



PRES Level 2 Examination Sample Questions

1 A 55 year old man has diarrhoea and weight loss for 9 months. He has an intensely itchy red rash on his buttocks and thighs.

Investigations:

Haemoglobin 108 g/L (130–175)

Blood film: anisocytosis

Which is the most likely histological appearance on small bowel biopsy?

- A Hyperplasia of Brunner's glands
- B Increased intraepithelial macrophages
- C Increased lymphocytes in submucosa
- D Ulceration
- E Villous atrophy

2 A 26 year old woman is asking for strong pain relief for her abdominal pain and is seen in the Emergency Department. She has no significant past medical history. She looks malnourished. She is restless and irritable. Her temperature is 37.1°C.

Which non-prescribed substance is the most important to enquire about in this presentation?

- A Alcohol
- B Amphetamines
- C Cannabis
- D Cocaine
- E Heroin

3 A 74 year old man has painless jaundice and pale faeces for 1 week. He has lost 4 kg in weight in 3 months. His temperature is 37.4°C, pulse rate 90 bpm, BP 138/76 mmHg, respiratory rate 18 breaths per minute. His sclera and skin are yellow.

Chest and abdominal examinations are normal.

Which is the most appropriate investigation?

- A CT scan of abdomen
- B Endoscopic retrograde cholangio-pancreatography
- C MR cholangio-pancreatography
- D PET scan of abdomen
- E Ultrasound scan of the abdomen

4 A 26 year old woman has taken an overdose of paracetamol and is seen in the Emergency Department. She says the overdose was impulsive and now regrets taking the tablets.

Investigations:

Paracetamol level below treatment line for N-acetylcysteine.

Which is the most appropriate course of action?

- A Admit to psychiatric ward from the Emergency Department
- B Assessment by liaison psychiatry in Emergency Department
- C Discharge home with GP follow-up
- D Prescribe antidepressant medication
- E Refer for cognitive behavioural therapy (CBT)

5 A 75 year old woman has sudden onset left-sided chest pain and breathlessness for 1 hour. She also had one episode of haemoptysis. She had a total hip replacement for a fractured neck of femur 3 days ago and is on the orthopaedic ward. Her temperature is 37.2°C, pulse rate 100 bpm, BP 132/78 mmHg, respiratory rate 22 breaths per minute and oxygen saturation 92% breathing air.

Chest examination is normal.

Which is the most appropriate diagnostic investigation?

- A Arterial blood gases
- B Chest X-ray
- C CT pulmonary angiogram
- D D-dimer
- E ECG

6 A 48 year old man has moderate epigastric pain for 2 days and is seen at his GP surgery. He had a duodenal ulcer 6 months ago and was treated with *Helicobacter pylori* eradication therapy.

Which is the most appropriate test to confirm *Helicobacter pylori* eradication?

- A C13 urea breath test
- B Faecal *Helicobacter* antigen
- C Gastric aspirate urease test
- D *Helicobacter pylori* serology
- E Repeat endoscopy and biopsy

7 An 18 year old man has visual disturbance after he was punched in the face. He has double vision when he looks upwards. He has a left periorbital haematoma and enophthalmos.

Which is the most likely site of fracture?

- A Ethmoid
- B Frontal bone
- C Maxilla
- D Nasal bones
- E Sphenoid

8 An 18 year old woman has blurred vision for 24 hours and is seen in the Emergency Department. She has increased thirst and drinks 4 litres of water a day. She has lost 10 kg's in weight in 6 weeks. Her temperature is 37.2°C, pulse rate 100 bpm, BP 90/50 mmHg, respiratory rate 30 breaths per minute and oxygen saturation 98% breathing air.

Which is the most important initial investigation?

- A Arterial blood gases
- B Blood cultures
- C Capillary glucose
- D Full blood count
- E Serum electrolytes

9 A 78 year old man has low back pain for 6 weeks and is seen in his GP surgery. There is no history of trauma. He has not taken any analgesia for his pain. He takes no regular prescription medication. He has previously been treated for polymyalgia rheumatica. His BMI is 22 kg/m² and his temperature is 37.4 °C. There is bony tenderness over his lumbar spine. There is no radiation of pain.

Neurological examination is normal.

Investigations:

Haemoglobin	78 g/L	(130–175)
ESR	98 mm/hr	(<20)

Which is the most likely diagnosis?

- A Discitis
- B Mechanical back pain
- C Multiple myeloma
- D Osteoporotic wedge fracture
- E Recurrence of polymyalgia rheumatica

10 An 8 week old boy has worsening vomiting for 3 weeks. He is feeding well and is constantly hungry but is losing weight. He has wet nappies and no diarrhoea. His pulse rate is 110 bpm, respiratory rate 24 breaths per minute and oxygen saturation 98% breathing air.

Which is the most likely acid base state?

- A Metabolic acidosis
- B Metabolic alkalosis
- C Normal acid/base state
- D Respiratory acidosis
- E Respiratory alkalosis

11 A 27 year old woman has a small area of redness on her right breast for 4 weeks. A course of antibiotics, given 3 weeks ago, slightly improved the redness. She has had similar episodes before. She has a red superficial tender lump at the edge of her right areola and 0.5 mL of greenish fluid is aspirated.

Which is the most likely diagnosis?

- A Breast abscess
- B Breast cancer
- C Duct papilloma
- D Paget's disease
- E Periductal mastitis

12 A 93 year old woman is in hospital having completed treatment for a urinary tract infection. She has mild dementia. She lives alone. She is medically fit for discharge and is keen to go home but her daughter is unhappy about this course of action.

Which is the most appropriate next step?

- A Arrange for an assessment by an independent advocate
- B Assess patient's mental capacity to decide about her discharge
- C Contact local psychiatry team for assessment
- D Discharge to a nursing home
- E Keep in hospital until daughter agrees

13 A 30 year old man took an overdose of 45 paracetamol 500 mg tablets 10 hours ago and is seen in the Emergency Department. His GCS is 15/15. His temperature is 37.0°C, pulse rate 80 bpm, BP 120/70 mmHg, respiratory rate 15 breaths per minute and oxygen saturation 99% breathing air. Blood for paracetamol level has been taken.

Which is the most appropriate initial management?

- A Await paracetamol levels before further action
- B Gastric lavage
- C Give 50 g charcoal orally
- D No treatment required
- E Start N-acetylcysteine

14 A 6 year old girl has an itchy, red rash with yellow crusting on her face and neck. Her mother has tried non-prescription creams but the rash has continued to spread. She is otherwise well. Her temperature is 36.9°C. She has a yellow crusting on the sores around her mouth.

Which is the most likely diagnosis?

- A Chickenpox
- B Fungal infection
- C Impetigo
- D Measles
- E Psoriasis

15 A 59 year old man has a painless enlarging neck lump for 6 months. He has a firm, mobile swelling measuring 2 cm at the angle of his jaw. Cranial nerves are unaffected.

