



ABDOMINAL PAIN



—BELMATT—
HEALTHCARE TRAINING

PRECOURSE WORKBOOK

GASTROINTESTINAL DISORDERS SESSION

SESSION: GASTROINTESTINAL DISORDERS

This session aims to develop your skills in assessing and managing abdominal pain in primary care settings.

OBJECTIVES

This session aims to develop your skills in :

- Understand how the GI system works
- Develop clinical decision-making and management skills in identifying red flags in abdominal pain
- Recognise symptoms of common abdominal complaints and disorders
- Identification of red flags
- Use of case based scenarios to understand common pathologies in abdominal pain

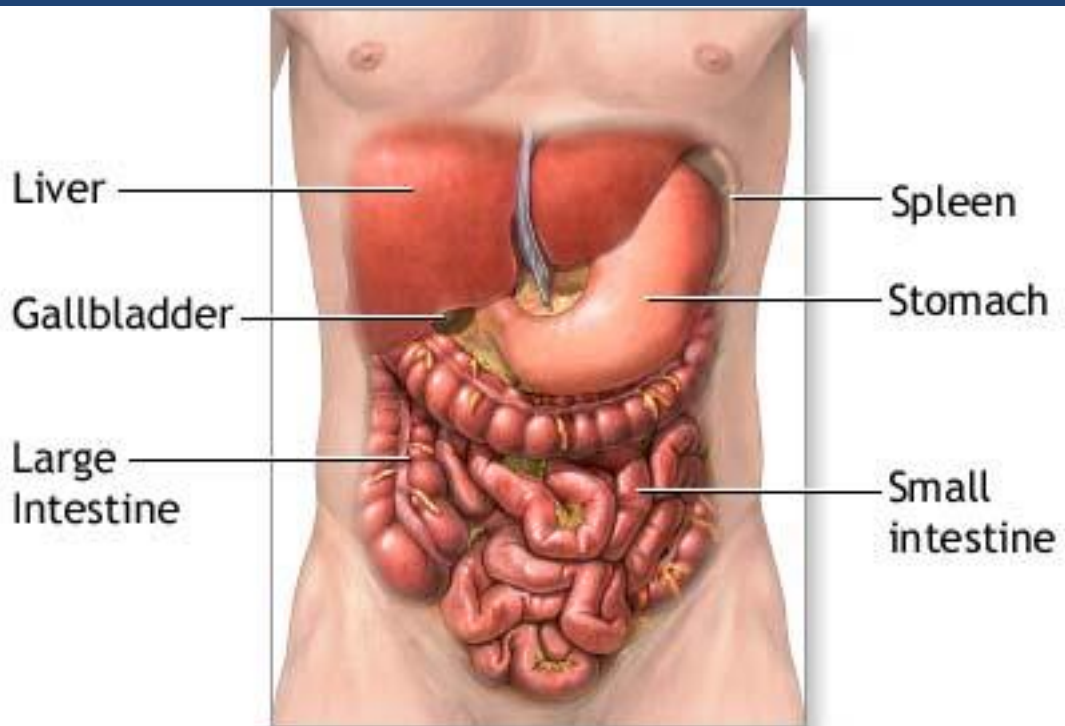
RECOMMENDED READINGS

Kapuri, L. (2014) Chronic Abdominal Pain: An Evidence-Based, Comprehensive Guide to Clinical Management Springer; 2015 edition (15 Dec. 2014)

ISBN-10: 1493919911 ISBN-13: 978-1493919918

McNamara R, Dean AJ. Approach to Acute Abdominal Pain. In: Mills AM, Dean AJ. Emergency Medicine Clinics of North America. 29. Elsevier; 2011:159-173.





What is borborygmi?

What is the significance of dullness when percussing the abdomen.

When do you test for shifting dullness?

GASTRO-INTESTINAL

Presenting Complaint (PC)

HPC

The following questions should be asked for each symptom the patient is experiencing.

Onset – when did the symptom start? / was the onset acute or gradual?

Duration – minutes / hours / days / weeks / months / years

Severity – e.g. if symptom is weight loss – how much weight loss?

Course – is the symptom worsening, improving, or continuing to fluctuate?

Intermittent or continuous? – is the symptom always present or does it come and go?

Precipitating factors – are there any obvious triggers for the symptom?

Relieving factors – does anything appear to improve the symptoms e.g. increasing dietary intake

Associated features – are there other symptoms that appear associated (e.g. fever/malaise)

Previous episodes – has the patient experienced this symptom previously?

