HLA type is associated with rheumatoid arthritis?

**1- HLA DR4**

2- HLA cW

3- HLA DQ2

4- HLA B27

5- HLA B51

Q3330. A 40 year old with brittle asthma presents with left hip and groin pain. It is very painful to weight bear. An x-ray reveals no evidence of a fracture. What investigation will give the definitive diagnosis?

1- Inflammatory markers

**2- MRI of the left hip**

3- Arthroscope of left knee

4- X-ray of left knee

5- Autoantibodies

Q3331. A trial is undertaken comparing the use of banding plus sclerotherapy versus banding plus a placebo injection for oesophageal varices. 21 from 183 procedures were unsuccessful with sclerotherapy compared to 28 from 163 procedures. What type of statistical analysis should be carried out?

**1- Chi square test**

2- Students t test

3- Paired t test

4- Unpaired t test

5- Factorial analysis

Q3332. You measure a group of patients blood pressure before an operation then afterwards. What test would you use to prove that the operation results in a change of blood pressure?

1- Chi squared test

2- Linear regression

3- Mann Whitney U test

4- Independent samples t test

**5- Paired samples t test**

Q3333. A 45 year old gentleman presents with halitosis. He has also noticed it is sometimes difficult to swallow and sometimes regurgitates undigested food. He has also recently been diagnosed with asthma. What is the most likely diagnosis?

1- Barretts Oesophagus

2- Hiatus Hernia

3- Achalasia

4- Oesophageal carcinoma

**5- Pharyngeal pouch**

Q3334. A 45 year old female, known to have systemic sclerosis presents at clinic with worsening reflux, abdominal bloating and is also having bouts of diarrhoea and constipation. She is currently on omeprazole. On examination her abdomen is soft but is tender generally. A motility study is performed and shows severe oesophageal dysmotility and a hydrogen breath test is positive. How would you manage this patient?

1- Metoclopramide

**2- Metronidazole**

3- Ranitidine

4- Double dose of omeprazole

5- Amoxicillin

Q3335. A 55 year old gentleman presents to his GP with intermittent abdominal pain and diarrhoea which is sometimes difficult to flush away. He has also had a cough, fever and has noticed aches and pains in his joints. A biopsy of the duodenum reveals periodic acid Schiff stain positive macrophages with intracellular clumps. What is the most likely diagnosis?

1- Coeliac disease

**2- Whipples disease**

3- Inflammatory Bowel Disease

4- Bacterial Overgrowth

5- Carcinoid Syndrome

Q3336. A 74 year old man with a history of alcohol excess is brought to A and E with fluctuating confusion. He had a fall some weeks ago. He has been feeling lethargic. There is nil of note on examination and his bloods and CXR are normal. Which diagnosis should be considered?

1- Alzheimers disease

2- UTI

**3- Subdural haematoma**

4- Transient ischaemic attack

5- Vascular Dementia

Q3337. A 63 year old female has sudden onset bilateral weakness in her legs and urinary retention. She has a PMH of hypertension and is a heavy smoker. On examination she has 4/5 weakness in both legs and has pain and temperature loss from the level of the umbilicus over all dermatomes of her legs. Other sensory modalities are unaffected. Which of the following is the likely cause?

1- Stroke

2- Spinal tumour

3- Cauda Equina Syndrome

**4- Anterior spinal artery occlusion**

5- Syringomyelia

Q3338. A 28 year old who is 7 months pregnant presents with pain and tingling in her left hand which she notices is worst in the morning. She has also noticed dropping things. On examination there is 4/5 power in the left abductor pollicis brevis and of thumb flexion. There is reduced sensation in the left thumb, index, middle and half of the lateral half of the ring finger. There is nil else of note. What is the most likely structure affected?

1- Radial Nerve

2- C7 nerve root

3- Ulnar nerve

**4- Median Nerve**

5- Axillary Nerve

Q3339. A 29 year old gentleman presents with weakness in the left leg. On examination there is loss of proprioception and gross touch in the left leg. In the right leg there is loss of pain and temperature sensation. Which of the following is the likely diagnosis?

1- Peripheral Neuropathy

2- Guillain Barre syndrome

3- Functional Disorder

4- L4 L5 disc Prolapse

**5- Brown Sequard syndrome**

Q3340. A 72 year old with hypertension collapses. She is brought to A+E, her husband said she was complaining of a severe headache and had vomited just before she collapsed. On examination she has no verbal response and she is not opening her eyes to pain. She has a dense right hemiparesis and her right plantar reflex is upgoing. She begins to seize. What is the most likely diagnosis?

1- Subdural haematoma

2- Encephalitis

3- Meningitis

**4- Intracranial haemorrhage**

5- Ischaemic stroke

Q3341. What is the mode of action of interferon beta 1a?

1- It promotes apoptosis

2- It activates quiescent neurones

3- It prevents prostaglandin synthesis

**4- It increases MHC class 1 presentation**

5- It prevents the activation of Natural Killer (N K) cells

Q3342. Which of the following tests uses a labeled complementary DNA or RNA strand to localize a specific DNA or RNA sequence?

**1- In Situ Hybridisation**

2- Northern Blot

3- Southern Blot

4- Western Blot

5- Polymerase chain reaction

Q3343. Which of the following is thought to lead to Alzheimer's disease?

1- Huntingtin deposition

2- Alpha synuclein in substantia nigra

3- AA amyloid forming neurofibrillary tangles

**4- Tau protein forming neurofibrillary tangles**

5- AL amyloid forming neurofibrillary tangles

Q3344. Which tumour marker and disease pair is correct?

**1- Ovarian cancer and CA 125**

2- Sarcoidosis and Vimentin

3- Pancreatic cancer and CarcinoEmbryonic Antigen

4- Lung cancer and AFP

5- Pancreatic cancer and CA 20 2

Q3345. A 28 year old soldier presents with an itchy rash. He is itchy in his finger webs, wrists and groin and there is evidence of excoriation in these areas. What is the most likely diagnosis?

1- Tinea corporis

2- Contact dermatitis

3- Psoriasis

**4- Sarcoptes scabiei infection**

5- Lichen planus

Q3346. A 55 year old female presents with a rash and she has noticed blisters forming. On examination she has areas of erythema and excoriations. She has dysuria. She is currently on atenolol and aspirin for hypertension. A skin biopsy is organised and shows intercellular staining of IgG on immunofluorescence. What is the most likely diagnosis?

1- Allergic reaction

2- Eczema Herpeticum

3- Dermatitis herpetiformis

4- Bullous

**5- Pemphigus Vulgaris**

Q3347. A 35 year old man with inflammatory bowel disease presents with an ulcer. On examination he has a deep ulcerating lesion on his leg. How would you confirm the diagnosis? No further investigation

1- Immunoglobulins

2- No further investigations

3- Doppler Ultrasound

**4- Biopsy and culture from the ulcer**

5- Autoantibodies

Q3348. A 32 year old female presents to her GP with tremor, sweating, diarrhoea and irritability. She has noticed she has lost weight and is intolerant to heat. On examination there is evidence of tachycardia, brisk reflexes and goitre (small, diffuse and fir m) . In addition you notice exopthalmos, lid lag and evidence of clubbing of her fingers which are tender. What is the most likely diagnosis?

1- Hashimotos thyroiditis

**2- Graves disease**

3- Toxic adenoma

4- De Quervains thyroiditis

5- Toxic multinodular goitre

Q3349. A 32 year old female presents with a lump in her neck which is deemed to be of thyroid origin. It is giving her some problems with swallowing. Her thyroid function tests are normal and an ultrasound is arranged. A radionuclide uptake scan is organised and shows a cold nodule and her FNA is suspicious of follicular carcinoma. How would you manage this patient?

1- Radioiodine therapy and oral replacement

**2- Total thyroidectomy, radioiodine therapy and oral replacement**

3- Thyroxine

4- Watch and Wait

5- Total Thyroidectomy

Q3350. A patient presents with a hard, fixed , painless woody goitre. She is having some difficulty with swallowing. She is otherwise asymptomatic. A thyroid ultrasound is performed and reveals a homogeneously hypoechoic gland. She is euthyroid. A biopsy is organised reveals dense infiltration. What is the most likely diagnosis?

1- De Quervain thyroiditis

**2- Riedels thyroiditis**

3- Anaplastic carcinoma

4- Hashimotos thyroiditis

5- Thyroid lymphoma

Q3351. If a patient has a calcium of 3.5 mmol/L with a T score of -2.7, secondary to hyperparathyroidism, what is the best management?

1- Bisphosphonates

**2- Surgery**

3- Block and Replace

4- HRT or raloxifene

5- Watch and Wait

Q3352. A 25 year old gentleman presents to his GP. He is concerned as he has small testes and has a low libido and impotent. He also complains of having breasts despite him being slim and does not need to shave often. What is the most likely diagnosis?

**1- Klinefelters syndrome**

2- Exogenous oestrogen

3- Fragile X syndrome

4- Turners Syndrome

5- Complete androgen insensitivity syndrome

Q3353. A 65 year old was diagnosed with type 2 diabetes mellitus the previous year. He has ongoing problems with biliary colic. He has recently lost weight and is complaining of loose malodorous stools up to 5 times a day. He is suffering from nausea and abdominal pain. He is found to be anaemic. What is the most likely diagnosis?

1- Gastrinoma

2- Glucagonoma

**3- Somatostatinoma**

4- Insulinoma

5- VIPoma

Q3354. A 48 year old female is suffering from oligomenorrhoea. She is also complaining of tiredness, dizziness, weight gain, cold intolerance, constipation, hair and nail changes and is found to have low potassium and glucose on bloods. Her FSH, LH and oestrogen levels are low. What is the most likely cause of her amenorrhoea?

1- Addisons

**2- Panhypopituitarism**

3- Primary ovarian failure

4- Polycystic ovarian syndrome

5- Hypothyroidism

Q3355. A 68 year old female has recently had a mitral valve replacement. She presents feeling generally unwell, feverish with night sweats and weight loss. On examination she is pyrexial and there is a murmur in the aortic area and inflammatory markers are raised. Blood cultures are taken. What other investigation is most likely to confirm the diagnosis?

1- ESR

2- Troponin

3- Transthoracic Echocardiogram

4- ECG

**5- Transoesophageal Echocardiogram**

Q3356. What auscultatory findings would you expect to find with a left bundle branch block?

1- Normal 2nd heart sound and soft first Heart sound

2- Normal first and second heart sounds

**3- Reversed splitting of the 2nd heart sound**

4- Reversed splitting of the 2nd heart sound and loud first heart sound

5- Fixed splitting of the 2nd heart sound

Q3357. A 28 year old male has been found to be hypertensive at 190/85 on several occasions and he has been referred and is investigated further. There is a drop of 60mmHg systolic blood pressure from the right brachial to the right femoral. What is the likeliest diagnosis?

1- Tetralogy of Fallot

**2- Coarctation of aorta**

3- HOCM

4- Patent ductus arteriosus

5- AS

Q3358. What is the mechanism of action of clopidogrel?

1- Blocks prostaglandin production

2- Glycoprotein IIb/IIIa receptor antagonist

**3- Blocks Platelet ADP Receptors**

4- Potentiates antithrombin

5- Potentiates factor X

Q3359. A patient who 2 days previously had suffered a STEMI is suffering from acute SOB. On examination there is bilateral crackles to mid zones and a pan systolic murmur, loudest at the apex. What is the most likely diagnosis?

1- Aortic Stenosis

2- Ventricular rupture

**3- Acute mitral regurgitation**

4- Acute tricuspid regurgitation

5- Ventricular septal defect

Q3360. A 66 year old male with a history of AF on aspirin and bisoprolol presents with symptoms of TIAs. An ECHO and a CT Head do not reveal any abnormalities. How would you manage this patient?

**1- Warfarin**

2- Clopidogrel

3- Carotid endarterectomy

4- Digoxin

5- Nil

Q3361. A patient has just suffered a STEMI and is now found to be in complete heart block. What vessel is likely to have been involved?

1- Left circumflex artery

2- Left coronary artery

3- Left marginal artery

4- Left anterior descending artery

**5- Right coronary artery**

Q3362. A 60 year old male presents with general malaise, pyrexia and night sweats. They have a past history of rheumatic heart disease. On examination there is evidence of a pansystolic murmur. Which is a new clinical finding. What organism is the most likely to have caused these symptoms?

1- Staph Epidermidis

**2- Strep. Viridans**

3- MRSA

4- HACEK group

5- Staph. Aureus

Q3363. A 23 year old female has been referred to the cardiology clinic. She has been increasingly shortness of breath and can barely climb stair without becoming short of breath. She is found to be hypertensive. An ECHO revealed right atrial hypertrophy and raised right atrial pressure. Cardiac catheterisation was performed and revealed a higher than normal oxygen saturation in the right atrium and ventricle. What is the most likely diagnosis?

1- Atrial Septal Defect (Ostium primu m) 2- Patent ductus arteriosus

**3- Atrial Septal Defect (Ostium secundu m) 4- Pulmonary Hypertension**

5- Ventricular septal defect

Q3364. A 20 year old has been admitted with chest pain. He admitted to using cocaine and is found to have a STEMI. What do you do next?

1- IV heparin

2- Glycoprotein IIb/IIIa inhibitors

3- Aspirin and clopidogrel and LMWH

4- Thrombolysis

**5- Percutaneous coronary intervention**

Q3365. Which of the following indicates a high risk of successfully completing suicide?

1- Female sex

**2- Previous unsuccessful attempt**

3- Previous diagnosis of bipolar disease

4- Father killed himself

5- Alcoholism

Q3366. You are reviewing a patient who tells you she feels like a failure. She has no friends and claims no body would want to be her friend, lives alone, has never had a partner, finds it hard to interact with her family, has feelings of rage in between longer bouts of emptiness and self harms. Her notes detail 8 previous suicide attempts, including two whilst admitted. What is the diagnosis?

1- Bipolar depression

2- Dissociative disorder

3- Schizophrenia

4- Substance abuse

**5- Borderline personality disorder**

Q3367. A patient with a 6 month history of low mood and some suicidal thoughts is discussing her treatment options. Which of the following is the best pharmacological treatment?

1- Haloperidol

2- Lorazepam

3- Amitriptyline

4- Selegiline

**5- Fluoxetine**

Q3368. A patient who has confirmed Cushings syndrome following a low dose dexamethasone suppression test, is found to have an incomplete response to a high dose dexamethasone suppression test but shows an increased cortisol level following administration of corticotropin releasing hormone. What is the most likely definitive diagnosis?

**1- Cushing's Disease**

2- Ectopic ACTH excretion

3- Adrenal Adenoma

4- Conn's Syndrome

5- Exogenous Steroids

Q3369. A 68 year old femalee presents with central visual blurring. On examination there appears to be small yellow deposits within the maculae and a small haemorrhage at the maculae. Fluoroscein angiography is performed and shows neovascularisation within the macula of both eyes. You suspect wet age related macular degeneration. Which of the following is an important risk factor for the development?

1- Cataract surgery

**2- Smoking**

3- Diabetes

4- Glaucoma

5- Hypertension

Q3370. A 55 year old female who is on methotrexate for rheumatoid arthritis presents to her GP with a painful red right eye. This came on suddenly and her eye is mildly painful and watering. Her vision has not been affected. On examination there is evidence of redness in the right upper quadrant of the right eye and this is tender. Her pupil is normal as is her conjunctivae. Visual acuity is unchanged and eye movements are normal. Which of the following is the most likely diagnosis?

1- Acute Glaucoma

2- Corneal Abrasion

**3- Episcleritis**

4- Scleritis

5- Conjunctivitis

Q3371. A 57 year old male presents to his GP with a sudden onset severe frontal headache associated with nausea and vomiting. He also had pain in his right eye and was complaining of visual blurring. On examination there is no evidence of neck stiffness or focal neurology. The right eye appears red with a ciliary flush and a non reactive mid dilated pupil. Which of the following is the most likely diagnosis?

1- Scleritis

2- Meningitis

3- Anterior Uveitis

**4- Acute Closed Angle Glaucoma**

5- Conjunctivitis

Q3372. Which of the following enzymes is required for fatty acid oxidation?

1- Cyclooxygenase

2- Glucokinase

3- Lipase

**4- Carnitine acyltransferase I**

5- HMG CoA Reductase

Q3373. A young doctor finds that he is light headed every morning until he eats breakfast. Which of the following is abnormal in this case?

1- Glycosylation

2- Glycolysis

3- Ketogenesis

**4- Gluconeogenesis**

5- Pentose phosphate pathway

Q3374. What compensatory mechanism occurs to counteract dehydration?

1- Reduced cortisol levels

2- Reduced ADH levels

3- Increased renal blood flow

**4- Increased aquaporin 2 in collecting ducts**

5- Increased sodium excretion

Q3375. How is the majority of cortisol metabolised and excreted from the body?

1- Metabolised in liver and excreted in the urine as cortisol

2- Metabolised in liver and excreted in bile acids as conjugated metabolites

**3- Metabolised in liver, metabolites conjugated and excreted in the urine**

4- Hepatic metabolism

5- Metabolised in liver and excreted in bile acids as free cortisol

Q3376. A 32 year old male who has rheumatoid arthritis is wishing to start a family with his partner. However there has been difficulty in conceiving and further investigation reveals a low sperm count. Which of the following drugs is the most likely cause?

1- Hydroxychloroquine

2- Azathioprine

3- Methotrexate

4- NSAIDs

**5- Sulfasalazine**

Q3377. Which one of the following atypical antipsychotics is most likely to cause weight gain?

1- Risperidone

**2- Olanzapine**

3- Amisulpiride

4- Aripiprazole

5- Quetiapine

Q3378. Which of the following is most likely to lead to drug induced lupus?

1- Phenytoin

2- Gold

3- Phenothiazines

**4- Hydralazine**

5- Penicilliamine

Q3379. Which of the following is a side effect of sildenafil use?

**1- Blue tint to vision**

2- Bodily secretions turn pink

3- Yellow halo around objects

4- Vitreous haemorrhage

5- Difficulty discriminating red/greem

Q3380. A 58 year old male who is undergoing treatment for pancreatic carcinoma presents with nausea and vomiting. He vomits undigested food and feels full very quickly. He appears dehydrated and there is evidence of succussion splash. Which of the following treatments is most useful?

**1- Metoclopramide**

2- Dexamthasone

3- Ondansetron

4- Levomepromazine

5- Cyclizine

Q3381. Imatinib is utilised in the management of Chronic Myeloid Leukaemia. What is its mechanism of action?

1- Tyrosine kinase activator

**2- Tyrosine kinase inhibitor**

3- Tyrosine kinase receptor blocker

4- PPAR gamma inhibitor

5- PPAR gamma activator

Q3382. A patient on lithium for Bipolar disorder requires an antihypertensive. Which of the following is the drug of choice?

1- Furosemide

**2- Amlodipine**

3- Losartan

4- Bendroflumethiazide

5- Ramipril

Q3383. Which of the following does not require alteration in renal failure?

1- Piperacillin

2- Co amoxiclav

**3- Clindamycin**

4- Amoxicillin

5- Clarithromycin

Q3384. A 72 year old female with a past medical history of hypertension and type 2 diabetes mellitus presents with fatigue, bone pain and feeling weak. On examination there is evidence of bony tenderness in her spine and legs and proximal muscle weakness. Bloods reveal elevated creatinine, phosphate and parathyroid hormone levels and a low calcium. Which of the following should be commenced?

**1- Alfacalcidol**

2- Cinacalcet

3- Strontium ranelate

4- Cholecalciferol

5- Risedronate

Q3385. A 45 year old male is admitted with acute pancreatitis. He is found to have a very elevated triglyceride level and slightly high cholesterol. Which treatment should be commenced to reduce his risk of further episodes of acute pancreatitis?

1- Omega 3 fish oils

2- Niacin

3- Nil required

**4- Fibrate**

5- Statin

Q3386. A gentleman has recently been commenced on a new antianginal medication. He has noticed that he has began to develop ulcers in his mouth. Which of the most following is the likeliest cause?

**1- Nicorandil**

2- Isosorbide Mononitrate

3- Diltiazem

4- Atenolol

5- Amlodipine

Q3387. A patient has been recently commenced on rifampicin, isoniazid and pyrazinamide. His recent blood check shows a bilirubin of 12, an AST of 88 and ALT of 90. What is your next course of action?

1- Stop Isoniazid

**2- Continue with current management**

3- Stop Pyrazinamide

4- Stop Rifampicin

5- Stop all drugs

Q3388. The plasma concentration of a drug on measurement is 20 mg/L. After 15 hours its levels is 2.5 mg/L. What is the half life of this drug?

**1- 5 hours**

2- 10 hours

3- 4 hours

4- 3 hours

5- 6 hours

Q3389. A 36 year old female presents to her A+E department with an overdose. She states that on Friday evening she took 10 tablets then she took another 15 on Saturday and a further 15 on Sunday evening and she then presented 2 hours later. Which of the following is the next appropriate management?

1- Take bloods at 4 hours post overdose and await results before treatment

**2- Commence N-acetyl cysteine**

3- Take paracetamol levels and commence Nacetyl cysteine if level above high risk treatment line

4- Commence N-acetyl cysteine if PT is > 1.5

5- Take paracetamol levels and commence Nacetyl cysteine if level above normal treatment line

Q3390. A 50 year old African man is found to be hypertensive. Which of the following should be used first line?

1- Losartan

2- Diltiazem

3- Atenolol

4- Ramipril

**5- Bendroflumethiazide**

Q3391. What is the mechanism of action of Ciclosporin?

1- Anti -TNF-alpha

2- Binds to T cell receptor

3- Inhibits calcineurin reducing Interleukin-10 levels

**4- Inhibits calcineurin reducing Interleukin-2 levels**

5- Inhibits calcineurin increasing Interleukin-2 levels

Q3392. When a patient is on lithium therapy, apart from renal function which other test should be performed 6 monthly or annually?

1- Lithium levels

2- Liver function tests

3- Full blood count

4- Nil

**5- Thyroid function tests**

Q3393. A patient with hypertension and ischaemic heart disease is requesting sildenafil. Which of the following drugs would prevent it being prescribed? Ramipril

1- Clopidogril

2- Atenolol

3- Aspirin

4- Furosemide

**5- Isosorbide mononitrate**

Q3394. What is the mechanism of action of aspirin?

1- Antagonists of glycoprotein IIb/IIIa receptors

2- Irreversibly inhibits ADP receptors on platelets

3- Inhibition of lipooxygenase

4- Inhibits factor Xa production

**5- Inhibiton of Cyclooxygenase**

Q3395. What is the mechanism of action of Fondaparinux?

1- GP IIb/IIIa inhibitor

**2- Selectively inhibits factor Xa through antithrombin III**

3- ADP receptor blocker

4- Irreversibly binds directly to factor Xa, inhibiting it

5- Reversible binding of factor Xa, inhibiting it

Q3396. Which of the following chemotherapeutic agents is most commonly associated with peripheral neuropathy?

1- Doxorubicin

2- Cisplatin

**3- Vincristine**

4- Bleomycin

5- Etoposide

Q3397. A pregnant patient is found to have a macrocytic anaemia in her third trimester. What is the most likely cause?

1- Hypothyroid

**2- Folate deficiency**

3- Vitamin B12 deficiency

4- Dilutional

5- Iron deficiency

Q3398. A 28 year old female presents feeling very tired, short of breath on exertion and palpitations for the last few days. She has recently had a course of cefalexin for a Urinary tract infection. She is otherwise normally fit and well. On examination the patient looks pale and the sclerae appear yellow. She is tachycardic. Bloods reveal a low haemoglobin with a high reticulocyte count and evidence of spherocytes on the blood film. Her bilirubin was elevated (majority being unconjugate d) but the rest of her LFTs were normal and her LDH was elevated. A direct Coombs test was positive.