Which is the most likely diagnosis?

- A Ameloblastoma
- B Benign parotid tumour
- C Cystic hygroma
- D Lipoma
- E Tuberculous lymphadenitis

16 A 70 year old woman has lower abdominal pain for 5 days and is seen in the GP surgery. She feels unwell and has had episodes of shivering. Her temperature is 38.3°C, pulse rate 105 bpm, BP 115/65 mmHg, respiratory rate 24 breaths per minute and oxygen saturation 97% breathing air. There is a tender mass in the left iliac fossa.

Which is the most likely diagnosis?

- A Diverticular abscess
- B Incarcerated inguinal hernia
- C Sigmoid carcinoma
- D Tubo-ovarian abscess
- E Uterine fibroid

17 A 50 year old man wants to stop drinking alcohol and has been admitted to the inpatient ward for detoxification. He is alcohol dependant and his average alcohol intake is 84 units a week for 3 months. He has no other relevant medical history.

Which is the most appropriate initial drug to prescribe?

- A Chlordiazepoxide
- B Clomethiazole
- C Disulfiram
- D Fluoxetine
- E Propranolol

18 A 40 year old woman is found at home in a drowsy state and taken to the Emergency Department. She has had multiple Emergency Department admissions for severe and recurrent depression. Her pulse rate is 108 bpm. She is confused with dilated pupils, dry mucous membranes and a palpable bladder to the umbilicus.

Which medication is most likely responsible for her clinical findings?

- A Amitriptyline
- B Fluoxetine
- C Lithium
- D Phenelzine
- E Venlafaxine

19 A 14 year old girl has cyclical central abdominal pain for 2 years and is seen in the GP surgery. She has never menstruated. She is of normal stature and has secondary sexual characteristics appropriate to her age.
She has a pelvic mass on bimanual examination.

Which is the most likely cause of this mass?

- A Fibroid
- B Haematocolpos
- C Hydronephrosis
- D Meckel diverticulum
- E Ovarian arrhenoblastoma

20 A 54 year old man has swelling of both ankles and is seen in the GP surgery. He has hypertension and takes amlodipine. His pulse rate is 92 bpm and BP 162/90 mmHg. His BMI is 41kg/m². His jugular venous pressure is not raised. Urinalysis shows no abnormality. He has pitting oedema of both ankles.

Which is the most likely cause of his ankle swelling?

- A Drug side effect
- B Heart failure
- C Lymphoedema
- D Nephrotic syndrome
- E Obesity

21 A 43 year old man has fallen twice when standing up from being seated. He has severe vomiting and diarrhoea for 3 days. He has a glioblastoma. He takes dexamethasone 6 mg daily and cyclizine 50 mg when needed.

Investigations:

Sodium	119 mmol/L	(135–146)
Potassium	5.5 mmol/L	(3.5–5.3)
Urea	14.2 mmol/L	(2.5–7.8)
Creatinine	118 micromol/L	(60–120)
Urine osmolality	400 mOsmol/kg	
Urinary sodium	30 mmol/L	
Serum osmolality	260 mOsmol/kg	(285–295)

Which is the most likely cause for these results?

- A Adrenal insufficiency
- B Dehydration
- C Medication side-effects
- D Stroke
- E Syndrome of inappropriate ADH secretion

22 A 5 year old boy has an episode of unconsciousness and is seen in the Emergency Department. He ran into his school desk, cried out in pain and then fell to the floor unconscious. He was limp and pale for 1 minute then his body became stiff and he started to shake. His eyes rolled back and he had froth foaming from his mouth. The episode lasted 2 minutes and he gradually started to regain consciousness. He had one previous similar episode following a cut to his finger.

Neurological examination is normal.

Which is the most likely diagnosis?

- A Absence seizure
- B Febrile convulsion
- C Hyperventilation
- D Reflex anoxic seizure
- E Tonic-clonic seizure

23 A 54 year old man is unable to grip effectively with his right hand following recovery from a general anaesthetic for bowel surgery. At the end of the procedure his right arm was found to be hanging over the edge of the operating table. There is weakness of extension of his right wrist and altered sensation over the dorsum of his first web space.

Which is the most likely affected nerve?

- A Axillary
- B Median
- C Musculocutaneous
- D Radial
- E Ulnar

24 A 75 year old woman has three dizzy spells where she has collapsed to the floor in the past week. She does not lose consciousness and has no preceding warning symptoms. She has hypertension and ischaemic heart disease. She takes amlodipine, aspirin, atorvastatin and indapamide.

Which is the most appropriate diagnostic investigation?

- A 24 hour blood pressure monitoring
- B 24 hour ECG monitoring
- C ECG
- D Echocardiogram
- E Postural blood pressure measurement

25 A 24 year old man has mild discomfort in his left scrotum for 4 months. He has noticed his scrotum is lower on the left than on the right, especially in the evenings. He has palpable structures in his left scrotum that feel worm-like.

There is no tenderness on palpation.

Which is the most appropriate next investigation?

- A Gram stained urethral smear
- B Midstream urine for culture and sensitivity
- C Scrotal exploration
- D Semen analysis
- E Ultrasound scan of scrotum

26 A 9 year old boy is treated for an exacerbation of his asthma in the Emergency Department. He has been given continuous salbutamol and ipratropium nebulisers. He was given oral prednisolone 1 hour ago. He is conscious and talking in full sentences. His pulse rate is 125 bpm, respiratory rate 30 breaths per minute and oxygen saturation 95% on 10 litres of oxygen. He has intercostal recession and has bilateral wheeze throughout both lung fields.

Which is the most appropriate next management step?

- A Intravenous aminophylline infusion
 - B Intravenous hydrocortisone bolus
 - C Intravenous magnesium sulfate infusion
 - D Intubate and ventilate
 - E Nebulised adrenaline
-

27 A 65 year old woman has low mood, hopelessness, anhedonia, poor concentration, low energy, insomnia, lack of appetite and suicidal ideation for 8 weeks. She takes long-term anticoagulant therapy with warfarin for atrial fibrillation.

Which is the most appropriate management?

- A Amitriptyline
- B Cognitive behavioural therapy
- C Psychodynamic therapy
- D Sertraline
- E Zopiclone

28 A 74 year old man has a severe headache of sudden onset and is seen in the Emergency Department. He had no preceding symptoms. His temperature is 37.5°C. He has mild left-sided weakness at power grade 4/5 in both upper and lower limbs.

Which is the most likely diagnosis?

- A Benign intracranial hypertension
- B Brain tumour
- C Encephalitis
- D Meningitis
- E Subarachnoid haemorrhage

29 An 18 month old girl has poor weight gain and is seen in the GP surgery. She eats the same food as her 3 year old brother. She has had loose stools for several months. She has had no vomiting. Her weight is 10.5 kg. Her abdomen is distended and she has loose skin over her buttocks.