Key GI Symptoms

1. Dysphagia / odynophagia – solids vs liquids
2. Nausea / vomiting – triggers/ colour of vomit / haematemesis
3. Reduced appetite / weight loss
4. Gastroesophageal reflux
5. Abdominal pain – SOCRATES
6. Abdominal distension
7. Altered bowel habit – constipation / diarrhoea / fresh blood / malaena
8. Systemic symptoms – jaundice / fever / malaise / fatigue



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Pain

If pain is a symptom, clarify the details of the pain using SOCRATES

- Site – where is the pain
- Onset – when did it start? / sudden vs gradual?
- Character – sharp / dull ache / burning
- Radiation – does the pain move anywhere else?
- Associations – other symptoms associated with the pain
- Time course – worsening / improving / fluctuating / time of day dependent
- Exacerbating / Relieving factors – does anything make the pain worse or better?
- Severity – on a scale of 0-10, how severe is the pain?

Upper Gastrointestinal Tract Symptoms

Mouth – Pain / Ulcers / Growths

Dysphagia – Onset / Progression / Solids and/or liquids

Odynophagia – pain on swallowing – oesophageal candidiasis

Progressive dysphagia (difficulty swallowing solids at first, then eventually difficulty with liquids) suggests the presence of a malignant stricture. Especially in elderly patients with associated weight loss and iron deficiency anaemia.

Nausea and Vomiting

Frequency and volume – high frequency and volume increases risk of dehydration

Projectile vomiting – obstruction

What does the vomit look like?

- Undigested food – pharyngeal pouch / achalasia / oesophageal stricture
- Non-bilious vomit – pyloric obstruction (i.e. pyloric stenosis)
- Bilious vomit/ faecal matter – lower GI obstruction (i.e. severe constipation)



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Haematemesis

Colour:

- Fresh red blood – undigested – acute bleed – Mallory Weiss tear / oesophageal variceal rupture
 - Coffee ground – digested – bleeding peptic/ duodenal ulcer
- Preceded by forceful retching? – Mallory Weiss tear

Anorexia/Weight Loss

How much weight over how long? – always suspect malignancy – especially in the elderly
Decreased appetite – may suggest malignancy, or in younger patients possibly anorexia nervosa

Abdominal Pain

Is pain localised to a specific area of the abdomen?

- Right iliac fossa – appendicitis / Crohn's disease
- Left iliac fossa – diverticulitis
- Epigastric – gastritis/oesophagitis
- Right upper quadrant – cholecystitis/hepatitis
- Flank – pyelonephritis
- Suprapubic – cystitis

Is the pain intermittent or continuous?

- Intermittent – e.g. renal colic/biliary colic/bowel obstruction
- Continuous – e.g. cystitis/peritonitis

Use SOCRATES to gain more details about the pain.



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Bloating

Common causes of abdominal distension:

- Fat – obesity
- Flatus – paralytic ileus/obstruction
- Faeces – constipation
- Fluid – ascites
- Fetus – pregnancy

Diarrhoea

- Consistency – how formed is it? (Bristol stool chart)
- Mucous – Inflammatory bowel disease (IBD) / Irritable bowel syndrome (IBS)
- Blood – Fresh red blood (anal fissure/haemorrhoids/IBD). Melaena (upper gastrointestinal bleed)
- Urgency– IBD/IBS/gastroenteritis
- Recent antibiotics? – C. Difficile
- Recent suspect food? – food poisoning
- Laxative use?

Constipation

Duration of constipation

Absolute constipation? – not passing flatus – obstruction

Colour of the stool

Black (Melaena) – peptic ulcer / duodenal ulcer / malignancy

Fresh red blood – anal fissure / haemorrhoids / IBD / polyp / lower GI malignancy

Pale (steatorrhoea) – biliary obstruction (gallstones / malignancy)



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Jaundice

Yellowing of the skin and sclera +/- dark urine

Causes of Jaundice:

- Infectious – hepatitis B and C / malaria
- Malignancy – pancreatic cancer / cholangiocarcinoma
- Alcoholic liver disease
- Autoimmune – autoimmune hepatitis / primary sclerosing cholangitis
- Congenital – Gilbert's syndrome (benign)

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PRE MEDICAL HISTORY

Gastrointestinal disease – inflammatory bowel disease (IBD) / irritable bowel syndrome / malignancy / gastroesophageal reflux (GORD)

Other medical conditions

Surgical history – e.g. appendectomy / colectomy / c-section

Any recent hospital admissions? – when and why?