1- Hereditary spherocytosis

2- Gallstones

3- Cold autoimmune haemolytic anaemia

4- Warm autoimmune haemolytic anaemia

**5- Drug induced immune haemolytic anaemia**

Q3399. A 26 year old female presents to her GP after noticing her urine has been a dark brown colour. She admits to feeling increasingly tired over the last few months and has noticed herself bruising easily. Bloods reveal a low haemoglobin which is macrocytic. She also has low platelets and evidence of increased LDH, low haptoglobin and increased reticulocyte count. A dipstick reveals haematuria however microscopy does not reveal in red blood cells. What test would provide the definitive diagnosis?

**1- Flow cytometry**

2- LDH

3- Sugar water test

4- Bone marrow biopsy

5- Hams test

Q3400. A young patient has been brought to see his GP as his chest sticks out more compared to his siblings. Examination reveals long thin extremities and arachnodactyly. Nothing else is of note. What is the diagnosis?

**1- Marfans syndrome**

2- Ehlers Danlos syndrome

3- Acromegaly

4- Klinefelter syndrome

5- Fragile X syndrome

Q3401. A 26 year old man Is having problems conceiving with his partner. He is tall and is noted to have gynaecomastia and microorchidism on examination. What is the most common cause of infertility in a man of this description?

1- Marfan syndrome

2- Down syndrome

3- Cystic fibrosis

4- Fragile X

**5- Klinefelters syndrome**

Q3402. A 31 year old female presents with bloody diarrohea and is referred for colonoscopy which reveals 4 adenomatous polyps in the ascending colon. She has a positive history of colon cancer, including 3 first degree relatives. What is the diagnosis?

1- Cowden syndrome

2- KRAS mutation

3- Gardner syndrome

4- Familial adenomatous polyposis

**5- Hereditary non polyposis colon cancer**

Q3403. A 21 year old man presents to his GP after dislocating his shoulder several times. On examination his joints are hypermobile, his skin elasticity is normal, there is no bruising and laboratory investigations are normal. He is tall but his arm span is normal. What is the likely diagnosis?

1- MASS phenotype

2- Ehlers Danlos syndrome

**3- Benign hypermobile syndrome**

4- Marfan syndrome

5- Loeys Dietz syndrome

Q3404. A patient is found to have hypokalaemia, hyperchloraemic acidosis, hypercalciuria and a urinary pH of 6.4. What type of renal tubular acidosis does this indicate?

**1- Type 1**

2- Type 4

3- Type 2

4- Does not indicate renal tubular acidosis

5- Type 3

Q3405. A 56 year old presents two weeks post renal transplant with peripheral oedema. Her creatinine has doubled since its last measurement and she is hypertensive. What treatment should be commenced initially?

1- Oral prednisolone

2- Azathioprine

3- Mycophenolate Mofetil

4- Ciclosporin

**5- IV Methylprednisolone**

Q3406. A patient is found to be in acute renal failure with a potassium of 6.8mmol/L. Her ECG shows tall tented T waves. She is commenced on cardiac monitoring and is given insulin dextrose infusion and salbutamol nebulisers. Which other treatment should be given?

1- Sodium bicarbonate

2- Further insulin dextrose

3- Calcium resonium

**4- Calcium Gluconate**

5- Repeat Potassium

Q3407. A 24 year old is found to have chronic renal failure. There is a history of numerous UTIs as a child. On ultrasound there is evidence of renal scarring. She is hypertensive. What is the most likely diagnosis?

1- Polycystic kidney disease

**2- Reflux Nephropathy**

3- Hypertensive renal disease

4- Posterior urethral valve

5- Pyelonephritis

Q3408. A 20 year old male with anaphylaxis is brought to A+E with facial and tongue swelling and wheeze. He has a venflon in situ. Which of the following must be administered immediately?

1- IV chlorphenamine

**2- IM adrenaline**

3- Nebulised salbutamol

4- IV corticosteroids

5- IV adrenaline

Q3409. Which of the following leads to low pleural effusion glucose levels?

1- Hypothyroidism

2- Cirrhosis

3- Parapneumonic

**4- Rheumatoid disease**

5- Congestive cardiac failure

Q3410. Caplans syndrome refers to?

**1- Rheumatoid lung nodules and pneumoconiosis**

2- SLE and pneumoconiosis

3- Silicosis and bronchial cancer

4- Coal miners penumoconiosis

5- Bronchial cancer secondary to pneumoconiosis

Q3411. A 42 year old male is admitted for treatment of a community acquired pneumonia. He had been making a good recovery when 3 days into admission he spikes a temperature and is complaining of pleuritic chest pain. A CXR reveals a right sided pleural effusion. A pleural tap is performed and is purulent with the fluid having a pH of less than 7.2, low glucose and elevated LDH. What is the most likely diagnosis?

1- Parapneumonic Effusion

**2- Empyema**

3- Pneumothorax

4- Pneumonia Recurrence

5- Haemothorax

Q3412. A 33 year old male with HIV presents unwell. He has a cough productive of green sputum, is short of breath and is pyrexial. He is noticed to desaturate on minimal exertion. On examination there is a few crackles bibasally. A chest X ray reveal perihilar bilateral diffuse infiltrates. What is the most likely diagnosis?

**1- Pneumocystis jiroveci pneumonia**

2- Legionella

3- Klebsiella pneumoniae pneumonia

4- Staphylococcus aureus pneumonia

5- Mycoplasma pneumoniae pneumonia

Q3413. What is the most common organism to lead to watery diarrhoea, nausea and abdominal cramps in a patient with HIV?

1- Microsporidia

2- Salmonella

**3- Cryptosporidium**

4- Giardia

5- Shigella

Q3414. A 6 year old is brought to her GP. She has been unwell for the previous few days with mild fever, malaise, headache, myalgia, arthralgia and rhinorrhoea. She then developed an erythematous macular rash on her cheeks with circumoral pallor. What is the most likely causative agent?

**1- Parvovirus B19**

2- Mumps

3- Rubella

4- Measles

5- Streptococcus

Q3415. A 42 year old male who is being treated for lung cancer with chemotherapy has required a blood transfusion for symptomatic relief. He then then becomes unwell with fever, sore throat, fatigue and jaundice with lymphadenopathy. He is not neutropenic however is commenced on empirical antibiotic treatment for sepsis of unknown origin, however is not responding. What is the most likely causative organism?

1- EBV

2- MRSA

3- Toxoplasmosis

4- Tuberculosis

**5- CMV**

Q3416. A 19 year old student returns from a back packing trip around Asia. He is brought to A and E very unwell. He has a fever of 41 degrees. This came on suddenly along with severe headaches, localised retroorbitally and severe myalgia and backache. A macular confluent rash appeared a few days into his admission, over his face and flexor surfaces. His conjuctivae are red. He is also complaining of abdominal pain and bleeding gums. What is the most likely diagnosis?

1- Typhoid fever

2- Yellow fever

**3- Dengue fever**

4- Malaria

5- Ebola virus

Q3417. In all non falciparum malaria what is the most appropriate initial treatment of choice?

1- Mefloquine

2- Doxycycline

**3- Chloroquine**

4- Quinine

5- Malarone

Q3418. A 60 year old gentleman with a history of recurrent rhinitis and otitis media, presents with increasing shortness of breath on exertion. A CXR reveal multiple nodules throughout the lungs and a dipstick of his urine reveals a microscopic haematuria and proteinuria. What is the most likely diagnosis?

1- Systemic lupus erythematosus

**2- Wegeners granulomatosis**

3- Glomerulonephritis

4- Goodpastures syndrome

5- Rheumatoid Arthritis

Q3419. A 50 year old male presents with bone pain and lower back pain. On examination there is evidence of kyphosis, frontal bossing of the skull and deafness. What do you expect to find in blood results?

1- High phosphate levels

**2- High ALP levels**

3- Elevated inflammatory markers

4- Low phosphate levels

5- Low calcium levels

Q3420. A 40 year old female with rheumatoid arthritis presents with pain and numbness in the thumb and first 3 fingers. On examination there is reduced sensation over the thumb, whole of the ring and middle finger and radial aspect of the ring finger. There is also wasting of the thenar muscle. What is the most likely diagnosis?

**1- Carpal tunnel syndrome**

2- Peripheral neuropathy

3- Ulnar nerve compression

4- Radial nerve compression

5- De Quervains Tendonitis

Q3421. A 52 year old male presents with malaise, fever, headache and arthralgia. He complains of myalgia on exertion. He describes loss of sensation in his feet and notices his hands turn white and are painful in the cold. He is found to be hypertensive and a raised ESR. What is the most likely diagnosis?

**1- Polyarteritis nodosa**

2- Rheumatoid Arthritis

3- Adult onset Stills disease

4- Polymyalgia rheumatica

5- Systemic lupus erythematosus

Q3422. A 50 year old with obesity and hypertension present with pain and swelling in his left first MTP. On examination there is evidence of swelling and erythema over his first MTP. He is currently on Bendroflumethiazide, amlodipine and ramipril for his hypertension and also aspirin and orlistat. There is nil else of note on examination. An x-ray of his left foot shows reduced join space and calcification. Which drug could be causative?

1- Orlistat

**2- Bendroflumethiazide**

3- Amlodipine

4- Ramipril

5- Aspirin

Q3423. A 50 year old female presents with fatigue and pruritus. Bloods reveal a raised ALP and high normal bilirubin. Antimitochondrial antibodies are found and raised IgM. What is the most likely diagnosis?

**1- Primary Biliary Cirrhosis**

2- Alcohol liver disease

3- Sarcoidosis

4- Autoimmune hepatitis

5- Primary Sclerosing Cholangitis

Q3424. A 50 year old female with known alcohol related liver disease is noted by her husband to be confused and disorientated. She has been recently commenced on furosemide and spironolactone for recurrent ascites. Over the last few days she has complained of increased urinary frequency and dysuria. On examination there was evidence of ascites, which were not tense, and asterixis. Bloods revealed acute renal failure and deranged LFTs. What is the most likely cause of her confusion?

1- Acute renal failure

2- Spontaneous bacterial peritonitis

3- Sepsis

4- UTI

**5- Hepatic encephalopathy**

Q3425. What is the best way to monitor a patient's nutritional status?

1- Weight

2- Serum levels of elements

**3- Clinically**

4- Albumin

5- BMI

Q3426. A 50 year old farm worker presents with a one year history of feeling generally unwell with arthralgia, fever, cough and chest pain. He has also notice that he has intermittent diarrhoea. On examination you find evidence of finger clubbing and a purpuric rash. In the abdomen you find hepatomegaly and a pansystolic murmur is heard of auscultation of the heart. Bloods reveal deranged LFTs and a high ESR and CRP. What investigation would you order to make the definitive diagnosis?

1- Echo

2- Blood cultures

3- CT CAP

**4- Serology testing for coxiella**

5- CXR

Q3427. A 57 year old man presents with epigastric pain radiating through to his back. This has been associated with nausea and vomiting and he has had significant weight loss in the past few months. He is known to be a heavy drinker and smoker. On examination there is evidence of epigastric tenderness. An upper GI endoscopy is performed and reveals oesophagitis. What investigation would you organise next?

1- Urea breath test

**2- CT Abdomen**

3- Colonoscopy

4- CA 19-9

5- Abdominal ultrasound

Q3428. A 70 year old male who has a past medical history of atrial fibrillation and peripheral vascular disease presents with abdominal pain which is crampy in nature. On examination he looks unwell and clammy. He was hypotensive and tachycardic. His abdomen was minimally tender and there was no evidence of peritonism. His inflammatory markers are increased as is amylase. His lactate is elevated at 5. He has been having pain intermittently after eating for some time. What is the most likely diagnosis?

1- Pancreatitis

2- Perforation

3- Uncontrolled Atrial Fibrillation

**4- Mesenteric Ischaemia**

5- Sepsis

Q3429. Which of the following is a contraindication to liver biopsy?

**1- Extrahepatic biliary obstruction**

2- BMI of 29

3- Platelets of 100

4- Transaminases in 1000's

5- INR 1.3

Q3430. A 55 year old patient has chronic liver disease secondary to alcohol and hepatitis C infection. He presents with decompensated liver disease with increasing ascites. There is no evidence of GI bleeding. His AFP is normal. An ultrasound shows a focal lesion within the liver. What is the most likely reason for this decompensation?

1- Spontaneous bacterial peritonitis

**2- Hepatocellular carcinoma**

3- Upper GI bleed

4- Constipation

5- Alcohol binge

Q3431. A patient who is pregnant is suffering from severe nausea and vomiting. She is dehydrated and is found to have deranged LFTs. What is the most likely cause of her deranged LFTs?

1- HELLP syndrome

2- Viral hepatitis

3- Autoimmune hepatitis

4- Obstructive Jaundice

**5- Acute fatty liver of pregnancy**

Q3432. On liver biopsy, what would you expect to find in viral hepatitis?

**1- Acidophil bodies, portal tract inflammation and cholestasis**

2- Fatty change, centrilobular inflammation, Mallorys hyalin

3- Depleted interlobular ducts and granulomas

4- Hyalin globules

5- Liver cell rosettes and plasma cells

Q3433. A 35 year old male who has lived in Barbados for the last few years presents with diarrhoea, which sometimes difficult to flush away. This has caused about 5 kg weight loss. He is very fatigued and feverish at times. He has also noticed some ankle oedema. On examination he looks cachectic. Bloods reveal a macrocytic anaemia, low potassium and calcium levels and albumin levels. A jejunal biopsy reveals incomplete villous atrophy and inflammatory infiltrate. What is the most likely diagnosis?

1- Chronic pancreatitis

2- Coeliac disease

3- Tuberculosis

**4- Tropical sprue**

5- Crohns disease

Q3434. A 65 year old male presents with a shuffling gait, micrographia, feeling stiff and slow movement. He is also having visual hallucinations and has become very forgetful and confused at times. On examination he has cog wheel rigidity in all limbs, a shuffling gait and impaired postural reflexes. His MMSE is 22/30. What is the most likely diagnosis?

1- Alzheimers disease

**2- Lewy Body Dementia**

3- Vascular dementia

4- Multi system atrophy

5- Parkinsons Disease

Q3435. Which of the following is most useful in differentiating progressive supranuclear palsy from Parkinsons disease?

1- Severity of symptoms

**2- Difficulty looking up and down**

3- Falls

4- Lack of tremor

5- Dementia

Q3436. A 45 year old female presents to her GP as she is worried about a tremor in her left hand that is worse when she is doing things. Her mother had a similar tremor. The rest of her examination is unremarkable. She is commenced on propanolol however cannot tolerate the side effects. What is an alternative management?

1- l-Dopa

2- Amantadine

3- Reassure

**4- Primidone**

5- Procyclidine

Q3437. A 37 year old male with HIV is brought to A+E with a 6 week history of behavioural and personality change. On examination there is evidence of conjugate gaze abnormality and ataxia. There is also left arm weakness. An MRI is performed and reveals on T2 weighted images multiple bilateral hyperintense lesions predominantly in periventricular and subcortical white matter. What is the most likely diagnosis?

**1- Progressive Multifocal Leucoencephalopathy**

2- Multiple Sclerosis

3- CMV Encephalitis

4- Cerebral Toxoplasmosis

5- Cryptococcosis

Q3438. What is the most appropriate drug to commence in Trigeminal Neuralgia?

1- Diazepam

**2- Carbamazepine**

3- Amitriptyline

4- Pregabalin

5- Gabapentin

Q3439. A 72 year old male presents to GP with a three day history of severe right earache. He describes this as a burning sensation in the ear. He is also suffering from vertigo and loss of taste. On examination there is a right sided facial weakness. Which of the following is the most likely diagnosis?

1- Otitis media

2- Cholesteatoma

3- Stroke

4- Cerebellopontine angle tumour

**5- Ramsay Hunt syndrome**

Q3440. A 72 year old male presents to his GP with severe right sided facial pain affecting his cheek. They occur intermittently and he can have several within an hour. They affect the upper part of the face, are very sudden and last a few seconds or so. It is aggravated by the cold. He has no PMH. On examination there is reduced sensation in the right cheek and forehead and loss of corneal reflex. What is the most likely diagnosis?

1- Idiopathic trigeminal neuralgia

2- Partial Seizure

3- Herpetic Trigeminal Neuralgia

**4- Compression of Trigeminal nerve by tumour**

5- Toothache

Q3441. A 50 year old female is having recurrent falls. She feels this is secondary to weak legs and finds it difficulty to walk up stairs or get up from a chair. He has no significant PMH except he is on ramipril for hypertension. On examination he has 4/5 power in knee extension bilaterally and in hand grip. There is nil else of note. What is the most likely diagnosis?

1- Subacute degeneration of the Cord

2- Cervical cord compression

**3- Inclusion body myositis**

4- Limb Girdle muscular dystrophy

5- Multiple Sclerosis

Q3442. A 32 year old female presents with acute painful reduction of vision in her right eye and double vision. There was a previous investigation of paraesthesia of the leg and transverse myelitis which both self resolved. A lumbar puncture reveals oligoclonal bands and an MRI reveals plaques in the periventricular region, brainstem and cervical cord. There is a delay in visual evoked response. Which treatment can be used to try to reduce relapses long term?

1- Nil

2- Methylprednisolone

3- Prednisolone

4- Plasmapheresis

**5- Interferon beta**

Q3443. A 38 year old female presents to her GP with recurrent occipital headaches and neck pain. These are aggravated by coughing. She has been suffering from them for years. She also sometimes complains of double vision and photophobia. She has no other symptoms. On examination the only abnormal finding is downbeat nystagmus. An MRI is performed. What would you expect to see on an MRI?

1- Syringomyelia

2- Nil

3- Herniation of lower brainstem through foramen magnum

4- Hydrocephalus

**5- Herniation of cerebellar tonsils through foramen magnum**

Q3444. A 68 year old female is brought to her GP by her husband. He states she has become very forgetful of late and is unable to concentrate. He has also noticed over the last few months that she is incontinent of urine and has been walking in an unusual way. On examination there is evidence of gait apraxia and her reflexes are brisk. What is the most likely diagnosis?

1- Lewy body dementia

2- Picks disease

**3- Normal pressure Hydrocephalus**

4- Parkinsons disease

5- Alzheimers disease

Q3445. A patient who has suffered from a parietal lobe infarct is having difficulty reading. Which of the following is the most likely explanation?

1- Neglect

**2- Inferior Homonymous Quadrantanopia**

3- Agnosia

4- Superior Homonymous Quadrantanopia

5- Sensory loss

Q3446. Which of the following is thought to be the most important activator of glucokinase transcription within the liver?

**1- Insulin activating sterol regulatory element binding protein 1c**

2- Glucagon activating sterol regulatory element binding protein 1c

3- Glucose activating sterol regulatory element binding protein 1c

4- Glucokinase regulatory protein

5- Insulin inhibiting sterol regulatory element binding protein 1c

Q3447. A 54 year old gentleman who is a smoker presents with a dry cough and weight loss. He is also constipated with some abdominal pain has urinary frequency and is feeling fatigued and depressed. He is found to have a calcium of 3.0 mmol/l. What is the most likely diagnosis?

1- Addisons

2- Sarcoidosis

**3- PTH like peptide secretion secondary to malignancy**

4- Thyrotoxicosis

5- Hyperparathyroidism

Q3448. In a pituitary adenoma which hormone is likely to be present in elevated amounts?

1- FSH

2- ACTH

**3- Prolactin**

4- TSH

5- GH

Q3449. A 42 year old male presents with intermittent headaches, palpitations, anxiety , tremor and sweating. These attacks have been becoming more frequent and he is hypertensive. A 24 hour urine shows raised catecholamines. How should you manage this patient?

1- Beta blocker

2- Surgery

**3- Alpha blocker, followed by beta blocker once established then surgery**

4- Antidepressant

5- Alpha blocker

Q3450. A patient is commenced on carbimazole for hyperthyroidism. How often should there TFTs be measured for dose alteration?

**1- Monthly**

2- 6 monthly

3- 2 monthly

4- Weekly

5- 6 weekly

Q3451. What warning would you give to a pregnant patient if there is evidence of positive thyroid autoantibodies but whose TFTs reveal she is euthyroid?

1- Increased risk of myxoedema coma during pregnancy

2- High risk of neonatal hypothyroidism

3- Increased risk of thyrotoxic storm whilst pregnant

**4- Increased risk of spontaneous abortion**

5- No warning required

Q3452. A patient suffering from hypothyroidism has her dose increased and has her bloods checked one week later. Her TSH and free T4 is elevated. What should you do with the dose of medication?

1- No change in dose and repeat bloods in 3 months

2- No change in dose and repeat bloods in one week

3- Decrease dose

4- Increase dose

**5- No change in dose and repeat bloods in another 3 weeks**

Q3453. In a caucasian patient, with poorly controlled type 2 diabetes mellitus and a BMI of 50, who is already on maximal metformin and sulphonylurea, which of the following is likely to be the most appropriate drug to add to his current management?

**1- Exenatide**

2- Pioglitazone

3- Acarbose

4- Insulin

5- Sitagliptin

Q3454. A 68 year old male has been suffering from a cough productive of green sputum and shortness of breath He is brought to A and E drowsy and confused. He is found to have a sodium of 115 mmol/L, normal renal function, with a plasma osmolality of 260 mOsmol/kg and urine osmolality of 500 mOsm/kg and urinary sodium of 145 mmol/L. What is the most likely cause of the hyponatraemia?

1- Fluid overload

**2- SIADH**

3- Hypothyroidism

4- Addisons Disease

5- ARF

# Chapter 22 2012 September

Q3455. A 19 year old patient presents with palpitations and light headedness. She was previously commenced on a beta blocker for this as an ECG revealed a short PR interval and Q waves in lead II, III and aVF. In the long term, what is the most appropriate management?

**1- Radio frequency ablation**

2- Digoxin

3- Amiodarone

4- Verapamil

5- Increased does of beta blocker

Q3456. What is the mechanism of action of clopidogrel?

1- Potentiates factor X

2- Potentiates antithrombin

**3- Blocks Platelet ADP Receptors**

4- Blocks prostaglandin production

5- Glycoprotein IIb/IIIa receptor antagonist

Q3457. A 50 year old female prents with shortness of breath, fatigue and peripheral oedema. On examination she has a raised JVP, pitting oedema, hepatomegaly and ascites. An echo is organised and reveals globally thickened walls oncluding the interatrial septa with atrial dilatation but the ventricles are not dilated. There is an increased scintillation pattern (granular specklin g) . There is a normal ejection fraction. An ECG shows low voltage complexes. Given the most likely diagnosis, which drug should she be advised to avoid?

1- Furosemide

2- Bendroflumethiazide

**3- Digoxin**

4- Ramipril

5- Amiodarone

Q3458. A 50 year old man was admitted with central crushing chest pain. He is a smoker and is on ramipril fro hypertension which has not been well controlled. He is found to have ST depression in leads I, II, aVL, V4 V6 and his 12 hour troponin was 1.0. He underwent angiography and stent insertion. Three days later he is complaining of the same crushing central chest pain. A repeat ECG showed the same ST depression. Which enzyme should be measured to assess if there is further damage to the myocardium?

1- Troponin T

2- Troponin I

3- LDH

4- AST

**5- CKMB**

Q3459. A patient has just suffered a STEMI and is now found to be in complete heart block. What vessel is likely to have been involved?