Which is the most likely underlying cause of her poor weight gain?

- A Coeliac disease
- B Cow's milk protein allergy
- C Crohn's disease
- D Lactose intolerance
- E Non-organic failure to thrive

30 A 20 year old man is admitted with status epilepticus and aspiration pneumonia. He has worsening respiratory failure requiring mechanical ventilation. He has a chronic life limiting neurological condition with drug resistant epilepsy. He has severe global developmental delay. He has had three previous admissions to the intensive care unit this year. The family want to continue with active treatment but the intensive care team have advised that the patient should not be ventilated.

Which is the most appropriate next step in management?

- A Apply for a court order to withdraw treatment
- B Complete a Do Not Resuscitate (DNR) form
- C Discuss the concerns of the intensive care team with the family
- D Follow the advice of the intensive care team
- E Follow the family wishes for active treatment

31 A 64 year old man has retrosternal chest pain for 1 hour. He had similar pain 12 hours earlier that lasted for 3 hours. His pulse rate is 40 bpm and BP 120/60 mmHg. He is currently pain free after taking oral aspirin and sublingual glyceryl trinitrate.

Which is the most appropriate immediate test?

- A Angiogram
- B Chest X-ray
- C Creatine kinase level
- D ECG
- E Troponin level

32 A 6 week old baby girl has a murmur found at her routine baby check. She is breastfeeding well. She is not cyanosed. Both femoral pulses are palpable. There are no heaves or thrills. She has a harsh pansystolic murmur, grade 3/6, loudest at the lower left sternal edge with no radiation.

Her liver is not enlarged.

Which is the most likely diagnosis?

- A Coarctation of the aorta
- B Innocent murmur
- C Pulmonary stenosis
- D Tetralogy of Fallot
- E Ventricular septal defect

33 A 27 year old woman with Crohn's disease is passing feculent material through her vagina.

Which part of the bowel is most likely to be causing the symptoms?

- A Caecum
- B Descending colon
- C Ileum
- D Jejunum
- E Sigmoid colon

34 A 23 year old woman has worsening diarrhoea with blood and mucus for 2 months and is seen in the GP surgery. She has abdominal pain and bloating. She has no weight loss. Her abdomen is soft and there is mild left-sided tenderness on deep palpation. She has active bowel sounds.

Investigations:

Haemoglobin	102 g/L	(115–150)
White cell count	11.2 x10 ⁹ /L	(4.0–11.0)
Platelets	395 x10 ⁹ /L	(150–400)
CRP	78 mg/L	(<5)

Which is the most appropriate diagnostic investigation?

- A Colonoscopy
- B Faecal calprotectin
- C Faecal occult blood
- D Helicobacter pylori stool antigen
- E Stool culture and sensitivity

35 A 31 year old woman has increasing shortness of breath and left-sided pleuritic chest pain for 1 week. She smokes 10 cigarettes per day. She takes the combined oral contraceptive pill. Her temperature is 36.8°C, pulse rate 105 bpm, BP 105/80 mmHg, respiratory rate 22 breaths per minute and oxygen saturation 98% breathing air.

Her chest is clear.

Which is the most likely diagnosis?

- A Bronchiectasis
- B Lung cancer
- C Pneumonia
- D Pulmonary embolism
- E Pulmonary tuberculosis

36 A 22 year old woman requires long-term contraception and is reluctant to take regular tablets. She has two children. She is a shift worker. Her BP is 138/81 mmHg and BMI 26 kg/m².

Investigations:

Transvaginal ultrasound: Enlarged multifibroid uterus with uterine cavity distortion

Which is the most appropriate contraception?

- A Combined oral contraceptive pill
- B Diaphragm
- C Etonogestrel implant (Implanon)
- D Levonorgestrel-releasing intrauterine system (Mirena coil)
- E Tubal ligation

37 A 75 year old man has attended the Emergency Department on two occasions over a 6 week period with bruising to his forearms and face. He has dementia. He is physically fit and takes no regular prescription medication.

Investigations:

Haemoglobin	146 g/L	(130–175)
White blood count	$7.2 \times 10^9/\text{L}$	(4.0–11.0)
Platelets	$250 \times 10^9/\text{L}$	(150–400)
INR	1.0	(1.0)

Which is the most likely explanation for his bruising?

- A Bleeding disorder
- B Non-accidental injury
- C Occult malignancy
- D Scurvy
- E Vasculitis

38 A 26 year old woman has severe abdominal pain and heavy vaginal bleeding and is seen on the labour ward. She is 40 weeks pregnant in her first pregnancy. Her uterus is tender and hard. The fetal heart rate is 180 bpm.

Which is the most likely diagnosis?

- A Cervical ectropion
- B Disseminated intravascular coagulation
- C Placenta praevia
- D Placental abruption
- E Vasa praevia

39 A 55 year old man has difficulty breathing after being stabbed with a knife in the right side of his neck. The wound is in the right posterior triangle of his neck. His chest movements are asymmetrical.

Which nerve is most likely damaged on the injured side?

- A Greater splanchnic nerve
- B Phrenic nerve
- C Recurrent laryngeal nerve
- D Spinal accessory nerve
- E Vagus nerve

40 A 36 year old woman gave birth to her first child 4 weeks ago. She feels tired and is worried about her lack of feelings for the baby. She has loss of appetite, sleep disturbance and occasional intrusive thoughts of harming the baby.

Which is the most likely diagnosis?

- A Drug induced psychosis
- B Generalised anxiety disorder
- C Normal postnatal symptoms
- D Obsessive compulsive disorder
- E Postnatal depression

41 A 34 year old woman has had secondary amenorrhoea for 8 months. She has lost 6 kg in weight despite having a good appetite.

Which is the most likely diagnosis?

- A Hyperthyroidism
- B Hypogonadism
- C Polycystic ovary syndrome
- D Premature ovarian failure
- E Prolactinoma

42 A 30 year old woman has bright red rectal bleeding. The blood is on the surface of the stool and she has intermittent mucus on wiping. She has a longstanding constipation with the passage of hard faeces.

Which is the most likely diagnosis?

- A Anal fissure
- B Haemorrhoids
- C Meckel diverticulum
- D Systemic bleeding disorder
- E Trauma

43 A 55 year old man has acute retrosternal discomfort and is unable to swallow an hour after eating a sandwich. For the last month he has found swallowing painful and has lost weight.

Which is the most appropriate immediate management?

- A Barium swallow
- B Chest X-ray
- C CT scan of the thorax
- D Outpatient clinic referral
- E Upper gastrointestinal endoscopy

44 An 18 month old boy has delay in his developmental progress. He scribbles meaninglessly using a pencil and has no hand dominance. He has a social smile. He does not hold eye contact. He has started walking. He is unable to run or kick a ball. He speaks two-syllable words with no meaning.