Medication

Gastrointestinal medications:

- Laxatives
- Loperamide
- Proton pump inhibitors
- H2 receptor antagonists
- Sodium alginate/calcium carbonate e.g. Gaviscon

Regular medications – NSAIDS / Steroids / Bisphosphonates – (Gastroduodenal erosions)

Over the counter drugs – NSAIDS / laxatives

Contraception? – consider gynaecological causes of abdominal pain – ectopic pregnancy / miscarriage

Medication

Always check allergies



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SOCIAL AND FAMILY HISTORY

Consider allergies to medication, environment and foods.

Family History

Gastrointestinal disease – malignancy / IBD / GORD

Hereditary bowel conditions – HNPCC / FAP

Other significant medical conditions

Social History

Smoking – How many cigarettes a day? How many years have they smoked for?

Alcohol – How many units a week? – be specific about type / volume / strength of alcohol

Recreational drug use – IV drug use is a risk factor for hepatitis

Sexual history – important if considering blood-borne viruses – e.g. hepatitis

Diet:

- Lack of fibre – constipation
- Gluten – coeliac disease
- Fatty foods – may be associated with upper abdominal pain – cholecystitis

Living situation:

- House / flat – stairs / adaptations
- Who lives with the patient? – important when considering discharging home from the hospital
- Any carer input? – what level of care do they receive?

Activities of daily living:

- Is the patient independent and able to fully care for themselves?
- Can they manage self-hygiene/housework/food shopping?
- Is the illness interfering with the patient's ability to do the above?

Occupation

Travel History

Local food? – e.g. salmonella poisoning

Insect bites? – malaria

Contact with dirty water? – campylobacter / shigella / giardia



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SYSTEMS OVERVIEW

Cardiovascular – Chest pain / Palpitations / Dyspnoea / Syncope / Orthopnoea / Peripheral oedema

Respiratory – Dyspnoea / Cough / Sputum / Wheeze / Haemoptysis / Chest pain

GI – Appetite / Nausea / Vomiting / Indigestion / Dysphagia / Weight loss / Abdominal pain / Bowel habit

Urinary – Volume of urine passed / Frequency / Dysuria / Urgency / Incontinence

CNS – Vision / Headache / Motor or sensory disturbance/ Loss of consciousness / Confusion

Musculoskeletal – Bone and joint pain / Muscular pain

Dermatology – Rashes / Skin breaks / Ulcers / Lesions



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CASE STUDY 1

A 54 yr. old man attends complaining of an episode of haematemesis. He has a history of Atrial Fibrillation but has been asymptomatic and is otherwise well. He takes a low dose of warfarin, has no allergies. He used to drink alcohol in large quantities which had contributed to his incarceration in prison 6 months ago.

What are the most common causes of haemetemesis?

Why is taking a thorough drug history particularly important in this case?

What is an endoscopy and why would it be useful in managing upper GI bleeding?

Describe the features that would lead you to diagnose a peptic ulcer?

What is the most likely cause of a duodenal ulcer and how would this knowledge affect treatment?

What other differential diagnoses would you consider?



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CASE STUDY 2

A 27yr old male presents with a 3week history of worsening diarrhoea. At first, he thought it was because of something he had eaten. Prison food is not the most appetizing. However, instead of improving the diarrhoea has got worse. He has also noted blood in his stools which has worried him He otherwise feels quite well and has no significant past medical history.

What other history would you take?

Name 3 conditions at the top of your differential diagnoses.

1. _____
2. _____
3. _____

If this was an infectious episode, which organisms would be the most likely culprits.

His stool sample shows has not grown any pathogenic organisms. The diarrhoea has not improved. The gastroenterologist performs rigid sigmoidoscopy which shows an inflamed, bleeding, friable rectal mucosa. He suspects ulcerative colitis and takes multiple rectal biopsies.

What microscopic appearances would you expect in the rectal biopsy if this was indeed ulcerative colitis?

Why do you think it is important to take biopsies from multiple points around the colon?

If diagnosed confirmed as ulcerative colitis. How should this patient be followed up in the future?

