

Bx: biopsy/ Dx: diagnosis/ Mx: multiple diagnosis/ Fx: family/ Hx: history/ Ix: investigation/ Px: prognosis/

px: physical examination/ Rx: prescription/

RED: repeated+done/ BLUE: done/ GREEN: from web/ PURPLE: from pathology notes

2012

Q1. List 5 Causes of fever other than infection. (10 marks) (2012 Q1 2007 Q1 2009 Q2)

Q2. (2012 Q2 2008 Q4 2006 Q2)

A. What are the 4 stages of clubbing of fingers? (4 marks) (2012 Q2a 2007 Q2a)

(WEB)

1. Fluctuation and softening of the nail bed
2. Loss of normal angle of between nail bed and skin
3. Abnormal sponginess (floating sensation) at base of nail
4. Thickening of pulp of fingertip (drumstick appearance)

B. List 6 conditions which can give rise to clubbing of fingers. (6 marks) (2012 Q2b 2011 Q2b)

1. Lung cancer
2. Bronchiectasis
3. Pulmonary fibrosis
4. Chronic lung abscess
5. Cyanotic congenital disease
6. Infective endocarditis

Q3. (2012 Q3 2011 Q4)

A. Define meningitis. (3 marks)

B. Name 3 clinical features that can be seen in meningitis. (3 marks) (2012 Q3b 2010 Q2a)

C. List 2 causes of meningitis and the treatment for each of these causes. (4 marks) (2012 Q3c 2010 Q2bc)

Q4. (2012 Q4 2011 Q5)

A. How many lobes are found in the right lung and the left lung anatomically? (4 marks)

B. List the major anatomical divisions of the right lung. (6 marks)

Right Lung 3: superior/ horizontal fissure/ middle/ oblique fissure/ inferior

Left Lung 2: superior/ oblique/ inferior

Q5. The following about atrial fibrillation is true. (10 marks) (2012 Q5 2010 Q5)

A. It is the most common cardiac arrhythmia in the elderly population.

B. common causes are hypertension, ischemic heart disease and thyrotoxicosis.

C. It has got no association with cerebrovascular accidents (stroke).

D. Digoxin may be used in rate control of atrial fibrillation.

E. Palpation of the radial artery shows regular fast pulse.

2011

Q1. List 5 aspects of a patient's medical history that could help you establish the cause of a fever of unknown origin. (10 marks) (2011 Q1 2010 Q3)

Travel – malaria, typhoid, HIV, dengue

Rx Hx – drug fever, drug abuse, anticytokine (infliximab, adalimumab) opportunist infections, partial rx

Animal contact – brucellosis, melioidosis, psittacosis/ ornithosis

Sexual & menst' Hx – HIV, other STDs, pelvic inflammatory disease

Hx living rough – relapsing fevers, leptospirosis (spirochaetal), drug abuse

Q2. A. Describe 5 signs in the hands of patients with liver diseases. (5 marks)

1. palmar erythema: reddening of the skin on the palmar aspect of the hands, usually over the hypothenar eminence

- chronic liver disorder, rheumatoid arthritis, pregnancy, thyrotoxicosis, chronic febrile illness, chronic leukaemia

2. clubbing of fingers and toes: deformity of the finger or nails associated with several diseases

3. dupuytrens' contracture: knots of tissue form under the skin, eventually creating a thick cord that can pull on more fingers into a bent position

- cirrhosis, DM, systemic fibrosclerosing syndromes

4. white nails

- leukonychia

5. flapping tremor: tremor of the hand when the wrist is extended

- severe hepatocellular decompensation

B. (2012 Q2b 2011 Q2b)

Q3. The following about heart failure are true. (10 marks)

A. The common presentations are dyspnoea, ankle swelling, orthopnoea.

B. Common signs are increased JVP, tachycardia, gallop rhythm and crepitation.

C. Treatment involves encouragement of exercise.

D. Diuretics may be used to remove excessive sodium and water from the body.

E. Digoxin must not be used when the heart failure is complicated by atrial fibrillation.

Q4. (2012 Q3 2011 Q4)

Q5. (2012 Q4 2011 Q5)

2010

Q1. (2010 Q1 2009 Q1)

A. (2012 Q2a 2010 Q2a)

B. List 6 other stigmata of chronic liver disease. (6 marks)

1. Palmer erythema
2. Gynecomastia
3. Jaundice
4. Spider anima
5. Scattered telangiectasia
6. Clubbing of fingers and toes