1- Left marginal artery

2- Left circumflex artery

3- Left coronary artery

4- Left anterior descending artery

**5- Right coronary artery**

Q3460. A 70 year old man with Chronic Renal Impairment and Hypertension presents with chest pain and is found to have an acute anterolateral myocardial infarction. He is referred for PCI. 2 days later you are asked to review him as his legs appear dusky and his left big and second toe are blue and there is evidence of splinter haemorrhages on his toe nails. His BP is 150/90 mmHg and his pulse is regular and has a rate of 80 bpm. On auscultation his heart sounds are normal however there is evidence of a left femoral bruit.

1- Renal artery stenosis

2- Embolism from Femoral Artery

3- Contrast Nephropathy

4- Peripheral Vascular Disease

**5- Cholesterol embolism**

Q3461. A 50 year old gentleman presents with central chest pain with associated autonomic features. He looks grey and clammy and on auscultation his heart sounds are normal but there is bibasal crackles. His heart rate is 80 bpm and his blood pressure is 103/60 mm Hg. His ECG revealed ST elevation V1 to V4 and ST depression II, II and aVF. He is referred for Primary PCI. What is likely to be found at angiography?

1- Complete occlusion of right coronary artery

**2- Complete occlusion of left anterior descending artery**

3- Vasospasm

4- 80 per cent stenosis of left circumflex artery

5- 70 per cent stenosis of left anterior descending artery

Q3462. A 70 year old female with heart failure on ramipril, furosemide and bisoprolol presents with increasing shortness of breath. What is the most appropriate management?

1- Add ISMN

2- Add digoxin

3- Stop bisoprolol

**4- Add spironolactone**

5- Increase furosemide

Q3463. Which of the following indicates a high risk of successfully completing suicide?

**1- Previous unsuccessful attempt**

2- Female sex

3- Father killed himself

4- Alcoholism

5- Previous diagnosis of bipolar disease

Q3464. A patient with a 6 month history of low mood and some suicidal thoughts is discussing her treatment options. Which of the following is the best pharmacological treatment?

1- Lorazepam

**2- Fluoxetine**

3- Haloperidol

4- Amitriptyline

5- Selegiline

Q3465. A 29 year old woman complains of headaches, upset stomach, jaw pain, sore muscles and difficulty sleeping. Full examination reveals no medical issues. She doesnt accept that nothing was found during the investigations and seeks a second opinion. What is the diagnosis?

**1- Somatisation disorder**

2- Personality disorder

3- Conversion disorder

4- Psychosis

5- Hypochondriac

Q3466. You are asked to see a 70 year old man with memory problems. He has problems recalling past events from his life and he is unable to recall a list of everyday items. He cannot tell you where he is or the month of the year, and gives bizarre answers to many of your questions. What is the diagnosis?

1- Post ictal state

2- Stroke

3- Vascular dementia

**4- Korsakoffs syndrome**

5- Early signs of Alzheimers

Q3467. Which of the following medications is mostly likely to cause galactorrhoea as a side effect?

**1- Risperidone**

2- Fluoxetine

3- Olanzapine

4- Clozapine

5- Quetiapine

Q3468. PiZZ genotype is at increased risk of which condition?

1- Pancreatic Cancer

**2- Alpha 1 antitrypsin**

3- Breast Cancer

4- Colorectal Cancer

5- Asthma

Q3469. Faecal calprotectin is regularly raised in which of the following?

1- Acute pancreatitis

**2- Inflammatory bowel disease**

3- Irritable bowel disease

4- Coeliac disease

5- Chronic pancreatitis

Q3470. Which of the following is a tumour marker for breast cancer?

1- CA 125

2- CA 19-9

3- HCG

4- CEA

**5- CA 15-3**

Q3471. What is the P1 receptor responsible for?

1- Immunosuppression

2- Histamine release

3- Downregulation of insulin receptors

**4- Apoptosis**

5- Glucose uptake into the cell

Q3472. What type of myocardial infarct has occurred if there is ST elevation in leads I, aVL, and V4 to V6?

1- Posterior Infarct

**2- Anterolateral STEMI**

3- Lateral STEMI

4- Inferior STEMI

5- Inferior NSTEMI

Q3473. Which of the following requires parenteral replacement after gastrectomy?

1- Iron

2- Vitamin D

**3- Vitamin B12**

4- Vitamin K

5- Vitamin A

Q3474. Which of the following is not true regarding pulmonary surfactant?

1- Increases pulmonary compliance

2- Produced by type II alveolar cell

**3- Produced by type I alveolar cells**

4- Lowers surface tension

5- Hydrophilic and hydrophobic region

Q3475. Prolactin leads to suppression of which of the following?

1- ADH

**2- Oestradiol**

3- Thyroid

4- Nil

5- Growth hormone

Q3476. A 72 year old female with a past medical history of hypertension and type 2 diabetes mellitus presents with fatigue, bone pain and feeling weak. On examination there is evidence of bony tenderness in her spine and legs and proximal muscle weakness. Bloods reveal elevated creatinine, phosphate and parathyroid hormone levels and a low calcium. Which of the following should be commenced?

1- Risedronate

**2- Alfacalcidol**

3- Strontium ranelate

4- Cinacalcet

5- Cholecalciferol

Q3477. A gentleman has recently been commenced on a new antianginal medication. He has noticed that he has began to develop ulcers in his mouth. Which of the most following is the likeliest cause?

1- Diltiazem

2- Isosorbide Mononitrate

**3- Nicorandil**

4- Amlodipine

5- Atenolol

Q3478. A 52 year old female presents to her GP as she feels she is "going through the change". Her periods stopped about 1 year ago and she is suffering from hot flushes and sweating. She is having difficulty sleeping because of this and she has missed a few days of work due to tiredness and feels embarrassed in work when she is having flushes. She has a history of migraines. Her FSH is 40 IU/L and other bloods including TFTs are normal. What is the next course of action?

**1- Commence HRT - continuous combined transdermal patches**

2- Commence HRT - continuous combined oral

3- Nil specific

4- Low dose vaginal oestrogen

5- Commence HRT - cyclical combined transdermal patches

Q3479. A patient is suspected of ingesting ethylene glycol. She is found to be acidotic and hypocalcaemic. She is given fomepizole. What is its mechanism of action?

1- Increases metabolism of ethylene glycol

2- Restores glutathione store

**3- Competitive inhibition of alcohol dehydrogenase**

4- Chelates toxic metabolites

5- Inhibitor of ethylene glycol

Q3480. Gastrin leads to hydrochloric acid secretion from parietal cells both directly and indirectly. Which of the following is the best description of the indirect mechanism?

1- Binds to gastrin receptor on ECL cells which then hydrogen ions

2- Binds to gastrin receptor on ECL cells which then secrete prostaglandins

**3- Binds to gastrin receptors on ECL cells which then release histamine**

4- Binds to gastrin receptors on parietal cell

5- Bind to histamine receptors on parietal cells

Q3481. A patient with rheumatoid arthritis presenting with increasing dyspnoea. Which of the following drugs is most likely responsible?

1- Sulphasalazine

2- Gold

3- Hydroxychloroquine

4- NSAIDs

**5- Methotrexate**

Q3482. A 68 year old male is being treated for a UTI. He suffers an achilles tendon rupture. Which of following antibiotic is he most likely to be taking?

**1- Ciprofloxacin**

2- Coamoxiclav

3- Nitrofurantoin

4- Amoxicillin

5- Trimethoprim

Q3483. Which of the following is the most appropriate regime for neutropenic sepsis?

1- Tazocin and metronidazole

**2- Tazocin and gentamicin**

3- Coamoxiclav and clarithromycin

4- Coamoxiclav

5- Vancomycin

Q3484. Low molecular weight heparins do not normally require to be monitored. However if required how can LMWH be monitored?

1- APTT

2- PT

3- Platelets

4- INR

**5- anti factor Xa assay**

Q3485. Before commencing azathioprine therapy, which of the following should be measured?

1- Liver function

2- Full blood count

**3- Thiopurine S methyltransferase**

4- 6 mercaptopurine

5- Renal function

Q3486. What is the mechanism of action of Fondaparinux?

1- Irreversibly binds directly to factor Xa, inhibiting it

2- GP IIb/IIIa inhibitor

3- Reversible binding of factor Xa, inhibiting it

4- ADP receptor blocker

**5- Selectively inhibits factor Xa through antithrombin III**

Q3487. A 45 year old female who is currently on theophylline for poorly controlled asthma is commenced on treatment for a UTI. The next day she is suffering from nausea and vomiting. On examination she is tachycardic. What antibiotic is she likely to have been commenced on?

**1- Ciprofloxacin**

2- Trimethoprim

3- Nitrofurantoin

4- Co amoxiclav

5- Amoxicillin

Q3488. A 32 year old Cypriot female is found to have a hypochromic microcytic anaemia with target cells. Her iron and ferritin are at the higher end of normal and her Hb A2 is 6%. What is the most likely diagnosis?

**1- Beta thalassaemia trait**

2- Sideroblastic anaemia

3- Alpha thalassaemia minor

4- Anaemia of chronic disease

5- Iron deficiency anaemia

Q3489. A patient with ALL receives an allogeneic bone marrow transplant. He then about one week later develops fever with an erythrodermic rash with desquamation. He also appears jaundice and is suffering from severe watery diarrhoea. Given the most likely diagnosis, which of the following reduces the risk of the development?

1- Antifungals

**2- Nonmyeloablative allogeneic stem cell transplantation**

3- Broad spectrum antibiotics

4- Corticosteroids

5- Antivirals

Q3490. What is the mechanism of thrombophilia due to factor V Leiden mutation?

1- Resistant to activated protein S mediated inactivation

2- Increased sensitivity to activated protein S mediated inactivation

**3- Resistant to activated protein C mediated inactivation**

4- Resistant to antithrombin III inactivation

5- Increased sensitivity to activated protein C mediated inactivation

Q3491. Which of the following chemotherapy agents does not cause peripheral neuropathy?

1- Thalidomide

2- Docetaxel

3- Cisplatin

**4- Bleomycin**

5- Vincristine

Q3492. clinic due to a slightly elevated platelet count which has been repeated several times during the year. She is very well and states she has no PMH but had an operation as child although she is unsure of what this was for. Her Haemoglobin and white cell count is normal. A blood film does not show giant platelets or platelet clumps but does reveal Howell Jolly bodies. How would you investigate next?

1- Tumour markers

**2- Repeat history and examination for indication of a splenectomy**

3- Haematinics

4- Septic screen

5- Bone Marrow Biopsy

Q3493. A 47 year old male is undergoing chemotherapy for high grade non Hodgkins Lymphoma with bulky disease. Which of the following should be administered before commencing chemotherapy?

1- Dexamethasone

**2- IV Hydration and Allopurinol**

3- Nil required

4- IV Hydration

5- IV sodium bicarbonate

Q3494. A 64 year old male presents with general malaise, weight loss and night sweats. He also complains of abdominal discomfort in the left upper quadrant. On examination there is evidence of massive splenomegaly. Bloods revealed a low haemoglobin and neutropenia. A blood film reveals leukoerythroblastosis with tear drop poikilocytosis and megakaryocyte fragments. What is the most likely diagnosis?

1- Chronic myeloid leukaemia

2- Non Hodgkins Lymphoma

3- Myelodysplasia

4- Acute lymphoblastic leukaemia

**5- Myelofibrosis**

Q3495. A 35 year old female presents with her second DVT. She has also had four miscarriages and has livedo reticularis. She has no other past medical history and is not on any regular medications. Which of the following will be useful in confirming the suspected diagnosis?

1- Coagulation profile

2- Protein S level

3- Protein C level

4- Factor V leiden mutation

**5- Anticardiolipin antibodies**

Q3496. How is Klinefelters syndrome diagnosed?

1- PCR analysis

2- Thyroid testing

**3- Karyotype**

4- Mitochondrial analysis

5- CT head

Q3497. What is the inheritance pattern of cystic fibrosis?

1- Mitochondrial disorder

2- Autosomal dominant

3- X linked recessive

**4- Autosomal recessive**

5- X linked dominant

Q3498. A young man speaks to his GP as he is concerned about having a heart attack. His father had a heart attack aged 41, his grandfather died of a heart attack aged 58 and 2 of his uncles have had heart attacks in their 40s. What is the most likely genetic background?

1- Familial lipoprotein lipase deficiency

2- Familial hypertriglyceridemia

3- Familial apoprotein CII deficiency

**4- Familial hypercholesterolaemia**

5- Hyperhomocysteinaemia

Q3499. Which of the following genes is abnormal in Marfans syndrome?

1- Collagen type III

2- Collagen type I

**3- Fibrillin 1**

4- Collagen type II

5- Fibroblast growth factor 1

Q3500. A 45 year old male with end stage renal failure requires regular haemodialysis. He is found to be hypocalcaemic. An Xray of his hands reveals loss of cortical outline with fine fraying at the tip of the terminal phalanges. Which of the following is the most likely diagnosis?

1- Osteopenia

**2- Secondary Hyperparathyroidism**

3- Primary Hyperparathyroidism

4- Amyloid deposition

5- Osteoporosis

Q3501. A 55 year old male with type 2 diabetes mellitus has chronic kidney disease. He has had a previous episode of nephrotic syndrome and has persistent proteinuria. His creatinine and eGFR have been static. He presents with three episodes of painless frank haematuria. Bloods do not reveal any worsening of his eGFR or creatinine. There is nil of note on examination. There is no evidence of suprapubic tenderness or sepsis and he is not complaining of abdominal pain. There is no leucocytes or nitrates on urinalysis. A renal ultrasound shows no serial change.

1- Intravenous Urography

**2- Cystoscopy**

3- CT KUB

4- Urine culture

5- Renal Biopsy

Q3502. A patient is found to have hypokalaemia, hypercholaraemic acidosis and a urinary pH of 6.0. What type of renal tubular acidosis does this indicate?

**1- Type 2**

2- Type 3

3- Does not indicate renal tubular acidosis

4- Type 4

5- Type 1

Q3503. Which of the following is the most common composition of renal stones?

1- Uric acid

2- Calcium phosphate

3- Ammonium magnesium phosphate

**4- Calcium oxalate**

5- Cysteine

Q3504. A 28 year old female presents to her GP with joint pain , fever, a butterfly rash and fatigue. She has marked peripheral oedema. She is found to be hypertensive, in acute renal failure, low albumin levels and proteinuria. A renal biopsy is performed and reveals focal glomerulonephritis with subendothelial and mesangial immune deposits. What is the most likely diagnosis?

**1- Lupus nephritis Class III**

2- IgA nephropathy

3- Lupus nephritis class II

4- Membranous glomeurlonephritis

5- Lupus nephritis class I

Q3505. In hereditary angio-oedema (HA E) , what is likely to be helpful in diagnosis?

1- Drug history of taking ACE inhibitors

**2- Persistently low C4 levels**

3- Persistently low C3 and C4 levels

4- Persistently low C3 levels

5- ANA

Q3506. A patient presents with acute hereditary angioedema. On examination there is evidence of stridor. How do you manage this patient?

1- IM Adrenaline

2- IV Chlorphenamine

**3- C1 inhibitor concentrate**

4- IV Fluids

5- IV hydrocortisone

Q3507. Which of the following is a live vaccine?

1- Hepatitis vaccination

2- Salk polio vaccination

3- Pertussis vaccination

4- Cholera vaccination

**5- Yellow fever vaccination**

Q3508. In cryoglobulinaemia, what is the most likely diagnosis if there is both a monoclonal and polyclonal element?

1- Haematological malignancy

**2- Hepatitis C**

3- Rheumatoid arthritis

4- Amyloidosis

5- Hepatitis B

Q3509. A 37 year old presents with fatigue, weight loss and nausea. He describes episodes of haemoptysis and has noticed his urine being very dark. On examination he has bibasal crepitations. His bloods reveal an iron deficiency anaemia and renal impairment and urinalysis reveals proteinuria and microscopic haematuria. Which autoantibody would you expect to find?

1- Anti dsDNA

2- pANCA

3- cANCA

4- Rheumatoid factor

**5- Anti GBM**

Q3510. A 48 year old female presents with dyspnoea and syncope on exertion. She is a non smoker and has no past medical history. On examination she has a raised JVP, right parasternal heave, loud pulmonary second heart sound and peripheral oedema. Her chest is clear. An ECG reveals right ventricular strain pattern and CXR shows prominent pulmonary arteries. She now admits to having used fenfluramine in the past. What is the most likely diagnosis?

1- Asthma

2- COPD

**3- Primary pulmonary hypertension**

4- Multiple recurrent pulmonary embolus

5- Aortic stenosis

Q3511. A 52 year old male who keeps pigeons presents to his GP. He states for some months he has had a productive cough, shortness of breath on exertion, fatigue, anorexia and has lost 2 stones in weight. On examination there is bibasal inspiratory crackles. A CXR reveals reticulonodular shadowing. What is the most likely diagnosis?

**1- Extrinsic Allergic Alveolitis**

2- Mesothelioma

3- Cryptogenic Allergic Alveolitis

4- Congestive Cardiac Failure

5- Sarcoidosis

Q3512. A 52 year old male who keeps pigeons presents to his GP. He states for some months he has had a productive cough, shortness of breath on exertion, fatigue, anorexia and has lost 2 stones in weight. On examination there is bibasal inspiratory crackles. A CXR reveals reticulonodular shadowing. What is the most likely diagnosis?

1- ABPA

2- Sarcoidosis

3- Cardiac Failure

4- Cryptogenic Allergic Alveolitis

**5- Extrinsic Allergic Alveolitis**

Q3513. Which of the following is not a contraindication for surgical treatment of a bronchial carcinoma?

1- Widespread lymph node involvement

2- FEV1 <1.5l

3- Malignant pleural effusion

**4- Paraneoplastic syndrome**

5- Brain Metastases

Q3514. A patient with Goodpastures syndrome is found to have an elevated diffusion capacity. What is the likely cause of this elevation?

1- Smoking

2- Pulmonary embolus

3- COPD

4- Asthma

**5- Pulmonary Haemorrhage**

Q3515. Which of the following organisms is one of the most common colonising agents in cystic fibrosis?

1- Moraxella catarrhalis

2- Streptococcus pneumoniae

**3- Pseudomonas aeruginosa**

4- Mycobacteria species

5- Burkholderia cepacia

Q3516. A 44 year old smoker presents with increasing shortness of breath. She states she has fainted a couple of times on exertion. On examination there is a right ventricular heave and loud pulmonary second heart sound and an ECG shows right ventricular hypertrophy. Her chest is clear. A CXR is performed and is normal. What investigation should be performed for the definitive diagnosis?

**1- CTPA**

2- Coagulation screen

3- Pulmonary function tests

4- Exercise tolerance test

5- D dimers

Q3517. A 19 year old male presents with dysuria and a mucopurulent discharge from his urethra. The causative agent is a gram negative intracellular diplococci. What is the most likely diagnosis?

**1- Gonorrhoea**

2- Human papilloma virus

3- Chlamydia

4- Syphilis

5- Herpes simplex virus

Q3518. A 33 year old male with HIV presents unwell. He has a cough productive of green sputum, is short of breath and is pyrexial. He is noticed to desaturate on minimal exertion. On examination there is a few crackles bibasally. A chest X ray reveal perihilar bilateral diffuse infiltrates. Which of the following should be utilised for prophylaxis to prevent the development of this infection?

**1- Co-trimoxazole**

2- Erythromycin

3- Cefalexin

4- Amoxicillin

5- Doxycycline

Q3519. A 42 year old male who is being treated for lung cancer with chemotherapy has required a blood transfusion for symptomatic relief. He then then becomes unwell with fever, sore throat, fatigue and jaundice with lymphadenopathy. He is not neutropenic however is commenced on empirical antibiotic treatment for sepsis of unknown origin, however is not responding. What treatment should be initiated?

1- Meropenem

2- Fluconazole

3- Rifampicin

**4- Ganciclovir**

5- Aciclovir

Q3520. A 26 year old patient is brought to A and E very unwell with headache, neck stiffness, photophobia and fever. A lumbar puncture is performed and reveals a glucose of more than half of serum, a protein of 0.6 g/L and predominantly mononuclear cells. What is the most likely diagnosis?

1- Tuberculosis Meningitis

**2- Viral Meningitis**

3- Subarachnoid Haemorrhage

4- Migraine

5- Bacterial Meningitis

Q3521. A 42 year old male with Acute Myeloid Leukamia who has recently underwent chemotherapy is found to be pyrexial. He feels generally unwell. He is commenced on IV gentamicin and tazocin however 2 days later he is still unwell and pyrexial. Which of the following should you then consider commencing?

1- IV fluconazole

2- Nil

**3- Amphotericin B**

4- Add IV meropenem

5- Add IV vancomycin

Q3522. A 55 year old male has been admitted to ITU with severe sepsis. He had required ventilation and multiple antibiotics due to resistance. He has recovered and has been transferred to the ward after 2 weeks in ITU. Unfortunately he becomes unwell and feverish. He has a cough productive of green sputum. A CXR confirms pneumonia. You are concerned about possible MRSA pneumonia. Which of the following is an appropriate antibiotic regime?

**1- Meropenem and gentamicin and vancomycin**

2- Co-amoxiclav and clarithromycin

3- Amoxicillin and Metronidazole

4- Ceftriaxone

5- Vancomycin

Q3523. A 22 year old male has recently had unprotected sex and has notices the development of a firm lesion on his penis. He states it begin as a small bump which then ulcerated and the became a firm lesion. It is not painful. He has associated inguinal lymphadenopathy which is not painful. You suspect syphilis however his EIA, FTA abs, TPHA and VDRL are negative. Which other test if positive will confirm early primary syphilis?

**1- Positive dark ground microscopy**

2- CSF sample

3- Blood cultures

4- Negative dark ground microscopy

5- Repeat VDRL in a few weeks

Q3524. A patient is commenced on vancomycin, rifampicin and gentamicin for an MRSA infective endocarditis. However the patient has an allergy to vancomycin. Which of the following is an appropriate alternative?

1- Meropenem

2- Metronidazole

3- Ceftriaxone

4- Fluconazole

**5- Daptomycin**

Q3525. A 75 year old female with known osteoarthritis presents with a painful thumb. She is otherwise well and there is no history of trauma. On examination there is swelling and tenderness in the first carpometacarpal joint. She is apyrexial. Blood tests are normal. What is the most likely diagnosis?

1- Gout

**2- Osteoarthritis**

3- Rheumatoid arthritis

4- Pseudogout

5- Fracture

Q3526. A 50 year old man presents with joint pain affecting his knee and wrist. He has been feeling generally unwell. On examination there is evidence of a target shaped rash on his shin and there is generalised lymphadenopathy. Which investigation will be helpful for the diagnosis?

1- Skin biopsy

2- Inflammatory markers

3- Autoantibodies

**4- Antibody titre for Borrelia burgdorferi**

5- Blood culture

Q3527. A 50 year old gentleman with a history of type 2 Diabetes Mellitus and hypertension and who is obese presents with a painful, swollen knee. An X-ray reveals chondrocalcinosis and a joint aspiration is performed and it reveals on microscopy numerous neutrophils and rhomboid-shaped crystals, which are weakly positive birefringent. Which of the following is the most likely diagnosis?

1- Septic arthritis

2- Gout

3- Reactive Arthritis

**4- Pseudogout**

5- Rheumatoid Arthritis

Q3528. A 63 year old female is found to have a pathological fracture of her femur. An Xray showed patchy sclerosis, thickening of the trabeculae and loss of distinction between the trabeculae and cortex. What treatment should be initiated?