References

Carton,J. ;Daly, R & P. Ramani (2007)Clinical Pathology. Chapter 24 p541-78. New York:Oxford University Press



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CASE STUDY 3

Patient is a thin white male. His weight at this visit is 125 pounds., blood pressure is 110/67mmHg supine and 105/60mmHg standing, heart rate is 68/min supine and 72/min standing, conjunctiva are without pallor, mucus membranes are moist. There are no oral lesions. Neck is without bruits or thyromegaly. Lungs are clear to auscultation and percussion. Heart is regular without murmurs rubs or gallops. Abdomen is soft, non-distended with normoactive bowel sounds. There is epigastric tenderness to palpation without rebound or guarding. Murphy's sign is positive. Stool is dark brown and tests guaiac negative for occult blood. Deep tendon reflexes are 2+ and equal. Skin is without lesions.

What laboratory tests would you like to order?

What are this patient's risk factors for the development of cholelithiasis?

What imaging study would you like to perform?

Your patient undergoes elective laparoscopic cholecystectomy without complications. His biliary symptoms do not recur.

He returns to the office two years later, , again with complaints of abdominal pain. Now her pain is intermittent and accompanied by bouts of diarrhoea. Between bouts of pain with diarrhea (which predominate) he is constipated with small hard stools. He describes the pain as crampy without localization. He has not lost or gained weight but constantly feels bloated. Dairy products and caffeine exacerbate his diarrheal symptoms. No known sexual history as he has been in prison for 3 years now.

What is the most likely diagnosis?

He is mildly anxious but in no acute distress and is non-ill appearing. His weight is 132 pounds, blood pressure is normal, he is not tachycardic, and he is afebrile. His physical examination, including abdominal and rectal examinations are unremarkable; stool is negative.

What further evaluation do you recommend?



CASE STUDY 3

CONTINUED

What further evaluation do you recommend?

Colonoscopy reveals two sigmoid polyps which are benign—follow up colonoscopy is recommended in three years. You discuss in detail dietary interventions for IBS such as keeping a food diary to discover any associations of symptoms with specific dietary intake. You recommend increased fiber intake for her diarrheal-predominant symptoms. You explore with her methods of easing her anxiety. Your patient wonders if there is any medication that may help.

What is the most appropriate initial treatment for irritable bowel syndrome?

What additional historical information might be helpful in your management of this patient?

Once again, underlying psychosocial stressors should be carefully explored by a thorough and compassionate patient history. For example, an unexpectedly high percentage of patients with irritable bowel syndrome were molested as children. Counseling and antidepressant medication may be indicated.

After a long discussion about his recurrent abdominal pain your patient confides that, in addition to the stress of his relationship with his daughter, he is very concerned about developing colon cancer. H states he stood helplessly by as his mother suffered and eventually succumbed to the disease.

What is the most appropriate advice to offer this patient?

What are the current screening (remember that we're talking about asymptomatic individuals with no worrisome clinical findings) guidelines for patients with a first degree relative with colon carcinoma



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CASE STUDY 4

A 27-year-old previously fit and healthy non-smoking man presented with a 6-week history of abdominal pain, nausea, vomiting, weight loss and recent onset of a fever, which he attributed to the consumption of a chicken kebab. There was no other relevant history of familial conditions or trauma. Initial clinical examination was unremarkable. He had leukocytosis and raised inflammatory markers. Despite no positive blood or stool culture diagnosis, he was given intravenous antibiotic and rehydration treatment. However, no significant clinical improvement was observed and, on abdominal examination, a pulsatile mass was felt. A CT scan of the abdomen was performed after intravenous and oral contrast

What is your diagnosis?

CASE STUDY 5

A 74 year old man comes to you complaining of haemetemesis . His wife tells you he otherwise well except for an irregular heart.

- What are the most common causes of haemetemesis?
- Why is taking a thorough drug history particularly important in this case? How would you ensure you get all the relevant history from this man – e.g. would you use a mnemonic and what would this be? What would you include in your review of systems.
- What would be the investigations for this man?
- Describe your differentials and rationales for these.
- Describe the features that would lead you to suspect two differentials

Give the treatment plan for two of your differentials including longer term care and management.



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CASE STUDY 6

A 27 year old female presents to you with a 3 week history of worsening diarrhoea. At first, she thought she had eaten a dodgy take-away and was suffering with food poisoning -now she thinks it is something worse. She has also noted blood in the stools which is worrying her – however she is otherwise well and has no significant past medical history or family history.

How can you ensure your history taking is systematic?

Name your top 3 differentials and give a rationale for these.

If this was an infectious episode which organisms would be the most likely culprits?