Which developmental feature gives the most cause for concern?

- A Absence of hand dominance
- B Inability to hold eye contact
- C Inability to run or kick a ball
- D Meaningless scribbling
- E Speaking two-syllable words with no meaning

45 A 38 year old woman has red itchy eyes with crusting in the morning for 9 days. She works in a laboratory and is having difficulty using her microscope. There is no history of trauma. Her conjunctivae are red. Pupils and visual acuity are normal.

Which is the most appropriate topical treatment?

- A Anaesthetic
- B Antibacterial
- C Antiviral
- D Mydriatic
- E Steroid

46 A 28 year old woman has a generalised seizure and is admitted to the antenatal ward. She is 38 weeks pregnant. Her BP is 190/120 mmHg

Investigations:

Urinalysis: protein 3+

Which is the most appropriate initial intravenous management?

- A Diazepam
- B Hydralazine
- C Levetiracetam
- D Magnesium sulfate
- E Phenytoin

47 A 42 year old woman tests positive for high-risk human papillomavirus (HPV) on a routine cervical smear and is seen in the GP surgery.

Investigations:

Cervical Cytology: moderate dyskaryosis.

Which is the most appropriate management?

- A No action required
- B Refer for colposcopy
- C Repeat smear in 3 months
- D Repeat smear in 1 year
- E Repeat smear in 3 years

48 A 55 year old woman is due to have a diagnostic gastroscopy. She has type 2 diabetes and takes gliclazide.

Which is the most appropriate management of her diabetes for the procedure?

- A Change gliclazide to metformin
- B Change gliclazide to subcutaneous insulin
- C Omit gliclazide for 24 hours prior to procedure
- D Omit gliclazide on morning of procedure
- E Start glucose-potassium-insulin infusion on day of procedure

49 A 32 year old woman has intermittent palpitations, paraesthesia, breathlessness and dizziness for 6 months. She is unable to tolerate crowded places and avoids trains and supermarkets.

Which is the most appropriate long-term treatment?

- A Amitriptyline
- B Diazepam
- C Moclobemide
- D Propranolol
- E Sertraline

50 A 55 year old woman has shortness of breath on exertion. She has Hashimoto's thyroiditis and takes levothyroxine.

Investigations:

Haemoglobin	64 g/L	(115–150)
Mean cell volume	103 fL	(80–96)
Thyroid stimulating hormone	1.4 mU/L	(0.3–4.2)

Which is the most likely haematological diagnosis?

- A Folate deficiency
- B Haemolysis
- C Iron deficiency
- D Myelodysplasia
- E Pernicious anaemia

51 A 60 year old man is anuric. He recently had a left nephrectomy for renal cell carcinoma. His temperature is 39.0°C, pulse rate 98 bpm and BP 80/60 mmHg.

Investigations:

Ultrasound scan of abdomen: Gross dilatation of the upper right renal tract and a stone impacted at the pelvi-ureteric junction.

Which is the most appropriate therapeutic intervention?

- A Bladder catheterisation
- B Lithotripsy
- C Percutaneous right nephrostomy
- D Retrograde drainage of the right renal tract
- E Suprapubic catheterisation

52 A 70 year old woman has a red and scaly rash on her trunk and is seen by the district nurses. She is bed bound and receiving treatment of a pressure sore. She has scratch marks on her limbs and trunk and scaling linear lesions on her hands and feet.

Which is the most appropriate initial topical treatment for her rash?

- A Clobetasone
- B Clotrimazole
- C Hydrocortisone
- D Malathion
- E Permethrin

53 A 28 year old woman wants to know if she is ovulating because she is trying to become pregnant. She has a regular 32 day cycle.

Which day should her serum progesterone level be measured?

- A 7
- B 14
- C 21
- D 25
- E 30

54 An 80 year old woman has a swollen right wrist joint after a mechanical fall.

Investigations:

X-ray: Fracture of the right distal radius with minimal displacement.

Which is the most appropriate treatment?

- A Below elbow backslab plaster of Paris
- B Below elbow full plaster of Paris
- C Closed reduction of fracture
- D Open reduction and internal fixation
- E Wrist splint

55 A 72 year old man has increasing difficulty speaking clearly for 2 years and is seen by his GP. He has worsening memory and significant changes in his personality and conduct. He has been making inappropriate sexual remarks whilst in the supermarket. Physical examination is normal.

Which is the most likely diagnosis?

- A Alzheimer's disease
- B Frontal-temporal dementia
- C Huntington's disease
- D Lewy body dementia
- E Multi-infarct dementia

56 An 82 year old woman has a gradual deterioration of vision for 2 years. Her symptoms are more noticeable when she is driving at night. She smokes 10 cigarettes a day. She does not take any medication. Visual acuities are 6/36 in the right eye and 6/18 in the left; these do not improve with her prescription spectacles. The corneas and pupils appear normal. The fundus in each eye is partly obscured.

Which is the most likely diagnosis?

- A Cataract
- B Diabetic retinopathy
- C Giant cell arteritis
- D Glaucoma
- E Refractive error

57 A 36 year old woman has worsening shortness of breath and is seen on the acute medical ward. She was admitted to the ward 3 days ago with fever, shortness of breath and left-sided chest pain on inspiration. She has had 3 days of intravenous antibiotics. Her temperature is 38.0°C, pulse rate 102 bpm, BP 132/76 mmHg and oxygen saturation is 94% on 4 L/min oxygen with nasal prongs. She has dullness to percussion at the left base with bronchial breathing.

Investigations:

Chest X-ray on day 1 of admission: opacification in the left lower zone

Chest X-ray on day 3 of admission: increased opacification with a fluid level to the left mid-zone