1- Raloxifene

2- Calcitonin

**3- Bisphosphonate**

4- Strontium

5- Calcium and vitamin D supplements

Q3529. A 25 year old male presents with pain and swelling in the left knee. He is also complaining of low back pain and malaise. He has also noticed that it has been painful when he is urinating. He has recently had unprotected sex. A joint aspiration does not culture any microorganisms but there is elevated neutrophils. He is intolerant to NSAIDs. Which of the following is the next most appropriate management choice?

1- IM Diclofenac

**2- Intra-articular steroid injection**

3- Methotrexate

4- Paracetamol

5- Sulfasalazine

Q3530. A 25 year old gentleman presents to his GP with pains in his left knee and ankles. He is also suffering from dysuria and red eye. He has noticed plaques on the palms of his hands and soles of his feet and a rash on his glans penis. What is the most likely diagnosis?

**1- Reiters syndrome**

2- Rheumatoid arthritis

3- Psoriatic Arthritis

4- Reactive arthritis

5- SLE

Q3531. Which of the following formulae defines the positive predictive value?

1- (Number of True Negative s) /((Number of True Negative s) +(Number of False Positive s) )

2- (Number of True Negative s) /((Number of True Negative s) +(Number of False Negative s) )

3- (Number of True Positive s) /((Number of True Negative s) +(Number of False Positive s) )

**4- (Number of True Positive s) /((Number of True Positive s) +(Number of False Positive s) )**

5- (Number of True Positive s) /((Number of True Positive s) +(Number of False Negative s) )

Q3532. A 38 year old male with known alcohol excess presents after vomiting up large amounts of fresh blood. On examination he is hypotensive and tachycardic and there is evidence of ascites and peripheral stigmata of liver disease.. He is fluid resuscitated. What else would you do initially?

1- IV antibiotics

**2- IV terlipressin and antibiotics**

3- IV somatostatin

4- Sengstaken tube

5- Upper GI endoscopy

Q3533. A 69 year old male presents with pyrexia of unknown origin. He has no previous medical history. He has had some recent dental work. On examination he is found to be pyrexial with a temperature of 38.5oC. On auscultation of the heart there is evidence of a pansystolic murmur in the apical region. An echo is organised and reveals a vegetation and blood cultures reveal S. bovis. He is started on IV antibiotics. What investigation must be organised for this patient?

1- Upper GI endoscopy

2- Nil required

3- Repeat blood cultures

**4- Colonoscopy**

5- Repeat echo

Q3534. A 19 year old female presents with a few month history of abdominal pain, watery diarrhoea and weight loss. She has noticed on a few occasions redness of her eye causing some discomfort and bruise like lesions on her shins. A colonoscopy is performed and reveals a cobblestone appearance. Which of the following would you not expect to find on biopsy?

1- Skip lesions

2- Non caseating granulomas

3- Goblet cells present

4- Transmural inflammation

**5- Goblet cell depletion**

Q3535. A 40 year old gentleman presents with a dysphagia to both solids and liquids. He sometimes regurgitates his food. He has not lost any weight. You organise a barium swallow which reveals a dilated oesophagus with a narrowing at the end of the oesophagus. What is the most appropriate long term management of the most likely diagnosis?

1- Isosorbide mononitrate

**2- Balloon dilatation**

3- Botox Injection

4- Nifedipine

5- Oesophagectomy

Q3536. What therapy can be utilised, following a variceal bleed to reduce risk of further bleeding?

1- Nil

2- Terlipressin

3- Albumin

**4- Propanolol or carvedilol**

5- Amlodipine

Q3537. to reduce relapses long term?

1- Prednisolone

2- Methylprednisolone

**3- Interferon beta**

4- Plasmapheresis

5- Nil

Q3538. A 45 year old female presents to her GP as she is worried about a tremor in her left hand that is worse when she is doing things. Her mother had a similar tremor. The rest of her examination is unremarkable. She is commenced on propanolol however cannot tolerate the side effects. What is an alternative management?

1- l-Dopa

2- Procyclidine

3- Amantadine

4- Reassure

**5- Primidone**

Q3539. A patient who has suffered from a parietal lobe infarct is having difficulty reading. Which of the following is the most likely explanation?

1- Neglect

2- Agnosia

**3- Inferior Homonymous Quadrantanopia**

4- Superior Homonymous Quadrantanopia

5- Sensory loss

Q3540. Regarding C peptide, which of the following is true?

**1- C peptide cleavage occurs in secretory vesicles of the Golgi apparatus**

2- C peptide levels are low with insulinoma

3- C peptide is raised in inflammatory disease

4- C peptide is absent in type 2 diabetes

5- High C peptide levels in a hypoglycaemic patient suggests factitious

Q3541. A patient presents with an itchy rash. It started on the flexor surface of the wrists and spread to the forearms and is now also present on her shins and lumbar back. On examination there was evidence of red papules with white streaks and there was occasional blisters. She is otherwise well and on no medication. Which of the following is the most likely diagnosis?

1- Pustular Psoriasis

**2- Lichen Planus**

3- Dermatitis Herpetiformis

4- Atopic Dermatitis

5- Pemphigus Vulgaris

Q3542. A 30 year old male presents with recurring painful genital ulcers and oral ulcers. He also has a painful red eye and painful joints. What is the most likely diagnosis?

1- Syphilis

2- Herpes Simplex

**3- Behcets syndrome**

4- Reiters syndrome

5- Stevens Johnson Syndrome

Q3543. A 37 year old male notices a blistering rash on his hands developing after working on a sunny day in the garden. This has occurred previously and led to some scarring. He has also noticed some hair developing on his cheek. What investigation would you perform to confirm the diagnosis?

1- Skin biopsy

**2- Plasma and urinary uroporphyrins**

3- Autoantibodies

4- Blood cultures

5- Patch testing

Q3544. A 22 year old female with some bowel habit change presents with a rash on her buttocks, elbows and knees. It is erythematous with some blistering and it is intensely itchy. A skin biopsy reveals sub-epidermal blister formation and immunofluorescence reveals IgA present within the papillae. What is the most likely diagnosis?

1- Bullous pemphigoid

**2- Dermatitis Herpertiformis**

3- Eczema

4- Herpes virus

5- Pemphigus vulgaris

Q3545. A 70 year old presents with a lesion on his cheek. The lesion has a raised, pearly border and there is telangiectasia on the surface of the lesion. What is the most likely diagnosis?

**1- Basal Cell Carcinoma**

2- Wart

3- Actinic Keratosis

4- Squamous Cell Carcinoma

5- Melanoma

Q3546. A 32 year old female presents to her GP with tremor, sweating, diarrhoea and irritability. She has noticed she has lost weight and is intolerant to heat. On examination there is evidence of tachycardia, brisk reflexes and goitre (small, diffuse and fir m) . In addition you notice exopthalmos, lid lag and evidence of clubbing of her fingers which are tender. What is the most likely diagnosis?

1- Hashimotos thyroiditis

**2- Graves disease**

3- Toxic multinodular goitre

4- De Quervains thyroiditis

5- Toxic adenoma

Q3547. ing to get up from a seat. He has noticed he is easily bruising and there is evidence of striae. He is found to be hypertensive and hypokalaemic. Which investigation should be performed initially?

**1- Low dose dexamethasone suppression test**

2- Urinary catecholamines

3- ACTH measurement

4- High dose dexamethasone

5- CT Head and abdomen

Q3548. A 65 year old male presents after noticing a lump in his neck. This is painless and not associated with any symptoms and has increased in size over the last few months. He is tall and slim with elongated fingers. He has a previous diagnosis of phaeochromocytoma. Which of the following investigation will most likely confirm the definitive diagnosis?

1- TSH

2- Free T3

3- Urinary catecholamines

**4- Calcitonin**

5- Antithyroid peroxidase

Q3549. Which of the following drugs is the most likely to cause gynaecomastia?

1- Omeprazole

**2- Spironolactone**

3- Citalopram

4- Thyroxine

5- Atenolol

Q3550. A 40 year old male presents with a decreased libido. His bloods reveal a low FSH, LH and testosterone level. His free T4 is 12, TSH - 3 and his calcium 2.20 mmol/L. His prolactin level was 400 U/L. Which of the following is the most likely diagnosis?

1- Non functioning Pituitary Adenoma

2- Craniopharyngioma

3- Sarcoidosis

4- Testicular germ cell tumour

**5- Langerhan's Cell Histiocytosis**

Q3551. A 32 year old female presents with a lump in her neck which is deemed to be of thyroid origin. It is giving her some problems with swallowing. Her thyroid function tests are normal and an ultrasound is arranged. A radionuclide uptake scan is organised and shows a cold nodule and her FNA is suspicious of follicular carcinoma. How would you manage this patient?

1- Thyroxine

2- Watch and Wait

3- Radioiodine therapy and oral replacement

4- Total Thyroidectomy

**5- Total thyroidectomy, radioiodine therapy and oral replacement**

Q3552. Which of the following can differentiate between cranial diabetes insipidus and nephrogenic diabetes insipidus?

1- Desmopressin does not lead to more concentrated urine

**2- Desmopressin leads to more concentrated urine**

3- Weight loss during water deprivation test

4- Dilute urine despite water deprivation

5- Increased plasma osmolality during water deprivation test

Q3553. A 28 year old pharmacist is brought to A and E after feeling very anxious and sweaty and appearing confused. Her BM was measured and was 2.8. A formal lab glucose revealed a glucose of 2.5, high insulin level and virtually undetectable Cpeptide. What is the most likely diagnosis?

1- Liver Disease

2- Insulinoma

3- Type 1 Diabetes Mellitus

**4- Factitious insulin induced hypoglycaemia**

5- Anorexia

Q3554. A patient who is ICU is found to have a slightly low TSH, low T3 and normal T4. She has no history of thyroid disease. What is the most likely cause?

1- Subclinical hyperthyroidism

**2- Euthyroid sick syndrome**

3- Hypothyroidism

4- Pituitary Hypothyroidism

5- Hyperparathyroidism

Q3555. A 25 year old patient presents with polyuria and polydipsia. A fasting glucose is 9mmol/l. She states that she has a strong family history of diabetes with her father, grandfather and 2 of her uncles have diabetes who all developed it at a young age. Her BMI is 23. She is commenced on gliclazide and gains very good control. What is the most likely diagnosis?

1- Type 2 Diabetes Mellitus

2- Gestational Diabetes

3- Type 1 Diabetes Mellitus

**4- Maturity onset diabetes of the young type 3**

5- Maturity onset diabetes of the young type 2

Q3556. A 28 year old male has been found to be hypertensive at 190/85 on several occasions and he has been referred and is investigated further. There is a drop of 60mmHg systolic blood pressure from the right brachial to the right femoral. What is the likeliest diagnosis?

**1- Coarctation of aorta**

2- Tetralogy of Fallot

3- HOCM

4- AS

5- Patent ductus arteriosus

Q3557. A 68 year old female attends A+E with frank bleeding per rectum. A Sigmoidoscopy reveals bleeding from an angiodysplastic lesion. Which valvular abnormality is most likely to be present?

**1- Aortic Stenosis**

2- Tricuspid Regurgitation

3- Mitral Regurgitation

4- Mitral Stenosis

5- Aortic Regurgitation

Q3558. A 29 year old female who was on methadone dies suddenly whilst out running. Which of the following is the most likely cause?

1- VF

**2- Prolonged QT**

3- Intracranial Haemorrhage

4- Methadone overdose

5- SVT

Q3559. An 20 year old student is brought to A and E following a collapse in an a night club. There was no suspicion of illicit drug use. He has had 3 collapse episodes previously. He had regained consciousness after a few minutes. There is nil of note on examination with BP and HR within normal parameters. However, an ECG shows a QT interval of 0.56. Which ion channel is likely to be defective and have caused these signs and symptoms?

1- Magnesium

2- Calcium

3- Chloride

**4- Potassium**

5- Sodium

Q3560. A 30 year old male presents to his GP due to shortness of breath and chest discomfort whilst exercising. On examination there is a double apical impulse and a harsh mid systolic murmur loudest between the apex and the left sternal border. His ECG shows LVH and widespread Q waves. You suspect HOCM, which of the following is associated with increased risk of sudden death?

1- Family history of sudden death

2- Asymmetrical septal hypertrophy

3- Loudness of murmur

**4- Degree of left ventricular hypertrophy**

5- Age

Q3561. An elderly man is on the ward due to a left sided pneumonia. He becomes acutely distressed and punches a nurse. His notes state that he drinks 4 pints of beer a day. On examination his temperature is 38.1 C, BP is 110/60 mmHg, pulse is 95/min and regular, there is consolidation at his left lung base, his white cell count is raised significantly and renal function is impaired. What has caused his symptoms?

1- Wernickes encephalopathy

2- Undiagnosed dementia

3- Delirium tremens

4- Korsakoffs psychosis

**5- Delirium secondary to infection**

Q3562. What treatment should be administered for an aggressive, potentially psychotic patient with no history of mental illness?

1- Diazepam

2- Quetiapine

3- Clozapine

4- Haloperidol

**5- Lorazepam**

Q3563. Which of the following is a feature of delirium and schizophrenia?

**1- Hallucinations**

2- Involuntary movements

3- Inappropriate emotional state

4- Altered sleep wake cycle

5- Ptosis

Q3564. A patient who has recently been commenced on ramipril for hypertension presents for his routine bloods. He is found to have a potassium of 5.7 mmol/L, his urea, creatinine and sodium are within the normal range and have not changed since his last set of bloods. His ECG is normal. He is otherwise well. How should this patient be treated?

1- Calcium Gluconate

2- Calcium resonium

**3- Stop Ramipril and recheck Us and Es in one week**

4- Insulin Dextrose

5- Salbutamol nebulisers

Q3565. Which of the following molecules in pulmonary surfactant is mainly responsible for reducing surface tension?

1- Cholesterol

2- Phosphatidylcholine

3- SP-A

4- DMPC

**5- DPPC**

Q3566. Which of the following is one of the main roles of p53?

**1- Apoptosis**

2- Inititiating protein synthesis

3- Angiogenesis

4- Initiating cell cycle

5- Mismatch Repair

Q3567. A patient complains that her left foot drags and she is often catching it on steps or kerbs. She has a high stepping gair and loss of dorsiflexion on examination. There is reduced sensation over the foot and shin. What is the likely cause?

1- L5 nerve lesion

2- Tibial nerve injury

**3- Common peroneal nerve injury**

4- Stroke

5- Femoral nerve injury

Q3568. An elderly lady presents with problems performing simple tasks such as buttoning blouses or holding the phone. She has wasting of the small muscles of the hand and partial clawing of the little and ring fingers. Which nerve is likely to be damaged?

1- Axillary nerve

**2- Ulnar nerve**

3- Radial nerve

4- Median nerve

5- C6

Q3569. If the inferior (recurren t) laryngeal nerve is accidentally divided, what would be the result?

1- All the laryngeal muscles are paralysed on the affected side

2- During laryngoscopy, the affected cord is seen to lie close to the midline

3- Only the cricothyroid muscle is paralysed

4- Nothing the superior branch can compensate.

**5- The larynx would be paralysed below the vocal cord on the divided side**

Q3570. Which area of the colon is most susceptible to mesenteric ischaemia?

1- Hepatic flexure

2- Sigmoid colon

**3- Splenic flexure**

4- Rectum

5- Caecum

Q3571. A 9 year old boy is brought to his GP. his mother has noticed him tripping up frequently. he states he has difficulty seeing in the dark. He is otherwise very well. A full neurological examination is performed and is normal. Fundoscopy is performed and reveals mid peripheral bone spicules. Which of the following is the most likely diagnosis?

**1- Retinitis Pigmentosa**

2- Alport's Syndrome

3- Glaucoma

4- Usher's Syndrome

5- Retinoblastoma

Q3572. Which of the following suggests a trochlea nerve (CNI V) palsy?

**1- Torsional diplopia**

2- Problem seeing things at a distance

3- Ear pain

4- Ptosis

5- Horizontal diplopia

Q3573. A 68 year old male with previous history of TIA presents with unilateral painless vision loss. The retina is pale and the macula appears as a cherry red spot. What is the most likely cause of the vision loss?

**1- Central retinal artery occlusion**

2- Vitreous haemorrhage

3- Retinal vein occlusion

4- Age related macular degeneration

5- Retinal detachment

Q3574. A young doctor finds that he is light headed every morning until he eats breakfast. Which of the following is abnormal in this case?

1- Pentose phosphate pathway

**2- Gluconeogenesis**

3- Glycolysis

4- Ketogenesis

5- Glycosylation

Q3575. A patient is thought to be suffering from refeeding syndrome. What metabolic abnormality is the most important to monitor for?

1- Hypokalaemia

2- Hyponatraemia

3- Hypomagnesaemia

**4- Hypophosphataemia**

5- Hyperkalaemia

Q3576. The repolarization of cardiac muscle action potential is predominantly due to which of the following?

1- Sodium/Potassium pump

2- L type Calcium current

3- Closure of potassium channels

4- Sodium current

**5- Potassium current**

Q3577. A 28 year old gentleman is commenced on ifosfamide for testicular cancer . Which other drug should be commenced and for what reason?

1- Amifostine to prevent mucositis

2- Allopurinol to prevent Tumour Lysis Syndrome

3- Nil required

4- Amifostine to prevent nephrotoxicity

**5- Mesna ifosfamide induced hemorrhagic cystitis**

Q3578. A patient is found to have a broad complex tachycardia. Which of the following is contraindicated?

1- Adenosine

2- Amiodarone

3- DC Cardioversion

**4- Verapamil**

5- Lidnocaine

Q3579. A 65 year old male who has a past medical history of STEMI, hypertension and osteoarthritis is found to have ARF. His CK is over 5000. Which of the following is the most likely cause?

1- Ibuprofen

**2- Simvastatin**

3- Ramipril

4- Atenolol

5- Furosemide

Q3580. Which of the following is most likely to lead to hypercalcaemia?

1- Furosemide

2- Amiloride

**3- Bendroflumethiazide**

4- Spironolactone

5- Ramipril

Q3581. What is the mechanism of action of sumatriptan?

1- Dopamine agonist

2- 5-HT1D receptor antagonist

3- Calcium channel blocker

**4- 5-HT1D receptor agonist**

5- Dopamine antagonist

Q3582. Which of the following is a side effect which would be most likely to occur with the progesterone only pill rather than the combined oral contraceptive pill?

**1- Irregular periods**

2- Breast tenderness

3- Migraine

4- Depression

5- DVT

Q3583. A young patient with Glucose-6-phosphate dehydrogenase deficiency is planning on travelling to Africa, however is concerned regarding malaria prophylaxis. What do you advise?

**1- Avoid primaquine**

2- Nil required

3- Avoid doxycycline

4- Avoid mefloquine

5- Use of only mosquito nets

Q3584. A 24 year old male has recently been commenced on an anticonvulsant. He has noticed a slight tremor since starting on the medication. What anticonvulsant has most likely been commenced?

1- Gabapentin

**2- Sodium Valproate**

3- Levetiracetam

4- Carbamazepine

5- Ethosuximide

Q3585. Which of the following drugs acts predominantly as a potassium channel blocker?

1- Atenolol

2- Digoxin

3- Verapamil

**4- Amiodarone**

5- Quinidine

Q3586. A 64 year old female has just be diagnosed with Temporal Arteritis. Her recent bloods show a raised WCC. She states she has been feeling well. Which of the following is the most likely cause?

1- CLL

**2- Steroid use**

3- UTI

4- Due to the Temporal Arteritis

5- Polymyalgia Rheumatica

Q3587. A specific HLA type is associated with ankylosing spondylitis. Which chromosome is this located on?

**1- Chromosome 6**

2- Chromosome 23

3- Chromosome 16

4- Chromosome 9

5- Chromosome 12

Q3588. Which is not a complication of Down syndrome?

1- Congenital heart disease

**2- Hyperthyroidism**

3- Acute lymphoblastic leukemia

4- Alzheimers disease

5- Strabismus

Q3589. A 45 year old female is admitted with cellulitus requiring IV antibiotics. She is commenced on IV benzylpenicillin and IV flucloxacillin. She is commenced on Diclofenac for pain. After 3 days she she develops pyrexia, arthralgia, maculopapular rash, haematuria and oliguria. Bloods reveal acute renal failure and eosinophilia. A renal biopsy reveals interstitial cellular infiltrate with eosinophils present and variable tubular necrosis. What is the most likely diagnosis?

**1- Penicillin induced acute tubulointerstitial nephritis**

2- Chronic tubulointerstitial nephritis

3- Glomerulonephritis

4- NSAID induced acute tubulointerstitial nephritis

5- Anaphylaxis

Q3590. A 61 year old female presents with haematuria. She has been on sulphasalazine for many years for rheumatoid arthritis and takes ramipril for hypertension. Her blood pressure is 140/82 and she has classical rheumatoid features on her hands. Her urine is positive for blood and protein, her haemoglobin is 11 and creatinine levels are slightly raised. What investigation should be performed next?

**1- Renal biopsy**

2- Cystoscopy

3- CT KUB

4- Renal ultrasound

5- Urine culture

Q3591. A 33 year old female who returned 2 months ago from a safari in Africa presents with nephrotic syndrome. Which of the following plasmodium which cause malaria is most likely to lead to the Nephrotic Syndrome?

1- Plasmodium Knowlesi

2- Plasmodium Falciparum

3- Plasmodium Ovale

4- Plasmodium Vivax

**5- Plasmodium Malariae**

Q3592. Which of the following is the most likely composition of a staghorn calculi?

1- Calcium Phosphate

2- Cystine

3- Calcium Oxalate

**4- Magnesium ammonium phosphate**

5- Uric Acid

Q3593. Positive Anti-Ro antibodies with no other autoantibodies present is indicative of what condition?

**1- SLE**

2- Dermatomyositis

3- Sjögrens syndrome

4- Polymyositis

5- Rheumatoid Arthritis

Q3594. Which of the following confirms anaphylaxis over angiooedema if there is any doubt of the diagnosis?

**1- Elevated Serum Mast Cell Tryptase**

2- Hypereosinophilia

3- Neutrophilia

4- Rash

5- Facial Oedema

Q3595. A 27 year old female gives birth to her second baby who is noted to be very bradycardic at 60. She has a history of Sjorgens syndrome. Which antibody could have caused the childs bradycardia?

1- Anti-LKM1

2- RF

**3- Anti-ro**

4- Anti-Jo

5- ANA

Q3596. A 56 year old with recently diagnoses COPD presents with shortness of breath and wheeze. Blood gases reveal a PO2 of 8.6 kPa, PCO2 of 6.8 kPa, Ph of 7.25 and a bicarbonate of 24. What do these gases indicate?

1- Respiratory alkalosis

2- Respiratory acidosis with metabolic compensation

3- Metabolic acidosis

**4- Acute respiratory acidosis**

5- Acute on chronic respiratory acidosis

Q3597. What would you expect to find on pulmonary function test in a patient with morbid obesity?

1- Reduced gas transfer

2- Increased total lung capacity

3- Reduced FEV1/FVC ratio

4- Reduced total lung capacity

**5- Reduced FVC when lying flat**

Q3598. Which of the following does not interact with theophylline levels?

1- Smoking

2- Carbamazepine

3- Alcohol

4- Clarithromycin

**5- Amoxicillin**

Q3599. What is the mechanism of action of salbutamol?