Her stool sample did not grow any pathogenic organisms. The diarrhoea has improved but a recent rigid sigmoidoscopy shows an inflamed bleeding and friable rectal mucosa. What might this indicate?

What might the management be?

Why should the gastroenterologist take multiple biopsies?

What is her long term prognosis?



QUIZ

A 45-year-old man comes to the surgery with family members looking very drowsy and barely responsive. An ambulance is called, and he is sent to the emergency department by which stage he becomes unresponsive with fixed dilated pupils. His breath has a fruity odour. BP: 96/52 P130 RR22.

Physical examination shows the liver edge is palpable 4cm below the rib border. Laboratory data reveals a metabolic acidosis with a high anion gap and normal glucose levels. Which of the following is the most likely diagnosis in this patient?

- a. Diabetic ketoacidosis
- b. Opioid withdrawal
- c. Uraemia
- d. Alcoholic ketoacidosis
- e. Hypothermia

A 38-year-old man attends the surgery because he received electric shocks while working on the powerlines. He is taken to the emergency department and subsequently goes in to ventricular fibrillation. He is shocked back into sinus rhythm. He is now unconscious and monitored. He is able to breath on his own. Examination shows a full thickness burn to his right wrist and a 2cm burn to the dorsum of his rt foot.

Which of the following is the most likely complication that needs to be prevented in this patient's condition?

- a. Acute kidney injury
- b. Acute MI
- c. Acute respiratory distress syndrome
- d. Haemothorax
- e. Tension pneumothorax



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DIARRHOEA AND VOMITING

James presents with a low-grade fever and complaining of fatigue and nausea for the past 24hrs. He also describes his urine as being dark and states that he has had four bowel movements in the past 24hrs, all of which were light coloured. Upon further questioning, James states he has no history of jaundice and that he returned from a business trip to the Philippines' a month ago.

a. What is the likely diagnosis?

b. Discuss why the urine was dark and stools light coloured?

c. What would your treatment options be in this case?

25yr old male pt informs you she has had diarrhoea, nausea and cramping for almost 12hrs now. He also presents with low grade fever and informs you as far as she can tell the symptoms developed very suddenly. Stool is negative for occult blood. He informs you that some his cell mates have also had similar symptoms since a fish meal they ate a few days ago.

a. What is the likely diagnosis?

b. How is it spread?

c. How would you treat?



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DIARRHOEA AND VOMITING

35yr old male has just returned from Latin America following 2 day business trip. Reports having eaten several meals of fish bought from street vendors around the hotel. Feels ill with profuse watery diarrhoea and vomiting.

a. What is the likely diagnosis?

b. How is it spread?

c. What tests would you do to confirm diagnosis?

d. How would you treat?



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GENITOURINARY QUIZ

25-year-old man comes to the surgery because of severe leg cramps. He says that he has "dark urine" and that earlier in the morning he had trouble lifting a glass object. Physical examination shows tenderness in his hamstrings and quadriceps when palpated. Urine dipstick is positive for blood. Which of the following is most likely a potential complication of this patient's condition?

- a. Acute Myocardial Infarction
- b. Acute kidney injury
- c. Haemothorax
- d. Acute respiratory distress syndrome
- e. Tension pneumothorax

A 48-year-old woman comes to the emergency department because of 'burning, bloody urine'. She has been urinating more frequently for the past 2 days, but she denies polydipsia, vaginal discharge, back pain, abdominal pain, nausea, vomiting, or fevers. Physical examination shows that she is afebrile and her other vital signs are stable. Her abdomen is soft, non-tender and there is no flank tenderness. Urine dipstick is positive for leucocyte and nitrites.

Which of the following is the most appropriate initial treatment option?

- a. Doxycycline
- b. amoxycillin
- c. Nitrofurantoin
- d. Trimethoprim
- e. Cephalexin

A 62-year-old woman comes to the surgery because of intermittent flank pain for 2 days. Describes the pain as cramping and says that is worse after drinking fluids. Medical history includes recurrent recurrent urinary tract infections. Temperature is 36.8°C (98°F), Pulse 82, RR16, BP 120/82. Abdominal exam reveals a possible left-sided flank mass. Urine dipstick is negative for leucocytes.

Which of the following is the most likely diagnosis?