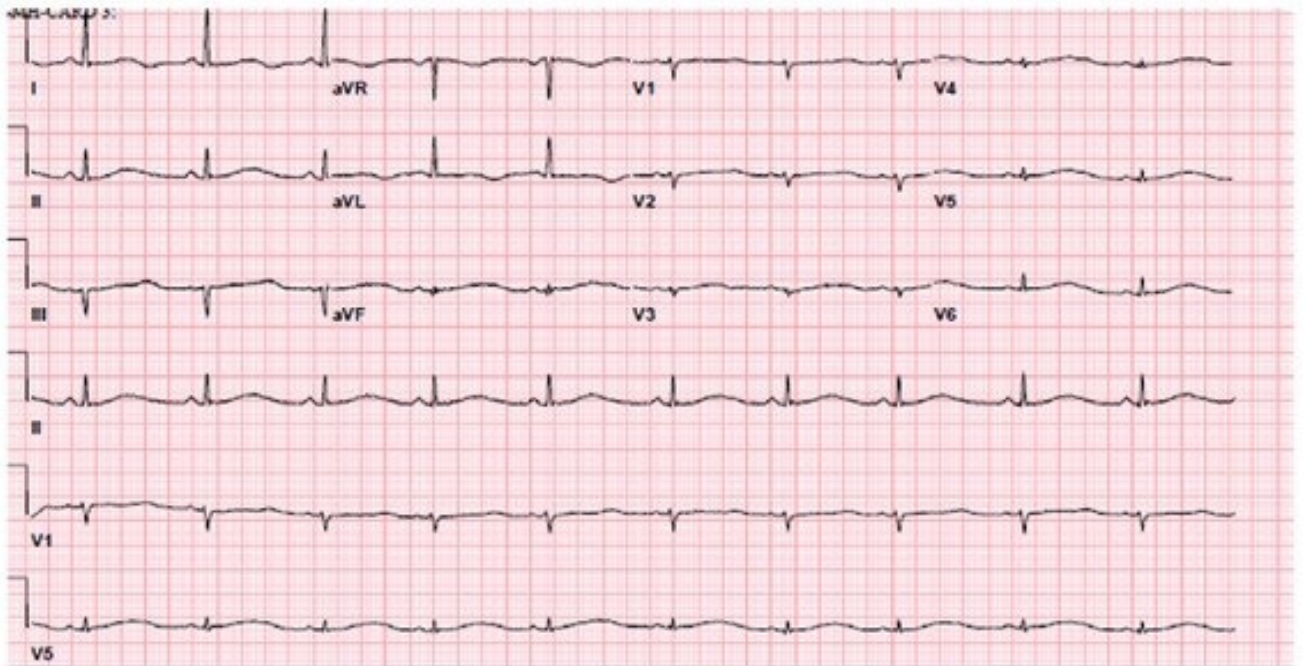
Which is the most appropriate investigation at this stage?

- A Blood cultures
- B Bronchoscopy
- C CT scan of chest
- D Induced sputum microscopy
- E Ultrasound guided pleural fluid aspiration

58 A 27 year old man has recurrent episodes of fainting and is seen in the cardiology clinic. His pulse rate is 74 bpm and BP 110/60 mmHg.

Cardiac examination is normal.

See ECG below.



Which is the most likely cause of his syncope?

- A Long QT syndrome
- B Paroxysmal atrial fibrillation
- C Sick sinus syndrome
- D Trifascicular block
- E Wolff-Parkinson-White syndrome

59 A 65 year old man has a dry cough and progressive shortness of breath for 3 months. He is seen in the respiratory clinic. He has never smoked. His weight is stable. He has finger clubbing. His temperature is 36.5°C, pulse 70 bpm, BP 110/80 mmHg, respiratory rate 26 breaths per minute and oxygen saturation breathing air is 91%. He has bibasal fine end-inspiratory crackles.

Investigation:

Chest X-ray: reticulonodular shadowing at both bases

Lung function tests: reduced vital capacity with an FEV₁/FVC ratio of 85%

Which is the most appropriate next investigation?

- A Broncho-alveolar lavage
- B Cardiopulmonary exercise test
- C Echocardiography
- D High resolution CT scan of chest
- E Video-assisted thoracoscopic lung biopsy

60 A 61 year old man is breathless at rest and is brought to the Emergency Department. He has a worsening cough and shortness of breath on walking for 4 months. He is an ex-smoker with a 40 pack-year history. His pulse rate is 105 bpm, irregular and BP 100/65 mmHg. He has bilateral inspiratory crepitations in the lung bases with scattered wheeze.

Investigation:

See chest X-ray below.



Which is the most likely diagnosis?

- A Bronchopneumonia
- B Chronic obstructive pulmonary disease
- C Left ventricular failure
- D Pulmonary embolus
- E Pulmonary fibrosis

61 A Foundation Year 2 colleague has been taking photographs of patients' X-rays on her personal smart phone. She explains that the images are for her personal study and have not been shared.

Which is the most appropriate next step?

- A Inform her clinical supervisor
- B Insist she gets written consent from the patients involved
- C Notify the police
- D Refer to the General Medical Council
- E Submit an incident report

62 A 28 year old woman has intermittent headaches for 6 months and is seen in the neurology clinic. She has a dull ache lasting 1 hour on both sides of her head with tightness in the neck muscles and pressure behind her eyes. She does not take any medication. She continues to work as a solicitor. Her temperature is 36.5°C, pulse rate 82 bpm and BP 122/70 mmHg. Neurological examination is normal.

Investigations:

CT scan of brain: normal

Which is the most appropriate initial treatment?

- A Aspirin
- B Paracetamol
- C Prednisolone
- D Sumatriptan
- E Topiramate

63 An 81 year old man has increasing confusion, agitation, and worsening urinary incontinence. He is a resident in a nursing home. He has dementia, asthma and prostate cancer. He takes beclomethasone and salbutamol inhalers, and rivastigmine. His temperature is 37.9°C, pulse rate 88 bpm, BP 142/92 mmHg and respiratory rate 20 breaths per minute.

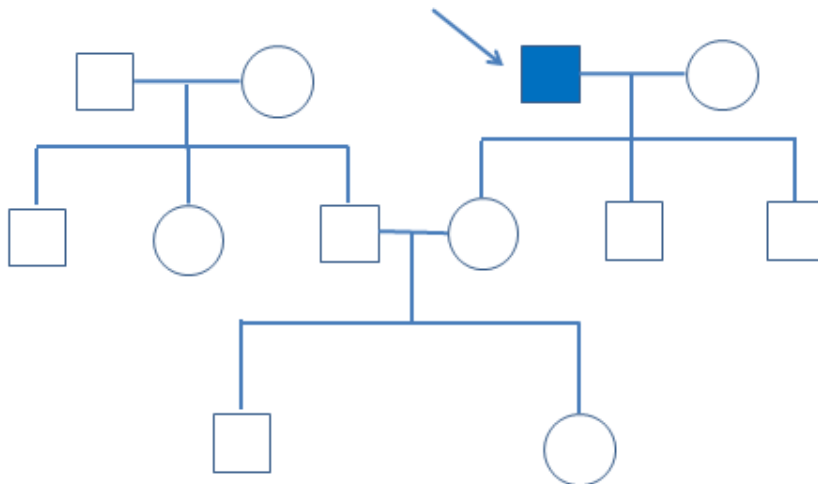
Heart sounds are normal and chest is clear.

Which investigation is most likely to confirm his diagnosis?

- A Blood culture
- B Chest X-ray
- C CT of head
- D Full blood count
- E Urine culture & sensitivity

64 A 64-year old man has been diagnosed with Huntington's chorea. His family tree is shown; the index case is shown by the arrow. The other family members have not yet been tested.