**1- Beta2 receptor agonist which increases cAMP levels and leads to muscle relaxation and bronchodilation**

2- Beta2 receptor antagonist which increases cAMP levels and leads to muscle relaxation and bronchodilation

3- Beta2 receptor agonist which decreases cAMP levels and leads to muscle relaxation and bronchodilation

4- Beta2 receptor agonist which increases cGMP levels and leads to muscle relaxation and bronchodilation

5- Beta2 receptor agonist which increases cAMP levels and leads to muscle contraction and bronchoconstriction

Q3600. A 60 year old male presents with shortness of breath on exertion and a productive cough. He has worked with granite and slate for many years. A CXR reveals multiple small nodules throughout the lungs and are predominant in the upper lobes. Given the most likely diagnosis, what is this patient at risk of developing?

1- Bronchial cancer

**2- Progressive massive fibrosis**

3- Mesothelioma

4- Cor pulmonale

5- Glomerulonephritis

Q3601. A 25 year old female has an acute asthma attack. She is tachycardic and is tachypnoeic with a respiratory rate of 35. On auscultation she is very wheezy but is beginning to tire. Her peak flow is bout one third of her normal. She is commenced on both salbutamol and ipratropium nebulisers and IV hydrocortisone however has not greatly improved. Her gases reveal a high normal CO2 level and low normal O2 level on a trauma mask. Which other treatment option is the most appropriate to be be tried whilst waiting for ITU to assess the patient?

1- BiPAP

2- IV Salbutamol

**3- IV Magnesium sulphate**

4- IV aminophylline

5- CPAP

Q3602. A patient who was previously a coal miner is found on chest xray to have numerous small round opacities with normal lung markings. What is the most likely diagnosis?

1- Progressive massive fibrosis

2- Simple pneumoconiosis category 3

**3- Simple pneumoconiosis category 2**

4- Simple pneumoconiosis category 1

5- Silicosis

Q3603. Which of the following is most useful in differentiating ARDS from cardiogenic pulmonary oedema?

1- No history of CCF

2- Bilateral Infiltrates

3- Refractory hypoxia

**4- Pulmonary catheter wedge pressure <19mmHg**

5- Acute onset

Q3604. Superinfection with which of the following may lead to an acute hepatitis in a patient with existing hepatitis B?

1- Hepatitis G

2- Hepatitis A

3- Hepatitis E

4- Hepatitis C

**5- Hepatitis D**

Q3605. A 33 year old gentleman who has recently immigrated from Brazil attends his GP. For some time he has noticed an enlarging white patch on his neck. On examination there is a large macular white lesion which is well demarcated on his neck which has reduced sensation and there is evidenced of a thickened auricular nerve. Which of the following is the most likely diagnosis?

1- Leishmaniasis

2- Vitiligo

3- Diabetes Mellitus

**4- Tuberculoid Leprosy**

5- Lepromatous Leprosy

Q3606. A 50 year old man presents with joint pain affecting his knee and wrist. He has been feeling generally unwell. On examination there is evidence of a target shaped rash on his shin and there is generalised lymphadenopathy. The patient is penicillin allergic. Given the most likely diagnosis which treatment should be commenced?

1- Clarithromycin

2- Cefotaxime

3- Amoxicillin

**4- Doxycycline**

5- Azithromycin

Q3607. A 27 year old male attends an STD clinic. He is asymptomatic however is found to have syphilis. Which of the following should be used for treatment?

1- Procaine penicillin

2- Cefotaxime

3- Azithromycin

4- Doxycycline

**5- Benzathine penicillin**

Q3608. A person is back packing around South East Asia and wishes malaria prophylaxis. She is very fair skinned and suffers from epilepsy. Which anti malarial would you recommend?

**1- Atovaquone and Proguanil**

2- Proguanil

3- Mefloquine

4- Doxycycline

5- Chloroquine

Q3609. In a patient who is aged over 50 or under 3 months of age, what is an appropriate addition to ceftriaxone for the empirical management of meningitis?

1- Rifampicin

**2- Amoxicillin 2g 6 hourly**

3- Amoxicillin 1g 8 hourly

4- Gentamicin

5- Vancomycin

Q3610. Rheumatoid factor is most commonly which immunoglobulin class?

1- IgG

2- IgE

3- IgD

**4- IgM**

5- IgA

Q3611. A 65 year old female presents with fatigue and muscle weakness. Bloods reveal a macrocytic anaemia, raised CK and Anti-thyroid peroxidase antibodies are positive. What is the most likely diagnosis?

**1- Hypothyroidism**

2- Cushing's Disease

3- Polymyositis

4- Vitamin B12 deficiency

5- Polymyalgia Rheumatica

Q3612. What is the most characteristic finding on Xray of a patient with ankylosing spondylitis?

1- Widened disc space

**2- Subchondral bony sclerosis at sacroiliac joints**

3- Scoliosis

4- Osteophytes

5- Narrowed disc space

Q3613. A 35 year old female who has recently started to train for a marathon presents with left hip pain. This is over the lateral side of her hip and radiates down her thigh and is worse when she lies on it at night. On examination there is tenderness over the greater trochanter and the pain reproduced by external rotation. What is the most likely diagnosis?

1- Osteoarthritis

2- Soft Tissue Injury

3- Avascular Necrosis

**4- Trochanteric Bursitis**

5- Impacted hip fracture

Q3614. A patient presents with acute pain and swelling of their right knee. They have been recently unwell. They are pyrexial and on examination the joint is warm, red, extremely tender and greatly reduced ROM due to pain. What investigation should be performed for the definitive diagnosis?

1- Right knee x-ray

**2- Aspiration of joint**

3- Inflammatory markers

4- Urate levels

5- Blood cultures

Q3615. Which of the following is a poor prognostic sign in Rheumatoid Arthritis?

1- Rheumatoid factor negative

2- Early morning stiffness

3- Age >60

**4- Early bony erosions**

5- Juxta articular osteopenia

Q3616. Which of the following is least useful in monitoring disease activity in SLE?

**1- ANA**

2- Symptomology

3- Anti dsDNA

4- Complement levels

5- ESR

Q3617. A 62 year old presents with pain and swelling of her carpal metacarpal and distal interphalangeal joints. X-rays are performed and shows erosions of a gull's wing pattern. There is no osteophytes or Juxta-articular osteopaenia. Although ESR is slightly elevated, rheumatoid factor and all other autoantibodies are negative. What is the most likely diagnosis?

1- Pseudogout

2- Rheumatoid arthritis

3- SLE

4- Psoriatic arthritis

**5- Erosive osteoarthritis**

Q3618. A 55 year old female has recently been commenced on carbamazepine and now presents with generalised joint pains. There is not much to find on examination however she has a positive anti-SS DNA, positive anti-Ro and a reduced C4. What is the most likely diagnosis?

1- Osteoarthritis

2- Pseudogout

**3- Drug induced lupus**

4- SLE

5- Reactive Arthritis

Q3619. of rheumatoid arthritis?

1- Prostaglandins

**2- TNF-alpha**

3- IL-2

4- IL-10

5- G-CSF

Q3620. A 36 year old female presents with joint pain and swelling in the small joints of both hands. Bloods reveal an elevated ESR and Anti-CCP is positive. Which of the following is the most likely diagnosis?

1- Reiter's Syndrome

2- Reactive Athritis

**3- Rheumatoid Arthritis**

4- Osteoarthritis

5- SLE

Q3621. What is meant by intention to treat in randomised controlled trials?

1- Analysis of data from subjects randomised to the control group

2- Analysis of data from subjects randomised to the treatment group

**3- Analysis of data from all randomised subjects**

4- Analysis from data from randomised subjects remaining at end

5- None of the options

Q3622. Which of the following provides the best evidence?

1- Cohort Study

**2- Meta-analysis**

3- Case-Control Trial

4- Randomised Control Trial

5- Case study

Q3623. A group of 100 subjects ages are normally distributed with a mean of 41 years and a standard deviation of 4 years. Select the true statement

1- At least 5 subjects will be older than 49

**2- 16 subjects will be below 37 years of age**

3- 50 of the subjects will be between 39 and 43 years of age

4- 75 members of the study will be aged 37 and 45

5- 50% of the cohort will be between the age 37 and 45

Q3624. which shows failure of relaxation of anal sphincter when a rectal balloon is inflated. What is the most likely diagnosis?

1- Volvulus

2- Psychological

**3- Hirschprung's Disease**

4- Intussuception

5- Constipation

Q3625. A 60 year old gentleman presents to his GP with tiredness and increased shortness of breath. Bloods reveal a microcytic hypochromic anaemia and he is subsequently found to have iron deficiency anaemia. There is no evidence of any GI symptoms. What investigation s most appropriate to organise in this case?

1- CT Chest Abdomen and Pelvis

2- Flexible sigmoidoscopy

3- Upper GI endoscopy

4- Recheck bloods in three months time after iron supplementation

**5- Colonoscopy**

Q3626. The C282Y mutation on chromosome 6 is associated with which disease?

1- HNPCC

2- Gilberts syndrome

**3- Haemochromatosis**

4- FAP

5- Haemophilia A

Q3627. An 18 year old notices that whenever he has a cold or flu he becomes jaundice. The urine is not dark. What is the most likely diagnosis?

1- Gallstone

2- Haemolytic anaemia

3- Haemochromatosis

**4- Gilberts syndrome**

5- Dubin Johnson syndrome

Q3628. Lactulose aids in reducing hepatic encephalopathy. What is the mechanism for this?

1- Asks as a barrier preventing ammonia absorption

2- Increased motility

**3- Neutralisation and less absorption of ammonia**

4- Alkalinises the faeces

5- Osmotic laxative

Q3629. A 60 year old gentleman has just complete a course of coamoxiclav for a lower respiratory tract infection. He present very unwell with severe diarrhoea which is green in colour and is foul smelling. There is no blood or mucous. Samples are sent and a flexible sigmoidoscopy is performed and reveals a colitis. There is evidence of dilatation of his large bowel on abdominal x ray. How should you manage this patient?

1- IV fluids and oral ciprofloxacin

2- IV fluids

3- IV fluids and IV vancomycin

4- Await stool sample results before commencing treatment

**5- IV fluids and oral metronidazole**

Q3630. A 75 year old gentleman with acid reflux symptoms, bloating and weight loss. He has had previous surgery for a perforated duodenal ulcer many years ago. He has a medical history of hypertension and is currently on ramipril. On examination there is nil of note except a mid line laparotomy scar. Bloods are performed and reveal a macrocytic anaemia. What is the next most appropriate investigation?

1- CT CAP

2- Upper GI endoscopy

**3- Hydrogen breath test**

4- Oesophageal manometry and pH studies

5- Colonoscopy

Q3631. A 2 year old child with Down's Syndrome is brought to A+E with constipation. He has not moved his bowels for 2 weeks. He was noted to have delayed passage of meconium at birth. On examination there is evidence of abdominal distension. What is the most likely cause of his constipation?

1- Hypothyroidism

2- Cystic Fibrosis

3- Intussusception

**4- Hirschsprung's Disease**

5- Functional

Q3632. A 70 year old male with long standing diabetes presents with severe pain in his left thigh. On examination there is marked wasting of his quadriceps on the left side and loss of knee reflex. What is the most likely diagnosis?

1- Peripheral neuropathy

2- Autonomic neuropathy

3- Mononeuritis Mulitplex

**4- Diabetic amyotrophy**

5- Acute painful neuropathy

Q3633. A 24 year old female has a history of migraines. On a visit to her optician who notes that one of her pupils is larger than the other and does not react to light. There is no abnormal findings in eye movement, acuity or fundoscopy. Which of the following explains her pupillary findings?

1- Brain Tumour

**2- Holmes Adie pupil**

3- Third cranial nerve palsy

4- Horners Syndrome

5- Argyll Robertson pupil

Q3634. A 55 year old male presents with left sided facial drop and left arm weakness. A CT Head confirms a right sided infarct. His blood pressure is 150/90 mmHg. You note that he is very tall and slim. He has very long arms and fingers. He is normally fit and well and is a non smoker. What is the most likely cause of his stroke?

1- Atherosclerotic Disease

**2- Emboli**

3- Hypertension

4- Intracranial Aneurysm rupture

5- Intracranial haemorrhage

Q3635. A 24 year old female presents witnessed by a family member where she suddenly becomes unaware of her surroundings, is unresponsive and performs unusual lip smacking. She states she does not remember these attacks however remembers shortly before it a feeling of deja vu. What is the most likely diagnosis?

1- Myoclonic seizure

2- Simple partial seizure

**3- Complex partial seizure**

4- Absence seizure

5- Generalised tonic clonic seizure

Q3636. A 78 year old female suffers from a stroke. She has now developed sudden, violent swinging of her right arm. What is the most likely cause?

1- Seizure

2- Athetosis

**3- Hemiballismus**

4- Tardive dyskinesia

5- Chorea

Q3637. A 72 year old female with hypertension and ischaemic heart disease presents with dysarthria and clumsiness of her left hand. On examination she has right sided facial weakness, clearly dysarthric and mild left hand weakness and clumsiness. What area of the brain is most likely affected?

1- Posterior limb internal capsule

2- Ventral pons

3- Anterior limb internal capsule

4- Thalamus

**5- Dorsal pons**

Q3638. A 16 year old boy is brought to the first seizure clinic. He has episodes, most often in the morning, where he goes stiff, collapses to the ground and jerks for a couple of minutes before resolution and he takes about 15 minutes to recover. He occasionally jerks. There is nil of note on examination. Given the likely diagnosis what drug treatment would you commence?

1- Gabapentin

**2- Sodium valproate**

3- Phenytoin

4- Carbamazepine

5- Levetiracetam

Q3639. A 65 year old female attends her GP due to "restless legs". At night or when she is sitting at rest she has the urge to move her legs which is causing extreme irritation. She is otherwise fit and well. Which of the following is useful for the management?

1- Gabapentin

**2- Ropinirole**

3- Carbamazepine

4- Pergolide

5- Cabergoline

Q3640. A 72 year old man presents to A and E with a funny turn. he has a history of hypertension. On examination he is found to have grade 3/5 and reduced sensation in his right arm and leg. He is also found to have reduced sensation on the left hand side of his face and there is evidence of a Horners Syndrome. He is ataxic. Where is the lesion likely to be?

1- Internal Capsule

2- Pons

3- Cerebellum

4- Medulla

**5- Brain stem**

Q3641. A 46 year old woman is referred with dysphagia and dysarthria. On examination she is hypertonic in all limbs and she has a brisk gag reflex but there is no evidence of sensory change. Her hands appear wasted. What is the likely diagnosis?

1- Multiple sclerosis

2- Cervical Disc Prolapse

3- Adrenoleucodystrophy

**4- Motor neurone disease**

5- Space Occupying Lesion

Q3642. A 68 year old female presents with left shoulder blade and axillary pain. This radiates down her arm to her fingers worst in the index and middle finger. She has a history of chronic neck pain. On examination she has reduced, painful neck movements. There is 4/5 power in wrist extension and reduced sensation to pain in the middle and index fingers. There of loss triceps reflex on the left. At what level is her cervical disc prolapse likely to be?

1- C8, T.1

2- C5,6

**3- C6,7**

4- C4,5

5- C7,8

Q3643. A 24 year old male is referred by his GP due to one weeks history of drooling, difficulty closing his eyes and inability to smile. On examination he is found to have weak movement in all facial expression muscles however sensation is normal and there is nil else of note. He is fit and well otherwise. Which of the following is the most likely diagnosis?

1- Myasthenia gravis

**2- Bilateral Bells palsy**

3- Stroke

4- MND

5- Sarcoidosis

Q3644. A 60 year old presents with a burning feeling the anterolateral aspect of her left thigh. he has a PMH of Type 2 Diabetes Mellitus, Stroke and Atrial Fibrillation. On examination her left leg is hypertonic and she is hyperreflexic but power is 5/5. She has a reduced pain sensation over the anterolateral aspect of her right thigh. Which of the following is the most likely diagnosis?

1- Embolus to spinal artery

**2- Meralgia Paraesthetica**

3- Disc Prolapse

4- Multiple Sclerosis

5- Diabetic femoral amyotrophy

Q3645. Which protein is abnormal in Marfans syndrome?

1- Collagen IV

2- Collagen III

3- Dystrophin

4- Collagen I

**5- Fibrillin**

Q3646. Mutation of which of the following genes has been linked to a hereditary condition which results in increased susceptibility to cancer with many different types of cancer occurring in a family at a young age and more than one cancer occurring in one person?

1- Mismatch repair genes

**2- p53**

3- Nil

4- BRCA1

5- BRCA2

Q3647. Which tumour marker and disease pair is correct?

1- Sarcoidosis and Vimentin

**2- Ovarian cancer and CA 125**

3- Pancreatic cancer and CarcinoEmbryonic Antigen

4- Lung cancer and AFP

5- Pancreatic cancer and CA 20 2

Q3648. Which drug, in addition to his metformin and gliclazide, should be given to a patient with type 2 Diabetes Mellitus with a high urinary albumin excretion?

1- Bisoprolol

2- Losartan

**3- Ramipril**

4- Insulin

5- Aspirin

Q3649. . She is hyponatraemic and her glucose is within the normal range. What is the most likely diagnosis?

1- Diabetic ketoacidosis

2- Stroke

**3- Myxoedema coma**

4- Thyrotoxic storm

5- Addisons disease

Q3650. A 28 year old male is diagnosed with maturity onset diabetes of the young type 2. The mutation of which gene is responsible?

**1- Glucokinase**

2- HNF 1-beta

3- IPF-1

4- HNF 4-alpha

5- HNF 1-alpha

Q3651. A 17 year old female attends with primary amenorrhoea. She has severe acne and a deep voice and has an enlarged clitoris. Her male cousin had precocious puberty. Which of the following should be performed to confirm the diagnosis?

1- Pelvic Ultrasound

2- Testoterone levels

3- Steroid hormone binding globulin

**4- Serum 17-hydroxyprogesterone**

5- FSH and LH

Q3652. A patient presents with weight loss, polyuria and polydipsia. He is found to have a normochromic, normocytic anaemia and high fasting glucose. He is also complaining of diarrhoea. On examination there is evidence of stomatitis and erythematous rash in his groins and and on his legs. There is areas of hyperpigmentation. He states the lesion began a couple of weeks ago beginning as flat rings then blistered and were itchy and painful. Which investigation will be most useful for the diagnosis?

1- Glucose tolerance test

2- Haematinics

3- Somatostatin levels

4- C peptide levels

**5- Glucagon levels**

Q3653. A 19 year old female presents with irregular periods to her GP. You notice she is overweight and has acne. She admits that she has to regularly bleach her upper lip hair and has a line of hair from her umbilicus to her pubic hair which she is embarassed about. Her bloods reveal an elevated LH:FSH ratio and testosterone is at the high end of normal and sex hormone binding globulin is low. Her fasting glucose is 6.2. Which of the following would be most useful in the treatment?

1- Combined oral contraceptive

2- Orlistat

**3- Metformin**

4- Clomiphene

5- Progesterone only pill

Q3654. A 65 year old was diagnosed with type 2 diabetes mellitus the previous year. He has ongoing problems with biliary colic. He has recently lost weight and is complaining of loose malodorous stools up to 5 times a day. He is suffering from nausea and abdominal pain. He is found to be anaemic. What is the most likely diagnosis?

1- Gastrinoma

**2- Somatostatinoma**

3- Insulinoma

4- Glucagonoma

5- VIPoma

Q3655. A 28 year old female presents with irregular periods. She is overweight and has problems with excessive hair and acne. You notice she appears to have broad shoulders and a deep voice. An ultrasound reveals nests of cells throughout the ovarian stroma. Bloods reveal elevated testosterone levels. What is the most likely diagnosis?

1- Cushings syndrome

2- Congenital adrenal hyperplasia

3- Polycystic ovarian syndrome

**4- Ovarian hyperthecosis**

5- Androgen producing tumour

# Chapter 23 2013 January

Q3656. A 26 year old patient is found incidentally to have a harsh pansystolic murmur at the lower left sternal edge. He is asymptomatic and both CXR and ECG are normal. What is the most likely diagnosis?

1- Aortic atenosis

2- Atrial septal defect

3- Patent ductus arteriosus

4- Mitral regurgitation

**5- Ventricular septal defect**

Q3657. An 19 year old who has been generally unwell with a sore throat presents with chest pain worse on inspiration and relieved on sitting forwards. An ECG shows saddle ST elevation in numerous leads and there is a rub on auscultation. What is the most likely diagnosis?

1- Cardiac Tamponade

2- EBV

**3- Pericarditis**

4- Myocarditis

5- STEMI

Q3658. Following a STEMI, which drug is not proven to have a mortality benefit?

1- Atorvastatin

2- Bisoprolol

3- Ramipril

**4- Isosorbide mononitrate**

5- Tirofiban

Q3659. A 65 year old female present with intermittent diarrhoea and abdominal pain. She has also noticed her face flushing at times. She has now become increasingly breathless and fatigued. On examination there is evidence of peripheral oedema and hepatomegaly. There is also evidence of a pansystolic murmur loudest at the LLSE. What is the most likely diagnosis?

1- Aortic Regurgitation

2- Aortic Stenosis

3- Pulmonary stenosis

4- Mitral regurgitation

**5- Tricuspid regurgitation**

Q3660. A man is brought to the GP by his wife. Over the previous 4 months he has been aggressive, rude to strangers and has noticeable memory loss. He is not on any medication, does not smoke or drink and takes no recreational drugs. On examination his BP is 145/9 mmHg, bloods are normal including thyroid function, and there is nothing else to note. An MRI shows increased T2 signal in the frontal lobe white matter and frontal lobe atrophy. A PET scan demonstrates hypometabolism in the front and temporal areas. What is the most likely diagnosis?

1- Alzheimers disease

2- Huntington disease

**3- Picks disease**

4- Lewy Body demetnia

5- Stroke

Q3661. Which of the following has the highest suicide risk for patients with major depression?

1- At the start of CBT

2- Immediately after ECT

3- When lowering the dose of SSRI

**4- The first few weeks of SSRI treatment**

5- When they identify the source of the depression

Q3662. A 71 year old lady was attacked 9 months ago. Ever since she describes flash backs and nightmares about the event. She avoids going out unless she has to and feels anxious a lot of the time. What is the likely diagnosis?

1- Acutre stress disorder

2- Agoraphobia

3- Generalised anxiety disorder

4- Depression

**5- Post traumatic stress disorder**

Q3663. Which area of the colon is most susceptible to mesenteric ischaemia?

1- Caecum

2- Hepatic flexure

3- Sigmoid colon

4- Rectum

**5- Splenic flexure**

Q3664. A 55 year old female who is on methotrexate for rheumatoid arthritis presents to her GP with a painful red right eye. This came on suddenly and her eye is mildly painful and watering. Her vision has not been affected. On examination there is evidence of redness in the right upper quadrant of the right eye and this is tender. Her pupil is normal as is her conjunctivae. Visual acuity is unchanged and eye movements are normal. Which of the following is the most likely diagnosis?

1- Acute Glaucoma

2- Conjunctivitis

**3- Episcleritis**

4- Corneal Abrasion

5- Scleritis

Q3665. What compensatory mechanism occurs to counteract dehydration?

**1- Increased aquaporin 2 in collecting ducts**

2- Increased renal blood flow

3- Reduced ADH levels

4- Increased sodium excretion

5- Reduced cortisol levels

Q3666. Before commencing azathioprine therapy, which of the following should be measured?

1- 6 mercaptopurine

2- Full blood count

3- Renal function

4- Liver function

**5- Thiopurine S methyltransferase**

Q3667. A 53 year old female who has bipolar depression presents with nausea, vomiting, diarrhoea and abdominal cramps. She also appears tremulous and confused. A lithium level is measured and reveals a level of 2.5 mmol/l. She is also found to be in acute renal failure. Which of the following is the most appropriate management?