- a. Pyelonephritis
- b. Renal cell carcinoma
- c. Polycystic kidney disease
- d. Ureteropelvic junction obstruction
- e. Bladder calculi



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GENITOURINARY QUIZ

A 27-year-old man comes to the surgery because of severe flank pain for an hour. The pain woke him from his sleep, He rates the pain as a 10 on a 10-point scale. Temperature is 36.7°. He appears to be constantly moving and unable to get comfortable. No medical problems. Had kidney stones about a year ago but since then he has been well.

What is the likely diagnosis?

- a. AAA Abdominal aortic aneurysm
- b. Appendicitis
- c. Ruptured bladder
- d. Small bowel obstruction
- e. Hydronephrosis

A 50-year-old woman comes to the surgery because of severe, colicky left-sided abdominal pain. Urinalysis shows trace of blood. Her T: 37.2° , P:70. RR18 and BP: 160/90 mm Hg. Her BMI is 23. Her medical history is significant for coeliac disease that was diagnosed 20 years ago. She avoids gluten and takes vitamins to "stay healthy". Which of the following is most likely present in this patient?

- a. Osteomalacia
- b. Vitamin D excess
- c. Vitamin D deficiency
- d. Vitamin C deficiency
- e. Hypophosphatemia

A 25-year-old previously healthy woman comes to the surgery because of 2 days of mild nausea and vomiting. She denies recent sick contacts or eating anything out of the ordinary. She has maintained good oral intake of food and fluids over the past two days but has noticed increasing malaise and a dull pain on her right side. She complains of mild dysuria and urinary frequency for the past 2 days. Medical history is negative for kidney stones T:38.3P:100 RR:18 BP: 11/70 Physical examination shows no definite CVA tenderness. Urine dipstick positive for leucocytes.

Which of the following is the most likely diagnosis?

- a. UTI
- b. Acute cystitis
- c. Kidney stones
- d. Appendicitis
- e. Pyelonephritis



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GIT QUIZ

1. A 65 year old lady had a urinary tract infection which was treated with broad spectrum antibiotics. A few days later she developed bloody diarrhoea and severe abdominal pain. She has a temperature of 38.6 C and a pulse rate of 90 beats/minute. Her blood tests show:

Haemoglobin 119 g/L

White blood cells 18 x 10⁹/L

CRP 180 mg/L

What is the SINGLE most likely management?

- A. Co-amoxiclav
- B. Piperacillin+tazobactam
- C. Ceftriaxone
- D. Vancomycin
- E. Amoxicillin

2. A 70 year old man presents with persistent dysphagia to both solids and liquids for a few months now. There is no associated weight loss. He does not have regurgitation after meals. His medical history includes osteoporosis which he takes alendronate once a week for the past 2 years. What is the SINGLE most likely diagnosis?

- A. Achalasia
- B. Oesophageal carcinoma
- C. Benign oesophageal stricture
- D. Barrett's Oesophagus
- E. Pharyngeal pouch

3. A 55 year old woman complains of retrosternal chest pain and difficulty swallowing which is intermittent and unpredictable. She says that food gets stuck in the middle of the chest and she has to clear it with a drink of water. She is then able to finish the meal without any further problem. A barium meal shows a 'corkscre patterned oesophagus'. What is the SINGLE most likely cause of the dysphagea?

- A. Oesophageal candidiasis
- B. Oesophageal carcinoma
- C. Oesophageal spasm
- D. Pharyngeal pouch
- E. Plummer-Vinson syndrome



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GIT QUIZ

4. A 33 year old lady who has been traveling around Europe for a few months now returns to the United Kingdom with lethargy, abdominal pain, loose watery diarrhoea and bloating. She has lost a few kilograms since coming back from the trip. Her physical examination remains unremarkable with abdominal examination having mild generalised tenderness. What is the SINGLE most likely organism causing her symptoms?

- A. Campylobacter jejuni
- B. Salmonella enterica
- C. Shigella dysentery
- D. Staphylococcus aureus
- E. Giardia lamblia

5. A 52 year old man who underwent a partial gastrectomy 10 months ago presents with increasing fatigue. A yellow tinge is noted on his skin and he has a red sore tongue. What is the SINGLE most likely diagnosis?

- A. B12 deficiency
- B. Cancer of the colon
- C. Alcoholism
- D. Coeliac disease
- E. Crohn's disease

6. A 35 year old male presents to his GP with the complaint of diarrhoea. He complains that he has been having recurrent, chronic diarrhoea for the past 5 months now. He claims to not have noticed any discernible pattern. He does not smoke and is a teetotaler. Upon examination, the patient's clothing appears to be ill-fitting. A blood test was subsequently done and revealed the following:

Haemoglobin 118 g/L (130-180 g/L)

Mean cell volume (MCV) 106 fL (76-96 fL)

A peripheral blood film is significant for a diamorphic picture of red cells.