See diagram below.



What is the risk that his grandson has Huntington's chorea?

- A 1 in 2
- B 1 in 4
- C 1 in 8
- D 3 in 4
- E No risk

65 A 10 month old boy has vomiting and fever for 3 days and is seen in the Emergency Department. He is drowsy and has cool peripheries. His weight is 8 kg. A 20 mL/kg intravenous bolus over 20 minutes is planned.

Which is the correct fluid bolus to give?

- A 0.9% sodium chloride and 5% glucose
- B 0.18% sodium chloride and 5% glucose
- C 0.45% sodium chloride and 5% glucose
- D 5% glucose
- E 10% glucose

66 A 45 year old woman has had flu like symptoms, palpitations, anxiety and pain over her thyroid gland for 2 weeks. Her pulse rate is 92 bpm and regular. She has a fine tremor and is sweating. She is tender over her thyroid but there are no masses.

Investigations:

TSH 0.1 mU/L (0.3–4.2)

Free T4 28.6 pmol/L (9–25)

Isotope scan of thyroid shows global decreased uptake.

Which is the most appropriate treatment?

- A Carbimazole
- B Prednisolone
- C Propranolol
- D Propylthiouracil
- E Radioiodine

67 A 10 year old girl has vomiting and bloody diarrhoea for 2 days and is seen in the Emergency Department. She had been on a school trip to a local farm 1 week ago. She has previously been healthy and is not taking any medications. She is pale, drowsy and dehydrated. Her pulse rate is 120 bpm and BP 140/96 mmHg.

Investigations:

Haemoglobin	80 g/L	(115–140)
White cell count	$3.2 \times 10^9/\text{L}$	(4.0–11.0)
Platelets	$76 \times 10^9/\text{L}$	(150–400)
Sodium	130 mmol/L	(135–146)
Potassium	4.0 mmol/L	(3.5–5.0)
Urea	14 mmol/L	(2.5–6.5)
Creatinine	200 micromol/L	(34–65)

Blood film: fragmented red blood cells (schistocytes, helmet cells)

Which is the most likely underlying diagnosis?

- A Bacillus cereus enteritis
- B Diabetic ketoacidosis
- C Haemolytic uraemic syndrome
- D Idiopathic thrombocytopenic purpura
- E Thrombotic thrombocytopenic purpura

68 A 44 year old man has a superficial cut on his arm after a fall, whilst intoxicated with alcohol, 24 hours ago and seen in the Emergency Department. He has been drinking 40 units of alcohol a week for 10 years. He has no signs of acute alcohol withdrawal or current intoxication.

Which would be the most appropriate next step?

- A Admit to medical unit for observation
- B No further action required
- C Refer back to GP for review in 48 hours
- D Refer to alcohol support services
- E Urgent referral to liaison psychiatry

69 A 73 year old woman has blood taken for her international normalised ratio (INR) and is seen in the GP Surgery. She is taking clarithromycin for a chest infection. She has hypertension, osteoporosis, trigeminal neuralgia and a metallic mitral valve replacement 20 years ago. She takes warfarin, amlodipine, atorvastatin, carbamazepine and sodium risedronate.

Investigations:

INR 1.3 (2.5)

Which medication is most likely to have interacted with warfarin to cause this INR?

- A Amlodipine
- B Atorvastatin
- C Carbamazepine
- D Clarithromycin
- E Risedronate sodium

70 A 5 day old boy has poor urinary stream. Antenatal ultrasound showed bilateral hydronephrosis, thickened bladder wall and bladder diverticula.
He has normal genitalia.

Which is the most appropriate diagnostic investigation?

- A CT scan of renal tract
- B DMSA
- C MCUG
- D MRI scan of renal tract
- E Repeat ultrasound of renal tract

71 A 28 year old man has been diagnosed with schizophrenia. He is taking antipsychotic medication. He is keen to understand the underlying changes in his brain biochemistry.

Which neurotransmitter is primarily implicated in the pathophysiology of schizophrenia?

- A Acetylcholine
- B Adenosine triphosphate
- C Dopamine
- D Histamine
- E Substance P

72 A 72 year old woman has a worsening cough, fever, breathlessness and rigors for 6 days. She has left sided chest pain aggravated by breathing. Her temperature is 39.9°C, pulse rate 120 bpm, BP 90/50 mmHg and respiratory rate 30 breaths per minute. The percussion note is dull and there are no breath sounds over the lower left lung field. There are normal breath sounds otherwise throughout the lung fields.

Which is the most likely finding on a chest X-ray?

- A Enlarged hilar lymph nodes
- B Lower lobe collapse
- C Lower lobe consolidation
- D Lung mass
- E Pleural effusion

73 A 44 year old woman has dry, itchy eyes for 6 months and is seen in the outpatient clinic. She also describes a dry mouth and has had intermittent arthralgia for 1 year.

Investigations:

Extractable nuclear antigen positive

Schirmer's test 7 mm wetting after 5 min (>15)

Which is the most appropriate treatment for her dry eyes?

- A Cyclopentolate
- B Hypromellose
- C Prednisolone
- D Sodium cromoglicate
- E Timolol

74 A 68 year old woman has worsening urinary frequency and urgency for 18 months. She only passes small volumes of urine.

Abdominal and pelvic examination are normal. Urinalysis is normal.

Which is the most appropriate initial management?

- A Intermittent self-catheterisation
- B Nitrofurantoin
- C Oxybutynin
- D Refer to urology
- E Supervised bladder training

75 Dr A, a FY2 doctor, is aware that Dr B, a fellow FY2 colleague on the psychiatric team, is using social media to befriend a 30 year old patient who was recently discharged from the psychiatric unit. This interaction occurs outside of work.

Which is the most appropriate next step for Dr A to take?

- A Contact adult safeguarding team
- B Inform Dr B's consultant and educational supervisor
- C No further action required as Dr B has a right to privacy outside work
- D Remind Dr B that this is not in keeping with GMC good medical practice
- E Report Dr B to the GMC

76 A 45 year old woman has severe learning difficulties and is seen in the Emergency Department after a fall. She is in severe pain and has a Colles fracture which needs surgical fixation. She is distressed and tearful during a conversation about the operation and does not follow the discussion. When her carer arrives, she is unable to explain to her carer what the operation involves.

Which feature best demonstrates that she lacks capacity?

- A Carer involved in her care
- B Severe learning disability
- C Severe pain
- D Tearful and distressed
- E Unable to explain what the operation involves

77 A 72 year old man has heart failure. He started taking ramipril 2 weeks ago.

Which is the most appropriate monitoring blood test to carry out?

- A Brain natriuretic peptide
- B Creatine kinase
- C Full blood count
- D Liver function tests
- E Renal function

78 A 32 year old woman has shortness of breath and chest pain and is seen in the Emergency Department. She is 24 weeks pregnant. Her pulse rate is 100 bpm, BP 110/70 mmHg, respiratory rate 28 breaths per minute and oxygen saturation 96% breathing air.