1- Activated Charcoal

2- Gastric Lavage

3- Peritoneal Dialysis

**4- Haemodialysis**

5- Sodium Bicarbonate

Q3668. A young patient with Glucose-6-phosphate dehydrogenase deficiency is planning on travelling to Africa, however is concerned regarding malaria prophylaxis. What do you advise?

1- Avoid doxycycline

2- Avoid mefloquine

3- Nil required

**4- Avoid primaquine**

5- Use of only mosquito nets

Q3669. A patient with von Willebrands disease is requiring surgery. How should you manage this patient?

1- Cryoprecipitate

**2- DDAVP and tranexamic acid**

3- Platelet transfusion

4- Fresh frozen plasma

5- Steroids

Q3670. A 24 year old male with sickle cell anaemia presents with severe pleuritic chest pain. He is short of breath and has a cough. A CXR reveals increased multilobular opacities. What is the most likely diagnosis?

**1- Acute Chest Syndrome**

2- Myocardial Ischaemia

3- Pneumonia

4- Myocarditis

5- Pulmonary Embolus

Q3671. A 48 year old male of African descent presents with a long history of a microcytic anaemia which has not responded to iron supplementation. The patient is otherwise well and has no bleeding history. His bloods reveal a microcytic anaemia, however haematinics are normal. A blood film reveals hypochromia and target cells. What is the most likely diagnosis?

**1- Alpha thalassaemia minor**

2- Beta thalassaemia

3- Iron Deficiency Anaemia

4- Haemolytic Anaemia

5- Sickle Cell Trait

Q3672. What organism is most likely to lead to an aplastic crisis in Sickle cell disease?

1- Adenovirus

2- Epstein Barr virus

**3- Parvovirus B19**

4- Hepatitis B

5- Streptococcus pneumoniae

Q3673. A 64 year old male presents with general malaise, weight loss and night sweats. He also complains of abdominal discomfort in the left upper quadrant. On examination there is evidence of massive splenomegaly. Bloods revealed a low haemoglobin and neutropenia. A blood film reveals leukoerythroblastosis with tear drop poikilocytosis and megakaryocyte fragments. What is the most likely diagnosis?

1- Acute lymphocytic leukaemia

2- Chronic myeloid leukaemia

**3- Myelofibrosis**

4- Myelodysplasia

5- Non Hodgkins lymphoma

Q3674. In sickle cell anaemia, which of the following organisms is not commonly associated with infection in these patients?

1- Chlamydia trachomatis

2- Haemophilus influenzae

**3- Staphylococcus aureus**

4- Neisseria meningitis

5- Streptococcus pneumoniae

Q3675. A 31 year old female presents with constipation and sore knees. History reveals that the patient has been more tired than usual and that 9 years she had surgical resection of a pituitary prolactinoma. Her mother and brother have had kidney stones and her grandfather had a tumour removed from his pancreas. What is the underlying condition?

1- Familial hypocalciuric hypercalcaemia

**2- Multiple endocrine neoplasia type 1**

3- Prolactinoma

4- Multiple endocrine neoplasia type 2

5- Von Hippel Lindaue disease

Q3676. A patient presents with an excruciating headache and nausea. She is being treated for hypertension and she has a family history of kidney problems. What is the likely cause?

**1- Austosomal dominant polycystic kidney disease**

2- Hypercholesterolaemia

3- Turners syndrome

4- Renal oncocytoma

5- Von Hippel Lindau disease

Q3677. A 73 year old gentleman presents to his GP with significant peripheral oedema. He has a past medical history of well controlled type 2 diabetes mellitus. He is also complaining of fatigue. Over the last few months he has been taking diclofenac for his osteoarthritis. A urinalysis leaves protein 3+ and bloods reveal a urea of 12.1 and a creatinine of 210. These had been normal 3 months ago. Which of the following would you expect to find on renal biopsy?

1- Diabetic Nephropathy

2- Membranous Nephropathy

3- Nil

4- Minimal Change Disease

**5- Tubulointerstitial Nephritis**

Q3678. A 37 year old male has a history of rhinorrhoea , recurrent sinusitis, joints pains and cough with occasional haemoptysis. On dipstick of his urine there is evidence of proteinuria and haematuria. Bloods reveal acute renal failure and autoantibodies reveal a positive cANCA. What is the most likely diagnosis?

1- Churg Strauss syndrome

2- Haemolytic Uraemic syndrome

3- Microscopic polyangitis

4- IgA nephropathy

**5- Wegeners Granulomatosis**

Q3679. Which of the following is not a cause of membranous nephropathy?

**1- Alports syndrome**

2- Diabetes

3- Lymphoma

4- Gold

5- Systemic lupus erythematous

Q3680. A 45 year old patient has been recently diagnosed with Hodgkin's Lymphoma. He presents with bilateral swelling of his legs up to his knees. This is slightly worse on the left than the right. Bloods reveal a slightly raised creatinine, hypoalbuminaemia and a cholesterol of 10.0 mmol/l. A 24 hour urinary protein reveals a proteinuria of 5.0 g. An ultrasound revealed a left DVT and normal kidneys. The peripheral oedema and proteinuria responds to steroids. A renal ultrasound is normal. Which of the following is the most likely diagnosis?

1- Focal segmental glomerulosclerosis

2- IgA nephropathy

**3- Minimal Change Disease**

4- Membranous Nephropathy

5- Thrombophilia

Q3681. A 14 year old boy is admitted following an epileptic seizure. This is his first seizure and on examination you note learning difficulties, a bumpy rash on his nose and cheeks and a blood pressure of 135/82 mmHg. His blood results are normal but a urine dipstick reveals trace levels of blood and an ultrasound shows cysts in both kidneys. What is the diagnosis?

1- Glioblastoma multiforme

2- MEN1

3- Polycystic kidney disease

4- Neurofibromatosis

**5- Tuberous sclerosis**

Q3682. What complement deficiency is associated with Neisseria infection?

1- C1

2- C2

3- C4

4- C3

**5- C5**

Q3683. A 45 year old gentleman who has COPD presents with shortness of breath and pleuritic chest pain. He has a cough and has had several episodes of haemoptysis. He has recently returned from visiting his family in Australia. On examination he is pyrexial, tachypnoeic with saturations of 90% and there is widespread wheeze throughout his chest. Bloods reveal an elevated CRP and WCC. A CXR reveals hyperinflation of the lungs and an ECG sinus tachycardia. Which investigation should be organised to confirm the diagnosis?

1- ABGs

2- CT Chest

3- D-dimers

**4- CT Pulmonary Angiogram**

5- Ventilation perfusion scan

Q3684. A 37 year old presents with fatigue, weight loss and nausea. He describes episodes of haemoptysis and has noticed his urine being very dark. On examination he has bibasal crepitations. His bloods reveal an iron deficiency anaemia and renal impairment and urinalysis reveals proteinuria and microscopic haematuria. Which autoantibody would you expect to find?

1- Anti dsDNA

**2- Anti GBM**

3- pANCA

4- cANCA

5- Rheumatoid factor

Q3685. A 52 year old gentleman presents with unwell with a cough productive of green sputum with occasional blood flecks. He is also complaining of shortness of breath and has a cold sore. On examination he is pyrexial, tachypneoic, tachycardic and there is left basal coarse crackles. What is the most diagnosis?

1- Pneumonia due to staphylococcus aureus

**2- Pneumonia due to streptococcus pneumoniae**

3- Pneumonia secondary to H. Influenzae Klebsiella pneumoniae

4- Pneumonia secondary to coxiella burnetii Mycoplasma pneumoniae

5- Viral Pneumonia

Q3686. Which of the following is not true regarding alpha 1 antitrypsin deficiency?

1- Alpha 1 antitrypsin is a glycoprotein

2- Liver is commonly involved

3- PiZZ genotype produces severe disease

**4- Most commonly recessively inherited**

5- Protects from neutrophil elastase

Q3687. A patient with Goodpastures syndrome is found to have an elevated diffusion capacity. What is the likely cause of this elevation?

1- Asthma

2- COPD

**3- Pulmonary Haemorrhage**

4- Pulmonary embolus

5- Smoking

Q3688. A 54 year old male presents with increased shortness of breath and cough. He is a smoker of 40 per day and has previously been treated for Hodgkins Lymphoma. On examination there is bibasal fine inspiratory crackles. Spirometry reveals a normal FEV1/FVC ratio and reduced gas transfer. What is the most likely diagnosis?

1- Asthma

2- Bronchial carcinoma

**3- Pulmonary fibrosis secondary to Bleomycin**

4- COPD

5- Pulmonary fibrosis secondary to Hodgkins Lymphoma

Q3689. Which of the following advice would you give to a young patient who had suffered a spontaneous pneumothorax?

**1- Avoid scuba diving for life**

2- Avoid sky diving for one year

3- Not to fly for one year

4- Not allowed to scuba dive for 2 years

5- Not to play sports

Q3690. A 65 year old male with COPD presents with an acute exacerbation. He is commenced on salbutamol and ipratropium nebulisers and given IV hydrocortisone. However blood gases reveal a pO2 of 8.0 kPa and a pCO2 of 10.0 kPa and a pH of 7.2. What is the next appropriate step in management?

**1- BiPAP**

2- CPAP

3- IV doxapram

4- Intubation for ventilation

5- Reduce oxygen therapy

Q3691. A 37 year old presents with fatigue, weight loss and nausea. He describes episodes of haemoptysis and has noticed his urine being very dark. On examination he has bibasal crepitations. His bloods reveal an iron deficiency anaemia and renal impairment and urinalysis reveals proteinuria and microscopic haematuria. What is the most likely diagnosis?

1- Churg Strauss syndrome

2- Glomerulonephritis

3- SLE

**4- Goodpastures syndrome**

5- Wegeners Granulomatosis

Q3692. A 28 year old gentleman has a long history of rhinitis and asthma. However he now presents with haemoptysis. He has also noticed a rash and severe pain which he states feels like sciatica. He is feeling generally unwell with fatigue, myalgia and weight loss. On examination he is hypertensive and there is a purpuric rash. Bloods reveal acute renal failure and elevated inflammatory markers and eosinophil count. Given the most likely diagnosis, which antibody is likely to be present?

1- Anti dsDNA

2- Anti Ro

**3- pANCA**

4- cANCA

5- Rheumatoid factor

Q3693. A 28 year old gentleman has a long history of rhinitis and asthma. However he now presents with haemoptysis. He has also noticed a rash and severe pain which he states feels like sciatica. He is feeling generally unwell with fatigue, myalgia and weight loss. On examination he is hypertensive and there is a purpuric rash. Bloods reveal acute renal failure and elevated inflammatory markers and eosinophil count. What is the most likely diagnosis?

**1- Churg Strauss Syndrome**

2- Malignancy

3- SLE

4- Polyarteritis Nodosa

5- Wegeners Granulomatosis

Q3694. A 70 year old patient who was previously a coal miner presents with significant dyspnoea and a cough which is sometimes productive of black sputum. On CXR there is large round fibrotic masses in the upper lobes. What is the most likely diagnosis?

**1- Progressive massive fibrosis**

2- Silicosis

3- Simple pneumoconiosis category 2

4- Simple pneumoconiosis category 1

5- Simple pneumoconiosis category 3

Q3695. A 19 year old male presents with dysuria and a mucopurulent discharge from his urethra. The causative agent is a gram negative intracellular diplococci. What is the most likely diagnosis?

1- Chlamydia

**2- Gonorrhoea**

3- Herpes simplex virus

4- Herpes Simplex

5- Human papilloma virus

Q3696. An 18 year old male who has just started university presents with a sore throat, malaise and fever. On examination there is tonsillar enlargement which are exudative and petechiae on his palate. There is evidence of cervical lymphadenopathy and hepatomegaly. Bloods reveal an elevated ESR and deranged LFTs. What is the most likely diagnosis?

1- Group A Streptococcal Pharyngitis

2- HIV Seroconversion

3- Viral Hepatitis

**4- Infectious Mononucleosis**

5- Viral Pharyngitis

Q3697. A 36 year old gentleman presents with fatigue, weight loss, abdominal discomfort, nausea and change in bowel habit. On examination there is a right iliac fossa mass. A colonoscopy is organised and a biopsy taken which reveals gram positive filamentous rods and sulphur granules. What is the most likely diagnosis?

**1- Actinomycosis**

2- Appendicitis

3- Crohn's Disease

4- Colorectal Cancer

5- Giardiasis

Q3698. A 22 year old student has just returned from south America. He presents with pyrexia, jaundice, abdominal pain and vomiting. He has noticed bleeding from his nose and gums. This was preceded by a flu like illness with headache, fever and myalgia especially back pain. He thought he was recovering and then the other symptoms began. What is the most likely diagnosis?

1- Dengue Fever

2- Ebola Virus

3- Typhoid Fever

4- Malaria

**5- Yellow Fever**

Q3699. In all non falciparum malaria what is the most appropriate initial treatment of choice?

**1- Chloroquine**

2- Doxycycline

3- Mefloquine

4- Malarone

5- Quinine

Q3700. A 55 year old male has been admitted to ITU with severe sepsis. He had required ventilation and multiple antibiotics due to resistance. He has recovered and has been transferred to the ward after 2 weeks in ITU. Unfortunately he becomes unwell and feverish. He has a cough productive of green sputum. A CXR confirms pneumonia. You are concerned about possible MRSA pneumonia. Which of the following is an appropriate antibiotic regime?

1- Amoxicillin and Metronidazole

2- Ceftriaxone

**3- Meropenem and gentamicin and vancomycin**

4- Co-amoxiclav and clarithromycin

5- Vancomycin

Q3701. Which of the following implies previous immunisation to hepatitis B?

1- anti Hbc

2- Anti HbcAg

3- HbeAg

**4- anti Hbs**

5- HbsAg

Q3702. A 56 year old male with type 2 diabetes mellitus presents with severe pain in his shin after cutting it in the garden. On examination there is an area of erythema and swelling which is hot and tender to touch. It is extremely painful and tender even out with the erythematous area. He feels unwell and is tachycardic. Given the most likely diagnosis, what initial antibiotic regime is appropriate?

1- IV benzylpenicillin

**2- IV benzylpenicillin + clindamycin + gentamicin**

3- IV flucloxacillin

4- IV benzylpenicillin + IV flucloxacillin

5- IV meropenem

Q3703. A 25 year old gentleman has recently returned from travelling around Asia. He presents to his GP as he is feeling unwell with a headache, cough and myalgia. He has also noticed a fever which comes and goes every couple of days. On examination there is evidence of hepatosplenomegaly, fever and jaundice. What is the most likely diagnosis?

1- Dengue fever

2- Malaria secondary to plasmodium falciparum

**3- Malaria secondary to plasmodium ovale**

4- Malaria secondary to plasmodium malariae

5- Typhoid

Q3704. An 22 year old returning from Africa on holiday presents to his GP. Whilst on holiday he had developed an itchy rash for several days. He now feels unwell with myalgia, cough, headache, bloody diarrhoea and an itchy rash. On examination there is hepatosplenomegaly and evidence of urticaria. Given the most likely diagnosis, what treatment is appropriate?

1- Chloroquine

2- Nil

**3- Praziquantel**

4- Oxamniquine

5- Quinine

Q3705. A 26 year old patient is brought to A and E very unwell with headache, neck stiffness, photophobia and fever. A lumbar puncture is performed and reveals a glucose of less than half of serum, a protein of 1.2 g/L and predominantly polymorphs. What is the most likely diagnosis?

**1- Bacterial meningitis**

2- Migraine

3- Tuberculosis meningitis

4- Subarachnoid haemorrhage

5- Viral meningitis

Q3706. A 23 year old female presents with a discoid rash, photosensitivity and painful joints. She has also noticed an increased frequency of oral ulcers. There is also evidence of microscopic haematuria and proteinuria. What antibody is specific to the diagnosis?

**1- Anti dsDNA antibody**

2- Anti smooth muscle antibody

3- Antinuclear antibody

4- Anti-centromere antibody

5- Rheumatoid factor

Q3707. A 43 year old presents in winter after noticing her fingers become painful and blue when it is cold. She has also noticed thick skin on her hands. She also complains of heartburn. On examination she has sclerodactyly and telangiectasia. Her anticentromere antibody is positive and her bloods reveal renal impairment. Considering the most likely diagnosis, what would be the most likely cause of death?

1- GI haemorrhage

2- Interstitial Lung Disease

3- Myocardial Infarction

4- Malignancy

**5- Renal Failure**

Q3708. A 32 year old swedish female presents with arthralgia, cough and fever. She has also noticed bruise like lesions on her shins. On examination there is bilateral ankle arthritis and erythema nodosum. A CXR shows bilateral hilar lymphadenopathy. What is the most likely diagnosis?

**1- Lofgren syndrome**

2- Lymphoma

3- SLE

4- Rheumatoid arthritis

5- Tuberculosis

Q3709. In a patient with SLE who suffers from arthralgia and mouth ulcers, but no other organ involvement, how would you manage them?

1- Analgesia

2- Cyclophosphamide

3- Nil

**4- Hydroxychloroquine**

5- Prednisolone

Q3710. A 28 year old male presents with recurrent mouth and genital ulcers, diarrhoea and red eye. On examination there is evidence if apthous ulcers in his mouth and genital ulcers. His eye appears injected around the iris and he is photophobic. He has raised inflammatory markers. What is the most likely diagnosis?

**1- Behcets disease**

2- Crohns disease

3- SLE

4- Secondary syphilis

5- Ulcerative colitis

Q3711. A 36 year old female presents with joint pain and swelling in the small joints of both hands. Bloods reveal an elevated ESR and Anti-CCP is positive. Which of the following is the most likely diagnosis?

1- Osteoarthritis

2- Reactive Athritis

**3- Rheumatoid Arthritis**

4- Reiter's Syndrome

5- SLE

Q3712. Which of the following bias are meta analysis most susceptible to?

1- Methodological bias

**2- Publication bias**

3- Statistical analysis

4- Response bias

5- Volunteer bias

Q3713. Which of the following formulae defines the positive predictive value?

1- (Number of True Negative s) /((Number of True Negative s) +(Number of False Negative s) )

2- (Number of True Negative s) /((Number of True Negative s) +(Number of False Positive s) )

**3- (Number of True Positive s) /((Number of True Positive s) +(Number of False Positive s) )**

4- (Number of True Positive s) /((Number of True Negative s) +(Number of False Positive s) )

5- (Number of True Positive s) /((Number of True Positive s) +(Number of False Negative s) )

Q3714. A 40 year old gentleman had a previous duodenal ulcer. He had eradication therapy for H. Pylori. He has represented some six months later with similar symptoms. A repeat endoscopy is performed and shows multiple small ulcers. He is on long term omeprazole, has no past medical history and is a non smoker and takes very little alcohol. What investigation do you organise?

1- Biopsy of ulcers

2- Colonoscopy

**3- Gastrin levels**

4- CT abdomen

5- Repeat H pylori eradication and a further OGD in 3 months time

Q3715. A 52 year old female presents with increasing fatigue over the last few months. She has also noticed pains in the joints of his fingers. She has noticed she is irritable and is having severe mood swings. Recently her periods have stopped. She has also noticed being thirsty and increased urinary frequency. On examination she appears very tanned and there is evidence of hepatomegaly. Given the most likely diagnosis, what treatment should be initiated?

1- Hormone replacement therapy

2- Metformin

3- Steroids

4- NSAIDs

**5- Venesection**

Q3716. A 46 year old female presents with fatigue, myalgia and pruritus. She is complaining of vague right upper quadrant pain and has noticed her skin and eyes appearing yellow in colour. On examination there is evidence of hepatomegaly and jaundice. Bloods reveal deranged LFTs (predominantly raised aminotransferase s) , a normocytic anaemia, elevated IgGs and anti nuclear antibodies and anti smooth muscle antibodies. She is commenced on steroids and azathioprine however she continues to deteriorate and now presents with decompensated cirrhosis. What is the next management step?

1- Budesonide

2- Ciclosporin

3- Methotrexate

**4- Liver transplantation**

5- Ursodeoxycholic acid

Q3717. What factor is not associated with an increased risk of developing a peptic ulcer? 1- H. pylori infection

2- NSAIDs

**3- Stress**

4- Smoking

5- Zollinger Ellison syndrome

Q3718. Which of the following features of Haemochromatosis responds with venesection?

1- Arthropathy

**2- Cardiomyopathy**

3- Diabetes

4- Cirrhosis

5- Testicular atrophy

Q3719. A 45 year old gentleman presents with rectal bleeding. He also describes tenesmus. A flexible sigmoidoscopy is performed and reveals an erythematous and friable mucosa with some superficial ulceration. Biopsies are taken. How should this patient be managed initially?

1- IV hydrocortisone

2- Oral Mesalazine

**3- Rectal mesalazine**

4- Prednisolone

5- Rectal prednisolone

Q3720. A 50 year old female with known alcohol related liver disease is noted by her husband to be confused and disorientated. She has been recently commenced on furosemide and spironolactone for recurrent ascites. Over the last few days she has complained of increased urinary frequency and dysuria. On examination there was evidence of ascites, which were not tense, and asterixis. Bloods revealed acute renal failure and deranged LFTs. What is the most likely cause of her confusion?

1- Acute renal failure

**2- Hepatic encephalopathy**

3- Spontaneous bacterial peritonitis

4- Sepsis

5- UTI

Q3721. A 60 year old gentleman presents to his GP with tiredness and increased shortness of breath. Bloods reveal a microcytic hypochromic anaemia and he is subsequently found to have iron deficiency anaemia. There is no evidence of any GI symptoms. What investigation is most appropriate to organise in this case?

**1- Colonoscopy**

2- CT Chest Abdomen and Pelvis

3- Recheck bloods in three months time after iron supplementation

4- Flexible sigmoidoscopy

5- Upper GI endoscopy

Q3722. In ulcerative colitis, which of the following carries the greatest risk of developing colorectal cancer?

1- Onset in adulthood

**2- Pancolitis**

3- Proctitis

4- Poor compliance

5- Relapsing and remitting disease

Q3723. A 52 year old female presents with increasing fatigue over the last few months. She has also noticed pains in the joints of his fingers. She has noticed she is irritable and is having severe mood swings. Recently her periods have stopped. She has also noticed being thirsty and increased urinary frequency. On examination she appears very tanned and there is evidence of hepatomegaly. Given the most likely diagnosis, what is most useful for monitoring response to treatment?

1- CRP

**2- Ferritin**

3- Haemoglobin

4- Glucose

5- Transferrin saturation

Q3724. A 35 year old female has had previous bowel resection and currently has an ileostomy. She comes to clinic complaining of a lesion around her stoma. On examination there is evidence of an ulcerated lesion which is purple in colour and is at the end of her stoma. It extends from the stoma into the surrounding skin. What is the most likely diagnosis?

1- Bullous pemphigoid

2- Crohns

3- Herniation of stoma

4- Dermatitis

**5- Pyoderma gangrenosum**

Q3725. How would you initially assess someone if you suspect they have Coeliac disease?

**1- Antiendomysial antibodies**

2- Antireticulin antibodies

3- Jejunal biopsy

4- GAD autoantibodies

5- Trial of gluten free diet

Q3726. A 60 year old gentleman with known alcohol excess presents with epigastric pain radiating to his back. This has occurred several times. He also describes steatorrhoea and weight loss. What is the most likely diagnosis?

1- Acute pancreatitis

2- Alcoholic Liver Disease

3- Coeliac disease

**4- Chronic pancreatitis**

5- Gastritis

Q3727. A 19 year old presents with a 2 month history of bloody diarrhoea, urgency, tenesmus and crampy abdominal pain. A colonoscopy is performed and reveals superficial ulceration with a friable mucosa and biopsy shows goblet cell depletion and crypt abscesses. What is the most likely diagnosis?