Following the results of the blood tests, the patient was booked for an endoscopy. A few tissue samples were taken during the endoscopy and sent for histology evaluation. What is the SINGLE most likely pathology to be seen on histology?

- A. Caseating granulomas
- B. Lymphocytic infiltration of the submucosa
- C. Focal infiltration of basophils
- D. Cyst formation
- E. Villous atrophy



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GIT QUIZ

7. A 50 year old man comes to A&E with abdominal pain that began suddenly about 1 hour ago. The pain is now generalized, constant, and extremely severe. He lies motionless on the stretcher, is diaphoretic, and has shallow, rapid breathing. His abdomen is rigid, very tender to deep palpation, and has guarding. X-rays show free air under the diaphragm. What is the SINGLE most likely diagnosis?

- A. Biliary peritonitis
- B. Ischaemic colon
- C. Pancreatic necrosis
- D. Pulmonary embolism
- E. Perforated peptic ulcer

8. 42 year old obese woman presents to the emergency department with a 12 hour history of severe epigastric pain. The pain started suddenly and radiates to her back. It is relieved when sitting forward. She is nauseous and has vomited twice since the pains started. She drinks one and a half glasses of wine per day. She has no significant past medical history. She has a pulse rate of 110 beats/minute and is tender in the epigastric region. What is the SINGLE most appropriate investigation?

- A. Chest X-ray
- B. Abdominal ultrasound
- C. Serum lipase
- D. Abdominal X-ray
- E. Liver function test

9. A 54 year old woman, known case of pernicious anaemia refuses to take hydroxocobalamin intramuscularly as she is needle shy. She is asking for medication. What is the SINGLE best reason that describes why oral medications will not be effective?

- A. Intrinsic factor deficiency
- B. Increased gastric acidity
- C. Lack of gastric acidity
- D. Irritated gastric mucosa
- E. Abundance of ileal binding sites



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GIT QUIZ

10. An 8 year old child presents with recurrent abdominal pain. He has three episodes of abdominal pain within the last 3 months and it is severe enough to affect his activity in school. The abdominal pain is intense and located periumbilically lasting for a few hours and is associated with nausea and episodic headaches. He maintains a good appetite and is an appropriate weight for his age. On examination, there were no significant findings. Full blood count, urea and electrolytes are found to be normal. What is the SINGLE most appropriate next step in management?

- A. Ultrasound abdomen
- B. Computed tomography abdomen
- C. Reassure
- D. Prescribe omeprazole
- E. Admit and administer intravenous fluids

11. A 46 year old woman presents with sudden episode of abdominal pain which started about 5 hours ago. The pain is located in the epigastrium and radiates to her back. She has vomited twice since the onset of attack. The pain is made worse by lying flat on her back and she is more comfortable sitting up and bending forwards. She was informed of the presence of gallstones in her gallbladder four weeks earlier when she reported pain in the right hypochondrium. Her temperature is 38.4 C, blood pressure is 120/85 mmHg, and pulse rate is 115 beats/minute. There is no presence of jaundice but there is marked tenderness in epigastrium. What is the SINGLE most appropriate investigation?

- A. Abdominal X-ray
- B. Serum amylase
- C. Serum bilirubin
- D. Barium swallow
- E. Urea and electrolytes



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GIT QUIZ

12. A 70 year old woman is reviewed following a course of oral clindamycin for a right lower limb cellulitis. She was initially admitted in the hospital for 3 days for the management of her cellulitis as she was unable to weight bear. She was discharged 2 days ago and quickly developed bloody diarrhoea and abdominal pain. She has a temperature of 38.8 C. Her blood tests show:

Haemoglobin 125 g/L

White blood cells 18 x 10⁹/L

CRP 160 mg/l

What is the SINGLE most likely management?

- A. Oral co-amoxiclav
- B. Intravenous piperacillin + tazobactam
- C. Intravenous ceftriaxone
- D. Oral metronidazole
- E. Intravenous amphotericin

13. A 26 year old young man presents to the GP surgery with a history of passing loose stools for the past 2 months. He says his stools contain a small amount of blood and mucous and are associated with abdominal pain. He has around 4 to 5 bowel movements a day. A colonoscopy was organised and performed which he was started on treatment. What is the SINGLE most appropriate treatment for his condition?