Q2. A. Name 4 symptoms or signs of meningitis. (4 marks) (2012 Q3b 2010 Q2a)

B. Name 3 kinds of infective agents that can cause meningitis. (3 marks) (2012 Q3c 2010 Q2bc)

C. What are the treatments of choice for meningitis caused by those 3 kinds of infective agents? (3 marks)

Q3. In a patient with fever but no other specific symptoms, what aspects of the clinical history can assist doctors in making a diagnosis? (10 marks) (2011 Q1 2010 Q3)

Q4. Briefly outline the physical examination of respiratory system. (10 marks) (2010 Q4 2009 Q4)

(Wash your hands

Introduce yourself to the patient check the identity of the patient

Ask the patient's permission to carry out the examination

Privacy

Give a brief explanation to the patient before you start)

1. general examination

- Overall patient condition and behaviour
 - o including general appearance, tachypnea, cyanosis
- Note all bedside information
 - o oxygen supplementation, breathing accessories
- General features
 - o eg. Cachexia, obesity, coughing, voice, chest deformities (may be obvious without full exposure of chest), rash, etc
 - o Tongue – Central cyanosis
 - o Hands and nails – color, clubbing etc.
 - o Breathing pattern – fast, slow, shallow
 - o Neck – Masses, use of accessory muscles of breathing
 - o Legs – ankle edema, unilateral leg swelling
- Breathing pattern
 - o Note breathlessness, respiratory distress, wheezing, etc.

2. Chest inspection

- overall view of chest wall and spine to note kyphosis, scoliosis, asymmetry, scars, prominent veins, etc.
- note neck and supraclavicular fossa
- must include anterior and posterior aspects

- flattening or over-inflation may be better assessed from the side

3. Respiratory movements

- Regional asymmetry: diseased side moves less
- Expansion of the lower zones assessed by stretching fingers and thumbs over the lower ribs

4. Palpation

- Cervical lymph nodes
- Position of the mediastinum i.e. trachea and apex beat
- Chest wall: palpate for masses or the rib if c/o of pain there (for localized tenderness)
- Palpate for chest expansion or for chest vibration on speech (tactile/vocal fremitus)

5. Percussion

- Symmetrical areas percussed on both anterior and posterior
- Lungs are aerated structures – should be resonant
- **Cardiac and hepatic dullness**

6. Auscultation

- Symmetrical areas percussed on both sides – anterior/ posterior
- Percussion of lung apex from posterior

Q5. (2012 Q5 2010 Q5)

2009

Q1. (2010 Q1 2009 Q1)

Q2. List 5 possible causes of Nosocomial Fever (fever acquired after/ related to hospitalization). (10 marks)
(2012 Q1 2007 Q1 2009 Q2)

Q3. (2009 Q3 2008 Q2) (NOTES)

A. Define what is shock. (4 marks)

A state of generalized hypoperfusion of all cells and tissues due to reduction in blood volume or cardiac output or to redistribution of blood, resulting in an inadequate effective circulatory volume.

B. Name 3 major types of shock. (6 marks)

1. hypovolemic
2. cardiogenic
3. septic
4. anaphylactic
5. neurogenic

Q4. (2010 Q4 2009 Q4)

Q5. The following about hypertension are true. (10 marks)

- A. Stage 1 hypertension is defined as systolic blood pressure 140-159 or diastolic blood pressure 90-99 mmHg.
- B. When systolic and diastolic pressures fall into different categories, the higher category should guide classification.
- C. Non-pharmacological therapy for hypertension includes making sure to drink no less than 1 litre of water a day.
- D. Diuretics can be used to treat hypertension.
- E. Hypertension is a risk factor for coronary artery disease.

2008

Q1. Describe the signs that can differentiate pneumonia from pneumothorax on examine the chest? (10 marks)

1. pneumonia: noises: crackling, bubbling/ wheezing / percussion: dull
2. pneumothorax: noises: no/ chest pain/ percussion: hyper-resonant

Q2. (2009 Q3 2008 Q2)

Q3. List the characteristic features required to make a diagnosis of classical FUO (Fever of Unknown Origin). (10 marks)

1. $T > 38.3^{\circ}\text{C}$ (100°F)
2. Several times over 3 weeks
3. No Dx after Ix in hospital for 1 week

Q4. (2012 Q2 2008 Q4 2006 Q2)

Q5. A. I. What are the pulse characteristics of atrial fibrillation? (2 marks)