Investigations:

CT Pulmonary angiography: segmental filling defects in right middle and lower lobe branches of the pulmonary arterial tree.

Which is the most appropriate management?

- A Intravenous thrombolysis
- B Intravenous thrombolysis followed by low molecular weight heparin
- C Low molecular weight heparin
- D Surgical embolectomy followed by direct oral anticoagulant
- E Warfarin

79 A 55 year old woman has been sleeping only a couple of hours a night for 2 weeks. She is feeling overactive and feels little need to sleep due to all the activities she is involved in. She was diagnosed with depression and started on antidepressant medication 3 months ago.

Which is the most appropriate next step in her management?

- A Increase her antidepressant dose
- B Start lithium
- C Start olanzapine
- D Stop her antidepressant
- E Switch to a different antidepressant

80 A 23 year old woman has a mole on her leg which has recently changed in size, shape and appearance. She originally noticed it 3 years ago. It is not itchy and does not bleed.

See below image.



Which is the most likely diagnosis?

- A Compound naevus
- B Giant naevus
- C Junctional naevus
- D Malignant melanoma
- E Seborrhoeic keratosis

81 A 65 year old man is having difficulty passing urine for 6 hours. He has had worsening localised lumbar back pain. He has multiple myeloma. He has numbness of his skin at waist level.

Which is the most appropriate investigation?

- A Electromyogram
- B Lumbar X-ray
- C MRI scan of lumbar spine
- D Myelogram
- E Nerve conduction studies

82 A 40 year old woman has experienced occasional cravings to drink alcohol. She has completed a community alcohol detoxification and is attending Alcoholics Anonymous meetings regularly. She is worried that she might start drinking again.

Which medication will be the most helpful to her to remain abstinent?

- A Acamprosate
- B Carbamazepine
- C Chlordiazepoxide
- D Diazepam
- E Lofexidine

83 A 25 year old woman has acne and irregular periods and is seen at her GP surgery. She has a menstrual period every 4 to 9 weeks. She has no other medical conditions or family history. Her BP is 127/83 mmHg and BMI 24.3 kg/m².

Investigations:

Glycated haemoglobin (HbA1c)	33 mmol/mol	(20–42)
Testosterone	4.2 nmol/L	(0.2–2.9)
Sex hormone binding globulin	38 nmol/L	(40–120)
Thyroid stimulating hormone	2.3 mU/L	(0.3–4.2)
Prolactin	143 U/L	(100–500)

Which treatment is most appropriate to manage her symptoms?

- A Combined oral contraceptive pill
- B Metformin
- C Minoxidil
- D Progestogen-only pill
- E Tranexamic acid

84 A 72 year old man has painless haematuria and is seen in the Emergency Department. He has atrial fibrillation and takes warfarin. His temperature is 36.9°C, pulse rate 78 bpm and BP 134/78 mmHg.

Investigations:

Clotting screening:

INR	4.0	(Target: 2.5)
aPTT	72 seconds	(22–41)
Prothrombin time	35 seconds	(10–12)
Fibrinogen	4.0 g/dL	(1.5–4.0)

Urinalysis:

Blood: 4+

Leucocytes: Negative

Nitrites: Negative

Glucose: Negative

Which is the most appropriate initial investigation?

- A CT scan of kidneys, ureter and bladder
- B Prostate specific antigen level
- C Ultrasound of abdomen
- D Urodynamic studies
- E X-ray of kidneys, ureter and bladder

85 A 76 year old woman has severe dementia and lacks capacity with regards to her care and treatment. She lives alone and her son is concerned about her safety at home. He has installed video cameras in her home to keep an eye on her as she has had several falls in the past. On one occasion she left her home and was found wandering in the street. He now locks her doors to prevent her leaving.

Which is the most appropriate course of action?

- A Advise that house keys are kept with neighbours in case of emergency
- B Arrange regular district nurse visits
- C Contact local care home and arrange placement in 24 hour care
- D Contact local safeguarding team to raise concerns
- E No action needed as son is acting in patient's best interest

86 A 75 year old man has rectal bleeding for 3 days and is seen at home by his GP. He is bedbound and has severe dementia and metastatic prostate cancer. He lacks capacity to consent to further investigations and treatment.

Which is the most appropriate next step?

- A Arrange admission to hospital
- B Arrange best interests meeting
- C Arrange urgent colonoscopy
- D No action needed
- E Refer to gastroenterologist

87 A 44 year old man has severe pain following surgical fixation of a comminuted ankle fracture and fasciotomies for compartment syndrome. He has had several doses of oral morphine sulphate and intravenous paracetamol on the trauma ward but remains in severe pain.

Investigations:

Sodium	149 mmol/L	(135–146)
Potassium	4.6 mmol/L	(3.5–5.3)
Urea	12.9 mmol/L	(2.5–7.8)
Creatinine	169 micromol/L	(60–120)
Creatine kinase	876 U/L	(25–200)

Which is the most appropriate additional analgesic to prescribe?

- A Intramuscular diclofenac
- B Oral codeine phosphate
- C Oral oxycodone
- D Patient-controlled intravenous morphine
- E Topical fentanyl patch

88 A 26 year old woman wants to self-discharge from a psychiatric ward. She had taken a significant overdose of antidepressant and antipsychotic medication and was treated in the intensive care unit. She was transferred to the psychiatric ward 2 days ago. Before taking the overdose, she had written a suicide note. Two days before her overdose she permanently lost custody of her only child. She lives alone and has no social support. She now wants to leave the ward stating that she finds it too noisy to relax.

Which is the most appropriate next step?

- A Arrange for home leave for a few hours of respite
- B Allow her to be discharged against medical advice
- C Compulsorily detain for further assessment
- D Discharge her to the care of the crisis and home treatment team
- E Prescribe sedating medication

89 A 12 year old boy has painful blisters which burst leaving shallow lesions. He has been feeling hot and unwell for last 5 days. He has eczema and uses emollients regularly.

See image.



Which is the most likely diagnosis?

- A Atopic eczema
- B Chicken pox
- C Eczema herpeticum
- D Impetigo
- E Staphylococcal skin infection

90 A foundation year 2 doctor overhears a junior doctor colleague complaining to members of her team about an argument she had with an unnamed patient in the hospital canteen

Which is the most appropriate action for the foundation year 2 doctor to take?