- A. Mesalazine
- B. Corticosteroids
- C. Mebeverine
- D. Cyclosporine
- E. Peppermint oil

14. A 33 year old female has intermittent diarrhoea and abdominal bloating which is usually exacerbated by consumption of wheat and eggs. She has been feeling more tired in the past few months. She has no significant weight loss. What is the SINGLE most likely diagnosis?

- A. Coeliac disease
- B. Ulcerative colitis
- C. Crohn's disease
- D. Gastroenteritis
- E. Malabsorption



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GIT QUIZ

15. A 42 year old female presents to her GP following a staging CT for her recently diagnosed renal cell carcinoma. On the CT scan, gallstones were noticed in the gallbladder. She has no history of abdominal pain or jaundice and is otherwise well. A left sided nephrectomy for her renal cell carcinoma has been scheduled. What is the SINGLE most appropriate course of action?

- A. Ultrasound abdomen
- B. ERCP (Endoscopic Retrograde Cholangiopancreatography)
- C. MRCP (Magnetic Resonance Cholangiopancreatography)
- D. Reassurance
- E. Laparoscopic cholecystectomy

16. A 48 year old female presents with tiredness and painless dysphagia. She complains of a feeling of something stuck in her throat. A full blood count shows microcytic, hypochromic anaemia. On examination, glossitis is noted. An oesophageal web is found at the post cricoid region. What is the SINGLE most likely diagnosis?

- A. Coeliac disease
- B. Plummer-Vinson syndrome
- C. Pharyngeal carcinoma
- D. Barrett's oesophagus
- E. Oesophageal carcinoma

17. A 49 year old female presents with right hypochondrial pain. An ultrasound shows a large gallstone. Her BP is 120/85 mmHg; respiratory rate 18/min; Heart rate 90 bpm; Temperature 37.6 C; WBC 15 x 10⁹/L. What is the SINGLE most appropriate treatment?

- A. Laparoscopic cholecystectomy
- B. Reassure
- C. Low fat diet
- D. Ursodeoxycholic acid
- E. Emergency laparotomy



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GIT QUIZ

18. A 50 year old man has severe pain on defecation. On examination, a tender, reddishblue swelling is seen near the anal verge. What is the SINGLE most likely diagnosis?

- A. Perianal abscess
 - B. Perianal haematoma
 - C. Pilonidal cyst
 - D. Haemorrhoids
 - E. Anal fistula
- Perianal haematoma

19. A 58 year old man has been having frequent episodes of secretory diarrhea for the past 2 weeks. His diarrhoea is extremely watery with large amounts of mucus. A diagnosis of villous adenoma was made after performing an endoscopy. What is the SINGLE most likely electrolyte abnormality?

- A. Hyperkalemia
- B. Hypernatremia
- C. Hyponatremia
- D. Hypokalemia
- E. Hypercalcemia



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GIT QUIZ

20. A 39 year old woman is admitted with central abdominal pain radiating through to the back. She has vomited several times in the last 24 hours. She denies any diarrhoea. Bending forward helps alleviate the pain. On examination, there is epigastric tenderness associated with guarding. She has a blood pressure of 100/70 mmHg, a respiratory rate of 20 breaths/minute, a pulse rate of 106 beats/minute and a temperature of 37.9 C. Her blood test show:

Amylase 1335 U/mL (Elevated)

CRP 214 mg/L

White cell count (WCC) 19.6 x 10⁹/L

What is the SINGLE best step in management?

- A. Parenteral nutrition
- B. Fluid resuscitation, analgesia and nutritional support
- C. Urgent laparoscopy
- D. Intravenous antibiotics
- E. Cholecystectomy

21. A 38 year old man complains of “crushing” chest discomfort for 1 hour that started when he drank a cold drink. He has no significant medical history. ECG shows sinus rhythm. He is given sublingual nitroglycerin in the emergency room that improves his chest pain almost immediately. He has a pulse of 70 beats/minute, a blood pressure of 130/80 mmHg and a respiratory rate of 18 breaths/minute. Cardiac enzymes came back negative. What is the SINGLE most likely diagnosis?

- A. Myocardial infarction
- B. Pericarditis
- C. Oesophageal spasm
- D. Pulmonary embolism
- E. Pneumothorax



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