Rate and volume irregularly irregular

II. What are the causes of atrial fibrillation? (3 marks)

- HT
- IHD
- Thyrotoxicosis
- Pericarditis
- Cardiomyopathy
- Idiopathic

B. I. Describe the important investigations of ischemic heart disease. (2 marks)

- ECG
- Cardiac Enzymes: CPK, Troponin, AST, LDH
- Treadmill exercise stress test
- CT Coronary angiogram
- MRI Cardiac perfusion
- Thallium radionuclide cardiac scan
- Cardiac Catheterization

II. What are the treatment strategy of patients suffering from ischemic heart disease? (3 marks)

- Bed Rest
- Oxygen
- Medication (Aspirin, Nitrates)
- Surgery (Percutaneous Coronary Intervention, Coronary Arterial Bypass Grafting)
- Risk Factors Modification

2007

Q1. Name 5 causes (or examples) of non-infective fever belonging to different categories. (10 marks) (2012)

Q1 2007 Q1 2009 Q2)

1. Neoplasm

- Lymphoma
- solid tumours
- Vasculitis

2. Autoimmune

- Still's disease
- SLE

3. Nosocomial FUO

- drugs – reaction, immunosuppression, superinfection
- vascular access sites & foreign bodies
- transfusions
- thrombophlebitis
- pulmonary embolism

4. Neutropenic FUO

5. HIV-associated FUO

Q2. A. (2012 Q2a 2007 Q2a)

B. Describe the 4 features that distinguish an enlarged spleen from the left kidney. (5 marks)

1. bimanual palpation for kidney; spleen is anterior
2. subcostal gap absent for spleen
3. percussion dull for spleen
4. notches for spleens > 10cm

Q3. Name 3 signs that are related to COPD and can be detected by inspection. (10 marks) (2007 Q3 2006

Q5)

1. Expiratory wheeze

2. chronic cough

3. tachypnea/ cyanosis/ elevated Jugular Venous Pulse/ peripheral edema

Q4. List the steps you will take to measure blood pressure accurately using a mercury sphygmomanometer. (10 marks)

1. the pressure inside the cuff is pumped up above the patient's systolic blood pressure
2. listen to the Korotkoff sounds at the brachial artery using a stethoscope
3. the 1st Korotkoff sound is the snapping sound first heart at the systolic pressure

Clear tapping, repetitive sounds for at least 2 consecutive beats is considered the systolic BP

4. the 4th Korotkoff sound is ~10mmHg above the diastolic BP, and is described as muting

The diastolic BP is usually taken at which the 4th Korotkoff sound is barely audible

5. the 5th Korotkoff sound is silent as the cuff pressure drops below the diastolic BP. The disappearance of sound is considered diastolic BP ~2mmHg below the last sound heard.

There is a move towards using the 5th Korotkoff sound as the diastolic BP as it is more reproducible

Q5. (2007 Q5 2006 Q4)

A. Define seizure. (3 marks)

Complex partial seizure: patient not responsive; seem to stare into space

Generalized seizure: sudden staring with impaired consciousness, lasting for seconds

B. Name 2 causes of seizure. (2 marks)

Abnormal level of Na/ glucose/ brain infection

C. Define epilepsy. (3 marks)

Recurrent unprovoked seizures

D. Name 2 causes of epilepsy. (2 marks)

Brain tumours/ stroke/ neurodegenerative process/ CNS infection/ head trauma/ metabolic disturbance/ substance abuse/ drug withdrawal

Q6. A. Name 4 typical symptoms of intestinal obstruction. (4 marks) (2007 Q6a 2006 Q3a)

B. Name 2 radiological features of intestinal obstruction on abdominal x-ray. (3 marks)

C. What is the commonest cause of small bowel obstruction? (1.5 marks)

D. What is the commonest cause of large bowel obstruction? (1.5 marks)

Q7. (2007 Q7 2006 Q9)

A. Write 4 important principles for examination of the back. (4 marks)

B. Name 3 symptoms and signs of acute lower limb ischemia. (3 marks) (2007 Q7b 2006 Q9b)

Pain

Perishing cold

Pallor

Pulselessness

Paraesthesia

Paralysis

C. Name 3 anatomical constituents of spine. (3 marks)

Q8. Regarding complete blood picture

A. Name the 3 components that we mainly study in complete blood picture (CBP). (6 marks)

B. Name 1 disease or condition that will cause abnormality of each component mentioned in question (a). (4 marks)

1. Mean Cell Volume

iron deficiency anaemia/ thalassaemia: microcytic

haemolysis/ renal failure: normocytic

megaloblastic anaemia/ liver disease: macrocytic

2. HGB

iron deficiency anaemia: low

3. WBC

infection: high

4. platelet count

low: spleen disorder/ sepsis

Q9. A 50 years old gentleman suffered from Hepato-Cellular-Carcinoma (HCC).