- A Inform the GMC
- B Inform their clinical supervisor
- C No action is required
- D Speak to the colleague privately
- E Submit a Critical Incident Report

END

Answer sheet

<u>Question</u>	<u>Correct answer</u>
1. Which is the most likely histological appearance on small bowel biopsy?	E Villous atrophy
2. Which non-prescribed substance is the most important to enquire about in this presentation?	E Heroin
3. Which is the most appropriate investigation?	A CT scan of abdomen
4. Which is the most appropriate course of action?	B Assessment by liaison psychiatry in Emergency Department
5. Which is the most appropriate diagnostic investigation?	C CT pulmonary angiogram
6. Which is the most appropriate test to confirm Helicobacter pylori eradication?	A C13 urea breath test
7. Which is the most likely site of fracture?	C Maxilla
8. Which is the most important initial investigation?	C Capillary glucose
9. Which is the most likely diagnosis?	C Multiple myeloma
10. Which is the most likely acid base state?	B Metabolic alkalosis
11. Which is the most likely diagnosis?	E Periductal mastitis

12. Which is the most appropriate next step?	B Assess patient's mental capacity to decide about her discharge
13. Which is the most appropriate initial management?	E Start N-acetylcysteine
14. Which is the most likely diagnosis?	C Impetigo
15. Which is the most likely diagnosis?	B Benign parotid tumour
16. Which is the most likely diagnosis?	A Diverticular abscess
17. Which is the most appropriate initial drug to prescribe?	A Chlordiazepoxide
18. Which medication is most likely responsible for her clinical findings?	A Amitriptyline
19. Which is the most likely cause of this mass?	B Haematocolpos
20. Which is the most likely cause of his ankle swelling?	A Drug side effect
21. Which is the most likely cause for these results?	E Syndrome of inappropriate ADH secretion
22. Which is the most likely diagnosis?	D Reflex anoxic seizure
23. Which is the most likely affected nerve?	D Radial
24. Which is the most appropriate diagnostic investigation?	E Postural blood pressure measurement

25. Which is the most appropriate next investigation?	E Ultrasound scan of scrotum
26. Which is the most appropriate next management step?	C Intravenous magnesium sulfate infusion
27. Which is the most appropriate management?	D Sertraline
28. Which is the most likely diagnosis?	E Subarachnoid haemorrhage
29. Which is the most likely underlying cause of her poor weight gain?	A Coeliac disease
30. Which is the most appropriate next step in management?	C Discuss the concerns of the intensive care team with the family
31. Which is the most appropriate immediate test?	D ECG
32. Which is the most likely diagnosis?	E Ventricular septal defect
33. Which part of the bowel is most likely to be causing the symptoms?	E Sigmoid colon
34. Which is the most appropriate diagnostic investigation?	A Colonoscopy
35. Which is the most likely diagnosis?	D Pulmonary embolism
36. Which is the most appropriate contraception?	C Etonogestrel implant (Implanon)
37. Which is the most likely explanation for his bruising?	B Non-accidental injury

38. Which is the most likely diagnosis?	D Placental abruption
39. Which nerve is most likely damaged on the injured side?	B Phrenic nerve
40. Which is the most likely diagnosis?	E Postnatal depression
41. Which is the most likely diagnosis?	A Hyperthyroidism
42. Which is the most likely diagnosis?	B Haemorrhoids
43. Which is the most appropriate immediate management?	E Upper gastrointestinal endoscopy
44. Which developmental feature gives the most cause for concern?	B Inability to hold eye contact
45. Which is the most appropriate topical treatment?	B Antibacterial
46. Which is the most appropriate initial intravenous management?	D Magnesium sulfate
47. Which is the most appropriate management?	B Refer for colposcopy
48. Which is the most appropriate management of her diabetes for the procedure?	D Omit gliclazide on morning of procedure
49. Which is the most appropriate long-term treatment?	E Sertraline
50. Which is the most likely haematological diagnosis?	E Pernicious anaemia
51. Which is the most appropriate therapeutic intervention?	C Percutaneous right nephrostomy

52. Which is the most appropriate initial topical treatment for her rash?	E Permethrin
53. Which day should her serum progesterone level be measured?	D 25
54. Which is the most appropriate treatment?	A Below elbow backslab plaster of Paris
55. Which is the most likely diagnosis?	B Frontal-temporal dementia
56. Which is the most likely diagnosis?	A Cataract
57. Which is the most appropriate investigation at this stage?	E Ultrasound guided pleural fluid aspiration
58. Which is the most likely cause of his syncope?	A Long QT syndrome
59. Which is the most appropriate next investigation?	D High resolution CT scan of chest
60. Which is the most likely diagnosis?	C Left ventricular failure
61. Which is the most appropriate next step?	A Inform her clinical supervisor
62. Which is the most appropriate initial treatment?	B Paracetamol
63. Which investigation is most likely to confirm his diagnosis?	E Urine culture & sensitivity
64. What is the risk that his grandson has Huntingdon's chorea?	B 1 in 4

65. Which is the correct fluid bolus to give?	A 0.9% sodium chloride and 5% glucose
66. Which is the most appropriate treatment?	C Propranolol
67. Which is the most likely underlying diagnosis?	C Haemolytic uraemic syndrome
68. Which would be the most appropriate next step?	D Refer to alcohol support services
69. Which medication is most likely to have interacted with warfarin to cause this INR?	C Carbamazepine
70. Which is the most appropriate diagnostic investigation?	C MCUG
71. Which neurotransmitter is primarily implicated in the pathophysiology of schizophrenia?	C Dopamine
72. Which is the most likely finding on a chest X-ray?	E Pleural effusion
73. Which is the most appropriate treatment for her dry eyes?	B Hypromellose
74. Which is the most appropriate initial management?	E Supervised bladder training
75. Which is the most appropriate next step for Dr A to take?	D Remind Dr B that this is not in keeping with GMC good medical practice
76. Which feature best demonstrates that she lacks capacity?	E Unable to explain what the operation involves

77. Which is the most appropriate monitoring blood test to carry out?	E Renal function
78. Which is the most appropriate management?	C Low molecular weight heparin
79. Which is the most appropriate next step in her management?	D Stop her antidepressant
80. Which is the most likely diagnosis?	D Malignant melanoma
81. Which is the most appropriate investigation?	C MRI scan of lumbar spine
82. Which medication will be the most helpful to her to remain abstinent?	A Acamprosate
83. Which treatment is most appropriate to manage her symptoms?	A Combined oral contraceptive pill
84. Which is the most appropriate initial investigation?	A CT scan of kidneys, ureter and bladder
85. Which is the most appropriate course of action?	D Contact local safeguarding team to raise concerns
86. Which is the most appropriate next step?	B Arrange best interests meeting
87. Which is the most appropriate additional analgesic to prescribe?	D Patient-controlled intravenous morphine
88. Which is the most appropriate next step?	C Compulsorily detain for further assessment

89. Which is the most likely diagnosis?	C Eczema herpeticum
90. Which is the most appropriate action for the foundation year 2 doctor to take?	D Speak to the colleague privately

END