1- Coeliac Disease

2- Crohn's Disease

**3- Ulcerative colitis**

4- Gastroenteritis

5- Whipples disease

Q3728. A 48 year old female with known Raynaud's phenomenon presents as she has noticed certain areas of progressive skin tightness with thickness of the fingers, shortness of breath on exertion and difficulty swallowing. She is found to be hypertensive. Which of the following is the most likely diagnosis?

1- CREST syndrome

**2- Diffuse cutaneous scleroderma**

3- Limited cutaneous scleroderma

4- Ehlers Danlos

5- Systemic lupus erythematous

Q3729. A 60 year old gentleman presents with dysphagia. This initially began with solids and he is now gradually finding it increasingly more difficult to swallow liquids. He has also noticed that he has lost several kilos in weight over the past few months. He has no previous medical history however is a heavy drinker and smoker. On examination he looks cachectic and there is evidence of tenderness in the epigastrium. What investigation should be organised?

1- Abdominal ultrasound scan

2- Barium swallow

3- CT scan

4- Colonoscopy

**5- Upper GI endoscopy**

Q3730. A 67 year old male presents to her GP with two months of back pain. He is given analgesia however one week later he is admitted to A+E with bilateral leg weakness and urinary retention. He has recently lost a significant amount of weight. He is a heavy smoker. On examination his arms are hyperreflexic. He has 4/5 in hip and knee flexors. He has upgoing plantars and is hyperreflexic and has reduced sensation throughout all dermatomes of the lower limbs. He has normal anal sphincter tone, enlarged prostate and on passing a catheter for his retention he has reduced sensation. What investigation would you order?

1- CT Head

2- CT Lumbar spine

3- MRI Lumbar spine

4- Lumbar Xray

**5- MRI whole spine**

Q3731. A 45 year old female presents to her GP as she is worried about a tremor in her left hand that is worse when she is doing things. Her mother had a similar tremor. The rest of her examination is unremarkable. She is commenced on propanolol however cannot tolerate the side effects. What is an alternative management?

1- Amantadine

2- l-Dopa

3- Procyclidine

**4- Primidone**

5- Reassure

Q3732. An 79 year old female presents to her GP with falls. On examination there is evidence of a resting tremor in her hands, right worse than left. She has difficulty initiating movement and you notice reduced facial expression. Her tone is increased in her arms. She has no PMH of note and is only on ramipril for hypertension. Which of the following is the most likely diagnosis?

1- Benign essential tremor

**2- Idiopathic Parkinsons disease**

3- Multi System Atrophy

4- Lewy body Disease

5- Stroke

Q3733. A 72 year old female with hypertension and ischaemic heart disease presents with dysarthria and clumsiness of her left hand. On examination she has right sided facial weakness, clearly dysarthric and mild left hand weakness and clumsiness. What area of the brain is most likely affected?

1- Anterior limb internal capsule

**2- Dorsal pons**

3- Thalamus

4- Posterior limb internal capsule

5- Ventral pons

Q3734. A 25 year old female presents with a one week history left eye ache and visual blurring. She has a left relative afferent pupillary reflex and the optic nerve appears swollen. She has no PMH and is only taking the COC. Which of the following is the most likely diagnosis?

1- Acute closed angle glaucoma

2- Conjunctivitis

**3- Optic Neuritis secondary to demyelination**

4- Macular Degeneration

5- Optic Neuritis secondary to ischaemia

Q3735. A 37 year old male with HIV is brought to A+E with a 6 week history of behavioural and personality change. On examination there is evidence of conjugate gaze abnormality and ataxia. There is also left arm weakness. An MRI is performed and reveals on T2 weighted images multiple bilateral hyperintense lesions predominantly in periventricular and subcortical white matter. What is the most likely diagnosis?

1- Cerebral Toxoplasmosis

2- CMV Encephalitis

3- Multiple Sclerosis

4- Cryptococcosis

**5- Progressive Multifocal Leucoencephalopathy**

Q3736. A 55 year old female presents with double vision. On examination there is evidence of reduced sensation on the right side of her forehead. You notice her right eye has a right ptosis and dilated poorly reactive pupil and she can minimally move her eye. Where is the likely site of the lesion?

1- Left Cavernous Space

**2- Right cavernous sinus**

3- Right Internal auditory meatus

4- Right cerebello pontine angle

5- Right retro orbital space

Q3737. A 40 year old female has a history of migraines with aura which are increasing in frequency occurring about 5 times a month. She has had to phone in sick to work on several occasion. She has a PMH of asthma and is on HRT. Simple analgesia no longer works. How would you manage this patient?

**1- Prophylactic treatment with amitriptyline**

2- Prophylactic treatment with propanolol

3- Try a different triptan

4- Prophylactic treatment with verapamil

5- Use of opioid analgesia

Q3738. A 52 year old male presents with weakness in his arms. He has noticed he has been dropping things and his hands appeared thinned. He has also had some difficulty walking. On examination there is evidence of wasting in his hands and biceps with evidence of fasciculation. His biceps and supinator reflexes are brisk. Sensation is normal. In the lower limbs there is evidence of a spastic gait and his plantars are upgoing. Which of the following is the most likely diagnosis?

**1- Amyotrophic lateral sclerosis**

2- Cervical myelopathy

3- Multiple Sclerosis

4- Inclusion Body Myositis

5- Syringomyelia

Q3739. A 32 year old female has a three day history of severe occipital headache and neck pain following a minor injury. She is then brought to A+E following development of pain and numbness on the right side of her face, dysarthria, hoarseness, dysphagia and vertigo. There is left sided loss of pain and temperature sensation and weakness. She is ataxic and there is evidence of nystagmus and a right sided horners syndrome. What is the most likely diagnosis?

1- Cervical disc prolapse

2- Haemorrhagic stroke

3- Subarachnoid haemorrhage

4- Ischaemic stroke

**5- Vertebral artery dissection**

Q3740. A 49 year old woman presents with unilateral hearing loss and shooting pain in right side of face. Audiometry reveals a right sided sensorineural hearing loss. What is the most likely diagnosis?

**1- Acoustic neurinoma**

2- Long QT syndrome

3- Perforated Ear drum

4- Otitis Media

5- Trigeminal neuralgia

Q3741. A 22 year old patient is brought to A+E. She was complaining of a headache, malaise, fever and nausea and vomiting one day previously and then suddenly dropped her conscious level. She is dysphasic and has a right hemiparesis. She then develops a focal seizure. A CT shows abnormalities in temporal lobes, with hypodense areas being present. A lumbar puncture is performed and reveals a slightly high protein, normal glucose and raised mononuclear cell levels. What is the most likely diagnosis?

**1- Herpes Simplex Encephalitis**

2- Intracranial abscess

3- Intracranial tumour

4- Intracranial haemorrhage

5- Meningitis

Q3742. A 20 year old present with diarrhoea, weight loss and an itchy rash on her scalp, elbows and buttocks. You suspect dermatitis herpetiformis. On a skin biopsy, what immunoglobulins is likely to be found on immunofluorescence?

**1- IgA**

2- IgD

3- IgG

4- IgE

5- IgM

Q3743. A 72 year old female presents to her GP after noticing blisters on her arms and legs. She has recently been commenced on furosemide. On examination there is tense blisters evident predominantly on the flexural surfaces of her arms and legs. There is no evidence of blisters in her mucous membranes. There is some healing areas where the blisters have burst but no evidence of scarring. A skin biopsy is organised and reveals subepidermal blister and inflammatory infiltrate with numerous eosinophils. What is the most likely diagnosis?

**1- Bullous pemphigoid**

2- Dermatitis herpetiformis

3- Pemphigus Vulgaris

4- Eczema Herpeticum

5- Pyoderma Gangrenosum

Q3744. A 52 year old female has developed a rash on her hands, feet which is gradually spreading centrally, predominantly on the extensor surfaces. She has been unwell for a few days before with a cold and the rash developed suddenly. On examination there is numerous circular lesions approximately 2cm in diameter which have a purpuric or pale centre. She states that new lesions develop whenever if there is any trauma to a site. Which of the following is most commonly associated with the development of these skin lesions?

**1- Herpes simplex virus**

2- Herpes Zoster virus

3- Mycoplasma pneumoniae

4- Lymphoma

5- Tuberculosis

Q3745. A 52 year old patient who has recently been diagnosed with lung cell cancer present with weight gain (mainly around the face and trun k) , bruising easily, striae, and his skin appearing darker. On examination he has a moon face, buffalo hump and he is hypertensive. His bloods reveal hypokalaemia. What is the most likely diagnosis?

1- Addisons disease

2- Cushings disease

3- Exogenous steroids

**4- Ectopic ACTH secretion**

5- Hypothyroidism

Q3746. In a pituitary adenoma which hormone is likely to be present in elevated amounts?

1- ACTH

2- FSH

**3- Prolactin**

4- GH

5- TSH

Q3747. Which of the following is not a feature of MEN type 1?

1- Parathyroid hyperplasia

**2- Phaeochromocytoma**

3- VIPoma

4- Prolactinoma

5- Zollinger Ellison syndrome

Q3748. How does the PPAR gamma agonist, pioglitazone cause its effects?

1- Activate G linked proteins and down regulate genes.

2- Activate G linked proteins and upregulate genes

3- Heterodimer formation with the retinoid X receptor which binds to a promoter region and downregulates transcription of genes

**4- Heterodimer formation with the retinoid X receptor which binds to a promoter region and upregulates transcription of genes**

5- Reduce peripheral resistance

Q3749. A 56 year old gentleman who has chronic depression and alcohol dependency syndrome visits his GP for a check up. On examination he has truncal obesity, a buffalo hump and abdominal striae. There also appears to be facial fullness. He is hypertensive. A 24 hour urinary cortisol is slight elevated and an overnight dexamethasone suppression test reveals a morning cortisol which is slightly elevated and a midnight cortisol was 70ng/L. Which of the following is the most likely diagnosis?

1- Cushing's Disease

2- Cushing's Syndrome

3- Obesity

4- Ectopic ACTH

**5- Pseudo Cushing Syndrome**

Q3750. Which of these should not be utilised in the management of a thyrotoxic storm?

1- Beta blockers

2- Carbimazole or Propylthiouracil followed by Lugols solution

3- Corticosteroids

4- Chlorpromazine

**5- Lugols Solution followed by carbimazole or propylthiouracil**

Q3751. A 33 year old woman presents with amenorrhoea and has noticed reduced axillary and pubic hair. She has also noticed a change in her vision. On examination she has a bitemporal hemianopia. Her prolactin levels are over 2000mg/L. What is the most likely diagnosis?

1- Acromegaly

2- Diabetes

3- Microprolactinoma

**4- Macroprolactinoma**

5- PCOS

Q3752. A 64 year old gentleman with type 2 diabetes mellitus is found to have pre-proliferative retinopathy on his annual screening. He is obese and his blood pressure is 155/90 mmHg. He has evidence of proteinuria on urinalysis. A recent HBA1c is 8.0%. Which of the following would be most useful for reducing the progression of both the retinopathy and proteinuria?

1- Improved diet

2- Intense Glycaemic control

**3- Tight blood pressure control**

4- Smoking cessation

5- Weight reduction

Q3753. If a patient is symptomatic with thyrotoxicosis during pregnancy, how should this be managed?

1- Block and replace

**2- Carbimazole**

3- Radioiodine therapy

4- Monitor

5- Thyroidectomy

Q3754. A 65 year old gentleman is on metformin and gliclazide however continues to have a HbA1c of 8.7%. He is not keen to commence insulin. He has previously had an episode of left ventricular failure. His BMI is 21. Which of the following should be considered next?

1- Exenatide

2- Insulin

3- Pioglitazone

4- Monitor

**5- Sitagliptin**

Q3755. A 32 year old female with type 1 diabetes mellitus presents with yellow, brownish depressed patches on her shin. It began as a reddish brown colour and new patches appear if she bumps her leg. What is the most likely diagnosis?

1- Erythema nodosum

2- Granuloma annulare

3- Rheumatoid nodules

**4- Necrobiosis lipoidica**

5- Xanthoma

Q3756. A 35 year old with asthma and systemic sclerosis is found to have malignant hypertension with a BP of 220/130mmHg and evidence of retinal haemorrhages and pulmonary oedema on examination. How do you manage this patient immediately?

1- Atenolol

2- IV Labetalol

**3- Nifedipine**

4- IV Sodium Nitroprusside

5- Ramipril

Q3757. A 63 year old lady is found to have a small pericardial effusion incidentally on ECHO. She is asymptomatic and she is haemodynamically stable. What is the next most appropriate step in her management?

1- Cardiac catheterisation

2- Coronary Angiography

3- Pericardiocentesis

4- Diagnostic tap

**5- Reassure**

Q3758. What investigation is utilised to screen first degree relatives with HOCM?

1- CT of Heart

**2- Echocardiography**

3- MRI of heart

4- Genetic screening

5- Nil required

Q3759. A 19 year old patient presents with palpitations and light headedness. She was previously commenced on a beta blocker for this as an ECG revealed a short PR interval and Q waves in lead II, III and aVF. In the long term, what is the most appropriate management?

1- Amiodarone

2- Digoxin

**3- Radio frequency ablation**

4- Increased does of beta blocker

5- Verapamil

Q3760. A 42 year old male presents with fatigue, fever, night sweats and weight loss. He has been recently unwell with what he presumed was a viral infection. On examination there is evidence of cervical lymphadenopathy. You also noted quiet heart sounds and a pericardial rub. He is tachycardic. There is evidence of hepatosplenomegaly. Bloods reveal a pancytopenia. An Echo confirms a pericardial effusion. Which of the following is the most likely diagnosis?

1- Acute myocardial infarction

2- Coxsackie B viral infection

**3- Lymphoma**

4- Idiopathic

5- Tuberculosis

Q3761. An ETT shows J point ST depression of approximately 1 mm. What treatment should be initiated?

1- Commence aspirin

2- Commence beta blockers

3- Referral for Angiography

**4- Nil**

5- Repeat ETT

Q3762. A 50 year old man was admitted with central crushing chest pain. He is a smoker and is on ramipril fro hypertension which has not been well controlled. He is found to have ST depression in leads I, II, aVL, V4 V6 and his 12 hour troponin was 1.0. He underwent angiography and stent insertion. Three days later he is complaining of the same crushing central chest pain. A repeat ECG showed the same ST depression. Which enzyme should be measured to assess if there is further damage to the myocardium?

1- AST

**2- CKMB**

3- Troponin I

4- LDH

5- Troponin T

Q3763. A 65 year old gentleman has an anterolateral myocardial infarction. He has primary PCI and a drug eluting stent is inserted. However 24 hours later he complains of further chest pain. There is ST elevation in leads II, III and aVf. Which of the following is the most likely diagnosis?

1- Coronary artery spasm

2- Emboli

3- Stent thrombosis

**4- Rupture of atherosclerotic plaque**

5- Ventricular Aneurysm

Q3764. A 68 year old male presents with severe central chest pain. He is found to have ST elevation in the anterolateral leads. A primary PCI is performed and a stent inserted. He is then found to be hypotensive at 70/40 with a few bibasal crepitations. Heart sounds are pure. A central line is inserted and his pulmonary artery wedge pressure is 12 mmHg. Which of the following is the most appropriate management?

1- Fluid Restriction

2- Inotropes

3- IV furosemide

**4- IV fluids**

5- Repeat PCI

Q3765. A 39 year old female who is being treated for hypertension and has recently commenced ramipril presents with sudden onset shortness of breath. His is has a regular pulse but is tachycardic and his heart sounds are pure. On auscultation of the chest there is bibasal crackles. What is the most likely underlying cause?

1- Atrial Fibrillation

2- Hypertension

**3- Renal artery stenosis**

4- Ischaemic heart disease

5- Silent STEMI

Q3766. A 56 year old man is 48 hours post STEMI and suddenly develops pulmonary oedema. He looks unwell with a BP of 90/50mmHg and a heart rate of 105 bpm. He has bibasal crackles and a pansystolic murmur on auscultation. What investigation due you organise?

1- Cardiac Angiography

2- CXR

3- Troponin T

4- ECG

**5- Urgent echocardiogram**

Q3767. Which of the following is the most likely to lead to a fixed, wide split second heart sound?

1- Aortic Regurgitation

2- Aortic stenosis

3- Mitral stenosis

**4- Atrial Septal defect**

5- Ventricular Septal Defect

Q3768. A patient with central crushing chest pain associated with autonomic features has 1 mm of ST elevation in leads II,III and aVF. How do you manage this patient?

**1- Aspirin + clopidogrel +LMWH and repeat ECG**

2- Heparin only

3- Repeat ECG

4- PCI

5- Thrombolysis

Q3769. An 20 year old student is brought to A and E following a collapse in an a night club. There was no suspicion of illicit drug use. He has had 3 collapse episodes previously. He had regained consciousness after a few minutes. There is nil of note on examination with BP and HR within normal parameters. However, an ECG shows a QT interval of 0.56. Which ion channel is likely to be defective and have caused these signs and symptoms?

1- Calcium

2- Chloride

**3- Potassium**

4- Magnesium

5- Sodium

Q3770. A 70 year old man with Chronic Renal Impairment and Hypertension presents with chest pain and is found to have an acute anterolateral myocardial infarction. He is referred for PCI. 2 days later you are asked to review him as his legs appear dusky and his left big and second toe are blue and there is evidence of splinter haemorrhages on his toe nails. His BP is 150/90 mmHg and his pulse is regular and has a rate of 80 bpm. On auscultation his heart sounds are normal however there is evidence of a left femoral bruit.

**1- Cholesterol embolism**

2- Contrast nephropathy

3- Peripheral vascular disease

4- Embolism from femoral artery

5- Renal artery stenosis

Q3771. A 30 year old female who is 28 weeks pregnant presents with palpitations. On examination you find her heart rate to be 180. She is placed on a cardiac monitor which reveals a broad complex tachycardia. She is hypotensive, she feels short of breath and on auscultation of the chest there is evidence of bibasal crackles. How should this patient be managed?

1- IV adenosine

2- IV amiodarone

3- Non synchronised DC cardioversion

4- IV verapamil

**5- Synchronised DC cardioversion with monitoring of foetal heart rate**

Q3772. What organism is likely to be responsible for an infective endocarditis in a patient without a prosthetic valve?

1- HACEK group

**2- Staphylcocci**

3- Strep. pyogenes

4- Strep. bovis

5- Strep. viridans

Q3773. A 42 year old female with rheumatoid arthritis presents with dyspnoea, fatigue and ankle swelling. An ECG reveals 2:1 heart block and an echo is performed and reveals ventricular wall thickening with granular sparkling of left ventricle and dilated atria. What is the most likely diagnosis?

**1- Cardiac amyloid**

2- Dilated cardiomyopathy

3- Pericarditis

4- Hypertrophic cardiomyopathy

5- Restrictive cardiomyopathy

Q3774. A patient has taken an amitriptyline overdose. She is tachycardic and hypotensive and is having short runs of non sustained ventricular tachcardia. Her blood gases reveal a metabolic acidosis. In terms of the non sustained Ventricular tachycardia, what is the most appropriate management?

1- Implantable Defibrillator

2- IV Adenosine 6mg

3- IV Magnesium

4- IV Amiodarone 900mg

**5- IV Sodium bicarbonate**

Q3775. When, according to evidence base, should Iib IIIa inhibitors be utilised?

1- Along with Thrombolysis

2- Continued chest pain following thrombolysis

3- Pain free with ECG changes

**4- NSTEMI and awaiting angiography**

5- Unstable Angina

Q3776. A 50 year old gentleman presents with central chest pain with associated autonomic features. He looks grey and clammy and on auscultation his heart sounds are normal but there is bibasal crackles. His heart rate is 80 bpm and his blood pressure is 103/60 mm Hg. His ECG revealed ST elevation V1 to V4 and ST depression II, II and aVF. He is referred for Primary PCI. What is likely to be found at angiography?

1- 70 per cent stenosis of left anterior descending artery

2- 80 per cent stenosis of left circumflex artery

3- Complete occlusion of right coronary artery

**4- Complete occlusion of left anterior descending artery**

5- Vasospasm

Q3777. You are reviewing a patient who tells you she feels like a failure. She has no friends and claims no body would want to be her friend, lives alone, has never had a partner, finds it hard to interact with her family, has feelings of rage in between longer bouts of emptiness and self harms. Her notes detail 8 previous suicide attempts, including two whilst admitted. What is the diagnosis?

1- Bipolar depression

**2- Borderline personality disorder**

3- Schizophrenia

4- Dissociative disorder

5- Substance abuse

Q3778. You are asked to assess a patient that believes he is an angel sent from heaven. He is talking rapidly, and repeatedly jumps between subjects during your assessment. What term describes this continual change of subject?

1- Clang association

2- Delusions of grandeur

3- Neologism

**4- Flight of ideas**

5- Word salad

Q3779. A man presents to his GP on the insistence of his girlfriend. He was in a motorcycle accident in which another friend died 4 months previous and since then he has been low in mood and now hears the voice of his dead mother. He has lost 8 kilos in weight. Examination and blood tests reveal nothing. What is the likely diagnosis?

1- Adjustment disorder

2- Bipolar disorder

3- Post traumatic stress disorder

4- Post concussion syndrome

**5- Psychotic depression**

Q3780. A 24 year old unemployed gentleman presents to his GP complaining that aliens are beaming rays to his head that insert thoughts and pass on his own thoughts to them. He can hear voices discussing what they are going to do to hurt him and he describes an unknown force that can move his fingers out with his control. He states that when they are inserting thoughts he can taste an indescribable taste. It started 6 months ago and he thinks that his GP could help him capture his thoughts again. Examination is unremarkable. What is the diagnosis?

1- Bipolar disorder

2- Drug induced psychosis

**3- Paranoid schizophrenia**

4- Major depression

5- Schizotypal personality disorder

Q3781. A 29 year old woman complains of headaches, upset stomach, jaw pain, sore muscles and difficulty sleeping. Full examination reveals no medical issues. She doesnt accept that nothing was found during the investigations and seeks a second opinion. What is the diagnosis?

1- Conversion disorder

2- Hypochondriac

3- Psychosis

4- Personality disorder

**5- Somatisation disorder**

Q3782. A mother is concerned about her 6 year old son. He causes a lot of problems with his siblings, does not concentrate, is liable to emotional outbursts and teachers describe him as unruly. He has no medical problems and apart from being very active, his examination is otherwise normal. What is the most likely problem?

1- Aspergers

**2- Attention deficit hyperactivity disorder**

3- Learning difficulties

4- Early onset bipolar

5- Tourettes syndrome

Q3783. Which GLUT transporter is upregulated by insulin?

1- GLUT 1

2- GLUT 2

**3- GLUT 4**

4- GLUT 3

5- GLUT 5

Q3784. What is the risk following a needle stick injury of a HIV positive patient of contracting HIV?

1- 1 in 3

2- 1 in 30

3- 1 in 3000

**4- 1 in 300**

5- 1 in 50

Q3785. A dexamethasone test shows that a patients cortisol levels fail to change with a low dose, but fall with a high dose of dexamethasone. ACTH levels are high after a low dose but fall with a high dose of dexamethasone although they are still above the normal range. What is the diagnosis?

1- Adrenal tumour

**2- Cushings disease**

3- Hypothyroidism

4- Ectopic ACTH producing tumour

5- Pseudo Cushings syndrome

Q3786. Which of the following molecules in pulmonary surfactant is mainly responsible for reducing surface tension?