A. Name 3 clinical signs of liver disease that you would look for on general examination of such patient. (3 marks)

1. jaundice
2. flapping tremor
3. fetor hepaticus

B. Name 3 clinical signs would you look for on abdominal examination. (3 marks)

1. striae
2. dilated veins
3. pigmentation
4. enlarged liver

C. Name 4 investigations that would be helpful to diagnose HCC. (4 marks)

1. LFT: (++) ALP+ GGT/ (++) AFP (marker)
2. imaging: Computed Tomography/ Magnetic Resonance Imaging
3. liver biopsy

Q10. A 60 years old man vomited FRESH blood.

A. Name 4 possible SITES of bleeding (2 marks)

1. oesophagus
2. stomach
3. duodenum
4. small bowel tumor/ GIST/ ulcers

B. Name 3 useful INVESTIGATIONS for Hematemesis (3 marks)

1. Blood test: CBP, LRFT, clotting profile, type & screen, ABG
2. Chest X-ray
3. OGD

C. What is the COMMONEST cell type of Gastric Cancer in HK? (2 marks)

adenocarcinoma

D. Name 3 TREATMENT OPTIONS for Carcinoma of Oesophagus (3 marks)

1. surgery
2. radiation therapy
3. chemotherapy

2006

Q1. List 5 different diseases and the corresponding clinical features on physical examination. (10 marks)

1. left sided heart failure
poor tissue oxygenation: pulmonary congestion/ orthopnoea/ tachycardia/ cyanosis
2. right sided heart failure
peripheral oedema/ ascites/ enlarged liver & spleen/ distended jugular veins
3. hyper-thyroidism
severe progressive exophthalmos
4. hypo-thyroidism
coarse features/ thick lips/ dry skin/ puffy eyelids/ coarse hair/ megaloglossia
5. patent ductus arteriosus
cyanosis/ left parasternal heave/ collapsing pulse

Q2. (2012 Q2 2008 Q4 2006 Q2)

Q3. Briefly describe the function of each part. (5 marks)

- A. Spinal cord: **transmit of neural signals between the brain and the rest of the body**
- B. Cerebellum: **receive information from the sensory systems, the spinal cord, and other parts of the brain and then regulate motor movements**
- C. Cerebrum: **associate with higher brain function such as thought and action**
- D. Cauda equine: **communicate sensory and motor nerve messages between CNS and organs from the pelvis to the lower limbs**
- E. Brainstem: **control reflex tracking movements of the head, neck and eyes based on stimuli received from the eyes and ears.**

Q4. (2007 Q5 2006 Q4)

Q5. (2007 Q3 2006 Q5)

Q6. A. Give 3 symptoms suggestive of intestinal obstruction. (3 marks)

1. Colicky abdominal pain
2. Abdominal distension
3. Constipation
4. Vomiting

B. What are the physical findings in patient with intestinal obstruction? (5 marks)

1. Dehydration
2. Distended abdomen
3. Visible bowel loops
4. Hernia
5. Hyperactive bowel sounds

C. Give 2 physical signs suggestive of strangulation of bowel. (2 marks)

Constant abdominal pain/ fever/ shock/ peritoneal signs/ leukocytosis/ Metabolic acidosis/ impaired liver functions

Q7. A. In general principle, describe how investigations help treatment of surgical patients. (8 marks)

1. aid/ confirm diagnosis

2. plan for treatment options
3. assess progress of disease & response to treatment
4. only be done if: degree of suspicion high/ consequence of missing diagnosis serious
5. Laboratory
 - disease process represented by change in blood & other body fluid components
6. Radiology
 - imaging of various organs
7. Endoscopy
 - instrument to visualize & examine inside of luminal structure
8. Cytology/Histopathology
 - examination of body tissue to see change at macroscopic or microscopic level

B. Name 2 blood tests that will help to find out adverse effects of herbal medication. (2 marks)

1. LFT
2. CBP: Clotting profile

Q8. A. How to classify pain medications?

- B. What are the respiratory complications of pain? (3 marks)
- C. Name 5 methods to deliver medication for pain? (5 marks)

Q9. A. Write 3 important points that you would look for on inspection of back. (3 marks) (2007 Q7a 2006 Q9a)

- B. **What would you look for during physical examination, if the patient complains of lower limb pain? (5 marks) (2007 Q7b 2006 Q9b)**
- C. Apart from sudden onset of lower limb weakness, give 2 signs of acute cord compression. (2 marks)

Q10. An 80 years old man presented with passing large amount of fresh melena.

- A. Name 4 possible SITES of bleeding. (2 marks)
- B. **Name 4 useful INVESTIGATIONS of melena. (4 marks)**
1. Blood tests (Complete Blood Profile, LRFT)
 2. Chest X-ray
 3. OGD
- C. **What is the COMMONEST cell type of oesophageal cancer in HK? (1 mark)**
- Squamous cell carcinoma (upper 2/3)
- D. **Name 3 TREATMENT OPTIONS for carcinoma of stomach. (3 marks)**
1. surgery
 2. chemotherapy
 3. radiation therapy

2015

1. (2 each?)

- a. cANCA pANCA full name
- b. the antigen they aim at
- c. the disease related

cANCA

cytoplasmic antineutrophil cytoplasmic antibodies
proteinase III
Wegener's granulomatosis
microscopic polyarteritis, Churg-Strauss syndrome, pauci-immune glomerulonephritis

pANCA:

perinuclear antineutrophil cytoplasmic antibodies
myeloperoxidase, others

- d. urine tests
- e. how many blood samples needed for patient with sepsis

2. breath sounds x4

normal: faint, low-pitched rushing sound with a gentle beginning and end during inspiration

wheeze: prolonged uninterrupted noise associate with turbulent flow in the bronchi

crepitation: discontinuous crackling or bubbling

3. nosocomial FUO predisposing factor x5

4. a. finger clubbing: 4 stages

- b. : 6 causes

5. case: abdomen distension after surgery: **adhesive obstruction**

- b. symptoms

- c. imaging

- d. complications

6. case: right upper quadrant pain: **cholangitis**

- b. cause

c. what other blood tests needed apart from CBC and LFT

Endoscopic Retrograde CholangioPancreatography (name only)

- d. interventional method (?)

7.

a. simple blood tests for anaemia

Complete Blood Picture

b. what are the info given by the above tests

- 1. red cell indices
- 2. white cells and platelets

3. reticulocyte count
4. peripheral blood smear

8. intermittent claudication

a. how to clarify the site with non-invasive methods

arterial duplex ultrasound

b. how to clarify the site with invasive methods

intra-arterial digital subtracted angiogram

CT angiogram

MR angiogram

9. T/F

- a. digoxin subscribed to patients with atrial fibrillation with HT
- b. patients with mechanical heart valves do no need lifelong warfarin
- c. HT patients should take in <6g salt in their diet as non-pharmacological treatment
- d. renal stenosis (?) is a type of secondary HT

10.

a. definition of vertigo

sensation of spinning of the environment

b. causes of syncope

1. cardiac

arrhythmias: AV block, SA block, paroxysmal tachycardia

(-) CO: outflow/ inflow obstruction, cardiomyopathy

2. hypotension

drugs: diuretics, antihypertensive drugs, nitrates

dysautonomia: primary autonomic dysfunction, secondary to autonomic neuropathies

3. cerebrovascular ischemia

extensive occlusive disease in the carotid and vertebrobasilar system

4. hypovolemia

dehydration, blood loss

5. metabolic disorders

hypoglycaemia, anoxia, hyperventilation-induced alkalosis

6. vasovagal

7. situational

c. differences between the clinical features of syncope and epilepsy

features	Syncope	Seizure
Relation to posture	Common	No
Precipitating factors	Emotion, pain, crowds, specific situations	Sleep loss, alcohol, drugs
Skin colour	Pallor	Normal/ cyanosis
Aura/ premonitory symptoms	Longer duration	Brief
Convulsion	Rare	Common with convulsive seizures

Urinary incontinence	Rare	Common
Post-event confusion	Rare	Common
Focal neurological signs	No	Occasional

d. why does syncope cause loss of consciousness

failure of cerebral perfusion with reduction in cerebral oxygen availability

young: hyperventilation/ vasovagal

old: cardiovascular/ cerebral vascular