1- Cholesterol

2- DMPC

3- Phosphatidylcholine

**4- DPPC**

5- SP-A

Q3787. Which of the following is a method for identifying the 3D structure of proteins?

1- In Situ Hybridisation

2- Polymerase Chain Reaction

3- Western Blotting

4- Southern Blotting

**5- X-ray Crystallography**

Q3788. Which of the following would you expect to see on an ECG of a patient with hypercalcaemia?

1- Left axis deviation

2- Prolonged QT interval

3- T wave inversion

**4- Shortened QT interval**

5- Tall tented T waves

Q3789. Which of the following is not a treatment for carcinoid syndrome?

**1- Cabergoline**

2- Chemotherapy

3- Octreotide

4- Interferon alpha

5- Radiotherapy

Q3790. Which of the following would indicate an ulnar nerve lesion?

1- Anaesthesia of the 3 and a half digits on the ulnar side of the hand

2- Froments test shows a strong pinch grip

3- The middle and index fingers are in a claw

**4- Inability to abduct the little finger**

5- Wasting of the thenar eminence

Q3791. A 68-year-old female presents with central visual blurring. On examination there apprears to be small yellow deposits within the maculae and a small haemorrhage at the maculae. Fluoroscein angiography is performed and shows neovascularisation within the macula of both eyes. You suspect wet age related macular degeneration. Which of the following is an important risk factor for the development?

1- Cataract surgery

2- Diabetes

3- Hypertension

4- Glaucoma

**5- Smoking**

Q3792. Which of the following antihypertensives is most appropriate for use during pregnancy?

1- Atenolol

2- Bendroflumethiazide

3- Losartan

**4- Labetalol**

5- Ramipril

Q3793. Imatinib is utilised in the management of Chronic Myeloid Leukaemia. What is its mechanism of action?

1- PPAR gamma activator

2- PPAR gamma inhibitor

**3- Tyrosine kinase inhibitor**

4- Tyrosine kinase activator

5- Tyrosine kinase receptor blocker

Q3794. A 65 year old male who has a past medical history of STEMI, hypertension and osteoarthritis is found to have ARF. His CK is over 5000. Which of the following is the most likely cause?

1- Atenolol

2- Furosemide

3- Ramipril

4- Ibuprofen

**5- Simvastatin**

Q3795. A patient with AF for which he is on digoxin, aspirin and atenolol if found to be in acute renal failure. What medication changes are essential?

1- Increase dose of digoxin

2- No changes required

3- Stop aspirin

**4- Reduce dose of digoxin**

5- Stop atenolol

Q3796. Which of the following drugs is not an enzyme inducer?

1- Alcohol

2- Carbamazepine

3- Phenytoin

**4- Cimetidine**

5- Rifampicin

Q3797. The plasma concentration of a drug on measurement is 20 mg/L. After 15 hours its levels is 2.5 mg/L. What is the half life of this drug?

1- 10 hours

2- 3 hours

**3- 5 hours**

4- 4 hours

5- 6 hours

Q3798. A patient is commenced on isoniazid and is a fast acetylator. Which of the following is this patient more likely to develop than a slow acetylator?

1- Hepatotoxicity

2- Nausea

3- Peripheral Neuropathy

**4- None of these**

5- Treatment failure

Q3799. A pregnant patient is found to have a macrocytic anaemia in her third trimester. What is the most likely cause?

1- Dilutional

**2- Folate deficiency**

3- Iron deficiency

4- Hypothyroid

5- Vitamin B12 deficiency

Q3800. Which of the following genetic mutations is associated with the worst prognosis in acute lymphoblastic leukaemia?

1- inv 16

2- t(1;19)

3- t(4;11)

4- t(12;21)

**5- t(9;22)**

Q3801. A 35 year old man with a HIV for approximately 10 years presents after noticing lesions on his neck and lower legs. These are papular brownish lesions. What is the most likely diagnosis?

1- Bacillary Angiomatosis

2- Bowens Disease

3- Necrobiosis Lipoidica

**4- Kaposis sarcoma**

5- Pityriasis Versicolor

Q3802. What is the chance of a male child having haemophilia A if her father had the condition and her partner is normal?

1- 0%

2- 5%

**3- 50%**

4- 25%

5- 100%

Q3803. A patient with Alport syndrome has a daughter with extremely mild symptoms compared to himself. What is the mode of inheritance?

1- Autosomal dominant

2- Autosomal recessive

**3- X linked dominant**

4- Mitochondrial

5- X linked recessive

Q3804. A patient is admitted with decompensated liver disease and tense ascites. His bloods reveal an acute renal failure. He is not on any nephrotoxic drugs. He had been previously on spironolactone and furosemide for prophylaxis of ascites however these were stopped some months ago. His blood pressure is 130/80 mmHg and his renal failure does not respond to fluids. A urinalysis shows a trace amount of protein but nil else. An ultrasound of the renal tract shows no evidence of obstruction. What is the most likely diagnosis?

1- Glomerulonephritis

**2- Hepatorenal syndrome**

3- Previous furosemide use

4- Hypovolaemia

5- Sepsis

Q3805. A 14 year old girl is suffering from thirst and increased urination. She is found to have a hypokalaemic, hypochloraemic alkalosis and hypomagnesaemia. A 24 hour urine collection reveals hypocalciuria and an ECG QT prolongation. What is the most likely diagnosis?

1- Bartters syndrome

**2- Gitelmans syndrome**

3- Type 1 renal tubular acidosis

4- Liddles syndrome

5- Type 4 renal tubular acidosis

Q3806. A patient is found to have hypokalaemia, hyperchloraemic acidosis, hypercalciuria and a urinary pH of 6.4. What type of renal tubular acidosis does this indicate?

1- Does not indicate renal tubular acidosis

**2- Type 1**

3- Type 3

4- Type 2

5- Type 4

Q3807. A 9 year old presents unwell with a mild fever. He had a cold in the preceding few days and has now developed a purpuric rash on his buttocks and legs. He is also complaining of joint pain. A urinalysis reveals haematuria and proteinuria and bloods reveal acute renal failure and eosinophilia. What is the likely pathological basis of the renal disease, given the likely diagnosis?

1- Glomerular complement deposition and mesangial proliferation

**2- Glomerular IgA deposition and mesangial proliferation**

3- Glomerulo sclerosis

4- Glomerular IgG deposition and mesangial proliferation

5- Loss of podocytes

Q3808. Which class of immunoglobulin is associated with periodic fever?

1- IgA

**2- IgD**

3- IgG

4- IgE

5- IgM

Q3809. An 18 year old female is brought to A and E very unwell with a high fever, a macular and erythrodermic rash, myalgia and diarrhoea and vomiting. She is hypotensive. She is thought to have a tampon retained. She is transferred to ITU as she is found to be in Acute renal, liver and respiratory failure. 10 days after the onset there was desquamation of the palms and soles. Which of the following is not useful in the management?

1- Cephalosporins

**2- Ciprofloxacin**

3- Penicillin V

4- Clindamycin

5- Vancomycin

Q3810. When should patients who are having a splenectomy be given the pneumococcal vaccination?

1- 1 week before surgery

2- 1 week following surgery

3- 2 weeks following surgery

**4- 2 weeks before surgery**

5- 3 days before surgery

Q3811. A 28 year old presents with a facial rash, joint pain and fever. There is no evidence of active synovitis and there is a malar butterfly rash over her nose and cheeks. Anti-ds-DNA and anti-Ro antibodies are positive. What is the most likely diagnosis?

1- Psoriasis

2- Rheumatoid arthritis

**3- Systemic lupus erythematosus**

4- Stills Disease

5- Systemic sclerosis

Q3812. A 63 year old man with a history of hypertension is on bendroflumethiazide. He presents with an acutely swollen and very painful big toe. How would you reliably distinguish gout from a septic arthritis as the cause?

1- Erythema of joint

2- High Urate

3- Pyrexia

**4- Negatively birefringent crystals in synovial fluid**

5- Raised Inflammatory markers

Q3813. A 45 year old patient with a raised BMI presents with a hot, swollen, red very painful big toe. How do you manage this?

1- Allopurinol

**2- Diclofenac**

3- Paracetamol

4- Flucloxacillin

5- Steroids

Q3814. A 60 year old gentleman presents with proximal muscle weakness and has noticed a rash on his knuckles and a purplish rash around his eyes. His CK is elevated. He also admits to having significant weight loss and a cough and haemoptysis. Which antibody would you expect to find?

1- Anti CCP

2- Anti centromere

**3- Anti Jo 1**

4- Anti dsDNA

5- Rheumatoid Factor

Q3815. In which of the following would you avoid etanercept?

1- Can be used in any combination

2- Use with methotrexate

3- Use with penicillamine

4- Use with NSAIDs

**5- Use with sulphasalazine**

Q3816. A 70 year old who is on warfarin for a pulmonary embolus presents with acute gout. How would you manage this patient?

1- Allopurinol

2- Colchicine

**3- Prednisolone**

4- NSAIDs

5- Weak opioids

Q3817. A 34 year old male presents with left neck and shoulder pain. He also notices a tingling sensation in his left forearm which is particularly noticeable on carrying his briefcase or shopping bags. He also complains of his left hand turning cold and white on occasion. On examination there is evidence of wasting in his thenar muscle and sensory loss over the ulnar aspect of the forearm. There is pallor of his left arm when elevated and loss of his left radial pulse on abduction and external rotation of his left shoulder. Which of the following is the most likely diagnosis?

1- Brachial Neuritis

2- Cervical Radiculopathy

3- Frozen Shoulder

4- Cervical Spondylosis

**5- Thoracic Outlet Syndrome**

Q3818. What parameter is likely to be most greatly affected by outliers in the data?

1- Interquartile range

**2- Mean**

3- Mode

4- Median

5- Odd ratio

Q3819. You are asked to analyse the results of a studying which compares respiratory rate to a self reported mood scale which goes from 1 to 5. What test would you use to see if there is an association?

1- Analysis of variance

2- Paired t test

3- Scatter plot

4- Pearson product moment correlation

**5- Spearmans rank correlation coefficient**

Q3820. A 26 year old female presents with fatigue, myalgia and pruritus. She is complaining of vague right upper quadrant pain and has noticed her skin and eyes appearing yellow in colour. On examination there is evidence of hepatomegaly and jaundice. Bloods reveal deranged LFTs (predominantly raised aminotransferase s) , a normocytic anaemia, elevated IgGs and anti LKM antibodies. Given the most likely diagnosis, what treatment should be commenced?

1- Azathioprine

2- Ciclosporin

**3- Prednisolone**

4- Colestyramine

5- Ursodeoxycholic acid

Q3821. A 26 year old female presents with fatigue, myalgia and pruritus. She is complaining of vague right upper quadrant pain and has noticed her skin and eyes appearing yellow in colour. On examination there is evidence of hepatomegaly and jaundice. Bloods reveal deranged LFTs (predominantly raised aminotransferase s) , a normocytic anaemia, elevated IgGs and anti LKM antibodies. Given the most likely diagnosis steroids are commenced however the patient is concerned regarding the side effects of steroids. What agent is used first line as a steroid sparing agent?

**1- Azathioprine**

2- Budesonide

3- Methotrexate

4- Ciclosporin

5- Ursodeoxycholic acid

Q3822. A 19 year old female presents with a few month history of abdominal pain, watery diarrhoea and weight loss. She has noticed on a few occasions redness of her eye causing some discomfort and bruise like lesions on her shins. A colonoscopy is performed and reveals a cobblestone appearance. What is the most likely diagnosis?

1- Colorectal Cancer

**2- Crohns disease**

3- Irritable Bowel Syndrome

4- Gastroenteritis

5- Ulcerative Colitis

Q3823. The C282Y mutation on chromosome 6 is associated with which disease?

1- FAP

2- Gilberts syndrome

3- Haemophilia A

**4- Haemochromatosis**

5- HNPCC

Q3824. A 48 year old woman presents with dysphagia. This is both to liquids and solids. She has also associated retrosternal pain and she does sometimes regurgitate food. She has not had any weight loss. There is no past medical history and she is well otherwise. There is nil of note on examination and bloods are normal. A barium swallow is organised which shows a dilated oesophagus and birds beak appearance at the distal end of the oesophagus. What is the most likely diagnosis?

**1- Achalasia**

2- Chagas disease

3- Hiatus hernia

4- GORD

5- Oesophageal cancer

Q3825. A 25 year old female presents with a 6 month history of alternating diarrhoea and constipation. She also complains of abdominal bloating and passing mucous per rectum. There is no history of weight loss and her bloods are normal. What is the most likely diagnosis?

1- Coeliac disease

2- Colorectal carcinoma

**3- Irritable Bowel Syndrome**

4- Crohns disease

5- Ulcerative Colitis

Q3826. What is the most useful indicator of prognosis following a paracetamol overdose?

1- APTT

2- Bilirubin

**3- Prothrombin time**

4- Liver transaminases

5- Renal function

Q3827. A 70 year old male with long standing diabetes presents with severe pain in his left thigh. On examination there is marked wasting of his quadriceps on the left side and loss of knee reflex. What is the most likely diagnosis?

1- Acute painful neuropathy

2- Autonomic neuropathy

3- Meralgia paraesthetica

**4- Diabetic amyotrophy**

5- Mononeuritis Mulitplex

Q3828. A 68 year old female with Parkinson's Disease. She is now having episodes of severe dyskinesia which rapidly changes to immobility within minutes. She is currently on co-careldopa. Which of the following is the most appropriate step?

1- Addition of Cabergoline

**2- Addition of Ropinirole**

3- Increase dose of Co-careldopa

4- Addition of selegiline

5- Reduce dose of Co-careldopa

Q3829. A 71 year old male with parkinson's disease has recently had his co-careldopa dose increased as his GP thought there had been a worsening of his symptoms. He is also on ropinirole. He is then referred as things have gotten worse since his medication has been increased. He appears to be suffering from dyskinesia. Which of the following is the most appropriate action you would take?

1- Add in Amantadine

2- Add in Selegiline

3- Reduce co-careldopa and switch ropinirole to pramipexole

**4- Reduce co-careldopa and maximise dopamine agonist**

5- Stop co-careldopa and maximise dopamine agonist

Q3830. Which of the following is most suggestive of idiopathic Parkinson's disease rather than a Parkinsonism plus syndrome?

**1- Asymmetrical Symptoms**

2- Bradykinesia

3- Early onset postural hypotension

4- Early onset dementia

5- Ocular signs

Q3831. A 32 year old male with type 1 diabetes mellitus is complaining of double vision. It is worst on looking left and is improved when covering his left eye. What structure is likely to have been involved?

**1- Left abducens**

2- Left oculomotor

3- Left trochlear

4- Left optic nerve

5- Right abducens

Q3832. Infarction of what area of the brainstem would lead to preserved horizontal eye movements, dolls eye reflexes, impaired convergence and upward and downward gaze and sluggish dilated pupils?

**1- Dorsal midbrain**

2- Dorsal pons

3- Ventral midbrain

4- Lateral medulla

5- Ventral pons

Q3833. What is the most useful treatment for Gilles de la Tourette syndrome?

1- Chlorpromazine

2- Clozapine

**3- Risperidone**

4- Cognitive behavioural therapy

5- Tricyclic Anti depressants

Q3834. A 65 year old male is brought to A and E. He had collapsed. Prior to this he felt light headed. He has since noticed that he has double vision when looking to the left side and on examination his right eye has a dilated pupil, is looking down and in, and he has ptosis. He also has a left sided hemiparesis. Which artery has been affected?

1- Anterior cerebral artery

2- Anterior communicating artery

3- Middle cerebral artery

**4- Basilar artery branch**

5- Posterior cerebral artery

Q3835. A 68 year old female is brought to her GP by her husband. He states she has become very forgetful of late and is unable to concentrate. He has also noticed over the last few months that she is incontinent of urine and has been walking in an unusual way. On examination there is evidence of gait apraxia and her reflexes are brisk. What is the most likely diagnosis?

1- Alzheimers Disease

2- Lewy Body Dementia

3- Parkinsons Disease

**4- Normal Pressure Hydrocephalus**

5- Picks Disease

Q3836. A 48 year old male who is a heavy smoker presents to his GP as he has noticed his right eyelid is drooping. On examination there is ptosis of the right eye, right pupillary constriction and right sided anhidrosis. There are no other signs and his only other complaint is that of a smoker's cough. Which of the following investigations should initially be performed to establish the diagnosis?

**1- Chest Xray**

2- CT Chest, Abdomen and Pelvis

3- Lumbar Puncture

4- CT Head

5- MRI spine

Q3837. Botulinum toxin has which of the following features?

1- It is produced by a Gram-positive, aerobic bacillus

**2- It may be used in the treatment of blepharospasm**

3- Its main activity is at the presynaptic membrane

4- It may be used in the treatment of myasthenia gravis

5- The bacillus has 15 serotypes

Q3838. During which phase of the cell cycle is DNA replicated?

1- The G0 phase

2- The G1 phase

3- The M phase

4- The G2 phase

**5- The S phase**

Q3839. Which of the following is an important mechanism to prevent cortisol inappropriately activating aldosterone receptors in the kidney?

1- 11b hydroxydehydrogenase type 1 enzyme activity converting cortisol to cortisone

**2- 11b hydroxydehydrogenase type 2 enzyme activity converting cortisol to cortisone**

3- Downregulation of aldosterone receptors

4- Cortisol renally excreted

5- Lack of affinity of cortisol for aldosterone receptors

Q3840. A 14 year old girl presents with moderate acne and pustules affecting the face, back and chest. How would you manage this case?

1- Dianette

**2- Oral tetracycline for three months**

3- Topical Erythromycin

4- Roaccutane

5- Topical tretinoin

Q3841. A 50 year old male who is a heavy smoker presents with velvety, hyperpigmented skin in his axillae. He has also noticed he has lost several stones in weight and has anorexia. What is the most likely diagnosis?

**1- Acanthosis nigricans**

2- Chloasma

3- Pseudoxanthoma Elasticum

4- Necrobiosis Lipoidica

5- Tinea Cruris

Q3842. A 30 year old female who has been recently unwell with a flu like illness presents with a painful and tender swelling in her neck. She is feeling anxious, intolerant to heat and suffering from palpitations. Her TSH is reduced and T4 is elevated. What is the most likely diagnosis?

**1- De Quervains thyroiditis**

2- Hashimoto thyroiditis

3- Pharyngitis

4- Multinodular goitre

5- Thyroid malignancy

Q3843. What is the mechanism of action of meglitinides?

1- PPARgamma agonist

2- Reduced peripheral insulin resistance

**3- Stimulates insulin release from beta cells by closure of K ATP channel**

4- Stimulates insulin release form a cell by closure of K ATP channel

5- Weight loss

Q3844. A 42 year old female presents with malaise, night sweats and weight loss. She has also noticed tender bruise like lesions on her shins. A CXR reveals bilateral hilar lymphadenopathy. She has also noticed polydipsia, polyuria and constipation over the last few weeks and bloods reveal hypercalcaemia. Given the most likely diagnosis, what is the cause of her hypercalcaemia?

1- Bony metastases

2- Hyperparathyroidism

3- Reduced Urinary calcium excretion

**4- Increased hydroxylation of Vitamin D**

5- Secretion of PTH like peptide

Q3845. A 37 year old male presents due to loss of libido and erectile dysfunction. He has also noticed a small lump in his testes. On further questioning he has been suffering from headaches and tiredness over the last few months. Bloods reveal a low testosterone level and GnRH levels are also low. There is a mild elevation of prolactin. There is evidence of an elevated IGF1 levels. Which of the following is the most likely diagnosis?

1- Hypothyroidism

**2- Pituitary Adenoma**

3- Testicular Cancer - Teratoma

4- Testicular Cancer - Seminoma

5- Vascular Disease

Q3846. A 32 year old female presents with a lump in her neck which is deemed to be of thyroid origin. It is giving her some problems with swallowing. Her thyroid function tests are normal and an ultrasound is arranged. A radionuclide uptake scan is organised and shows a cold nodule and her FNA is suspicious of follicular carcinoma. How would you manage this patient?

1- Radioiodine therapy and oral replacement

2- Thyroxine

**3- Total thyroidectomy, radioiodine therapy and oral replacement**

4- Total Thyroidectomy

5- Watch and Wait

Q3847. A patient suffering from hypothyroidism has her dose increased and has her bloods checked one week later. Her TSH and free T4 is elevated. What should you do with the dose of medication?

1- Decrease dose

2- Increase dose

**3- No change in dose and repeat bloods in another 3 weeks**

4- No change in dose and repeat bloods in 3 months

5- No change in dose and repeat bloods in one week

Q3848. A 73 year old female suffers a pathological fracture. She has been complaining of constipation, anorexia, thirst and urinary frequency. SHe is found to be hypercalcaemic, hypophosphataemic and a raised PTH. What is the most likely diagnosis?

1- Bony metastases

2- Myeloma

3- Pagets disease

4- Osteomalacia

**5- Primary Hyperparathyroidism**

Q3849. A 48 year old female is suffering from oligomenorrhoea. She is also complaining of tiredness, dizziness, weight gain, cold intolerance, constipation, hair and nail changes and is found to have low potassium and glucose on bloods. Her FSH, LH and oestrogen levels are low. What is the most likely cause of her amenorrhoea?

1- Addisons

2- Hypothyroidism

3- Polycystic ovarian syndrome

**4- Panhypopituitarism**

5- Primary ovarian failure

Q3850. Which of the following is not useful in the management of thyroid eye disease?

1- Ciclosporin

2- Orbital Decompression

3- Radiotherapy

**4- Radioiodine therapy**

5- Steroids

Q3851. A patient who is ICU is found to have a slightly low TSH, low T3 and normal T4. She has no history of thyroid disease. What is the most likely cause?

**1- Euthyroid sick syndrome**

2- Hyperparathyroidism

3- Pituitary Hypothyroidism

4- Hypothyroidism

5- Subclinical hyperthyroidism

Q3852. A 73 year old female who is otherwise fit and well and is on no other medications, presents with bone pain and has had a recent fracture. She is found to have a low calcium, low phosphate and high alkaline phosphatase. What is the most likely cause?

1- Myeloma

2- Paget's disease

**3- Vitamin D deficiency due to lack of sunlight**

4- Renal disease

5- Vitamin D deficiency secondary to malabsorption

Q3853. A 60 year old male presents with headaches. On examination he appears to have very large hands and a prominent jaw. He is hypertensive and appears to be sweating profusely. Which of the following is useful in the first instance for the diagnosis?

1- Cortisol levels

2- Glucose levels

**3- IGF1 levels followed by growth hormone levels before and after glucose tolerance test**

4- Growth hormone levels

5- Short synacthen

Q3854. A 27 year old gentleman presents with recurrent episodes of sweating, palpitations, dizziness and weakness. He has noticed them occurring particularly in the early morning. During one of these episodes his BM is found to be 2.9. Which of the following investigation will be most useful in confirming the diagnosis?

1- C peptide level

**2- Fasting (48 hours or 72 hour s) glucose, insulin, proinsulin and c peptide levels**

3- Glucose tolerance test

4- Fasting glucose

5- Random glucose, insulin, proinsulin and c peptide levels

Q3855. A 28 year old female presents with irregular periods. She is overweight and has problems with excessive hair and acne. You notice she appears to have broad shoulders and a deep voice. An ultrasound reveals nests of cells throughout the ovarian stroma. Bloods reveal elevated testosterone levels. What is the most likely diagnosis?

1- Androgen producing tumour

2- Congenital adrenal hyperplasia

3- Cushings syndrome

**4- Ovarian hyperthecosis**

5- Polycystic ovarian syndrome