CLINICAL SCENARIOS

CLINICAL INTERVIEW

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Content

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General Medicine

1. Acute Chest Pain

Scenario: A 55-year-old man presents with 2-hour history of central crushing chest pain radiating to the left arm, associated with diaphoresis and nausea.

Answer:

- A–E assessment, continuous monitoring, urgent ECG
- Bloods: Troponin, FBC, U&E
- Immediate management: Aspirin, GTN, morphine if required
- Activate ACS pathway and refer to cardiology

Differentials: ACS, PE, Aortic dissection, Pericarditis

2. Acute Shortness of Breath

Scenario: A 72-year-old presents with sudden breathlessness, hypoxia (SpO_2 85%), and bilateral crackles.

Answer:

- A–E, high-flow oxygen
- ABG, CXR, ECG
- Treat cause: diuretics (HF), antibiotics (infection), bronchodilators
- Escalate if deteriorating

Differentials: Heart failure, PE, Pneumonia, COPD

3. Sepsis

Scenario: A 68-year-old presents with fever, hypotension, tachycardia, and confusion.

Answer:

A–E assessment

- Sepsis 6 within 1 hour
- Blood cultures, lactate
- IV antibiotics and fluids
- Escalate to senior/ICU

Differentials: Septic shock, Dehydration, Anaphylaxis

4. Reduced Conscious Level

Scenario: A 60-year-old is brought in with reduced consciousness (GCS 9), cause unknown.

Answer:

- A–E, check glucose immediately
- CT head, ABG, bloods
- Consider naloxone
- Protect airway and escalate

Differentials: Hypoglycaemia, Stroke, Overdose, Sepsis

5. Syncope

Scenario: A 40-year-old had a brief loss of consciousness with full recovery.

Answer:

- A–E, ECG
- Lying/standing BP
- Bloods
- Risk stratification

Differentials: Vasovagal, Arrhythmia, Seizure

Cardiology

1. Acute Coronary Syndrome (STEMI)

Scenario: A 58-year-old man presents with 1-hour history of severe central chest pain radiating to the left arm, associated with diaphoresis and vomiting. ECG shows ST elevation in anterior leads.

Answer:

- A–E assessment, cardiac monitoring, IV access
- Immediate ECG confirmation and repeat if needed
- Give Aspirin + P2Y12 inhibitor + GTN ± morphine
- Activate PPCI pathway urgently (or thrombolysis if unavailable)
- Bloods including troponin

Differentials: STEMI, Pericarditis, Aortic dissection

2. NSTEMI / Unstable Angina

Scenario: A 65-year-old presents with intermittent chest pain at rest. ECG shows ST depression and troponin is elevated.

Answer:

- A–E, continuous monitoring
- Bloods including serial troponins
- Dual antiplatelet therapy + anticoagulation
- Risk stratification (GRACE score)
- Early cardiology referral for angiography

Differentials: NSTEMI, Unstable angina, PE

3. Fast Atrial Fibrillation

Scenario: A 70-year-old presents with palpitations and dizziness. HR 150 bpm, BP stable. ECG confirms AF.

Answer:

- A–E assessment
- Rate control (beta-blocker or diltiazem)
- Bloods including TFTs, electrolytes
- Assess CHA_2DS_2-VASc → start anticoagulation
- Consider rhythm control if appropriate

Differentials: AF, SVT, Thyrotoxicosis

4. Bradycardia (Symptomatic)

Scenario: A 75-year-old presents with syncope and HR 35 bpm, hypotensive.

Answer:

- A–E, attach cardiac monitor
- ECG to identify cause
- Atropine IV
- Prepare for pacing (transcutaneous/transvenous)
- Urgent cardiology input

Differentials: Heart block, Drug-induced, Sick sinus syndrome

5. Acute Heart Failure

Scenario: A 78-year-old presents with acute breathlessness, orthopnoea, and bilateral crackles.

Answer:

- A–E, oxygen therapy
- IV diuretics (furosemide)
- CXR, BNP, ECG
- Fluid balance and monitoring
- Consider CPAP if severe

Differentials: HF, Pneumonia, PE

6. Cardiogenic Shock

Scenario: A 60-year-old post-MI patient presents with hypotension, cold peripheries, and reduced urine output.

Answer:

- A–E, urgent senior review
- Cardiac monitoring, IV access
- Bloods including lactate
- Inotropes/vasopressors
- Urgent cardiology/ICU involvement

Differentials: Cardiogenic shock, Septic shock

7. Pericarditis

Scenario: A 35-year-old presents with sharp chest pain worse on inspiration and relieved by sitting forward.

Answer:

- A–E assessment
- ECG (diffuse ST elevation)
- Bloods including CRP, troponin
- NSAIDs ± colchicine
- Exclude tamponade

Differentials: Pericarditis, MI, PE

8. Cardiac Tamponade

Scenario: A patient presents with hypotension, raised JVP, and muffled heart sounds.

Answer:

- A–E, urgent assessment
- Bedside echocardiography
- Immediate pericardiocentesis
- ICU involvement

Differentials: Tamponade, Massive PE

9. Supraventricular Tachycardia (SVT)

Scenario: A 30-year-old presents with sudden onset palpitations, HR 180 bpm, stable BP.

Answer:

- A–E assessment
- Vagal manoeuvres
- IV adenosine
- ECG monitoring
- Refer if recurrent

Differentials: SVT, AF, Anxiety

10. Infective Endocarditis

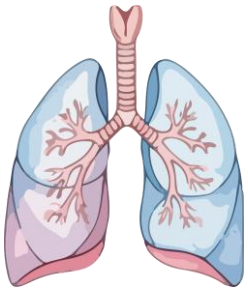
Scenario: A 50-year-old with fever, murmur, and history of IV drug use presents unwell.

Answer:

- A–E assessment
- Blood cultures ×3 before antibiotics
- Echocardiography
- IV antibiotics
- MDT (cardiology + microbiology)

Differentials: Endocarditis, Sepsis

Respiratory



1. Acute Severe Asthma

Scenario: A 25-year-old presents with worsening shortness of breath, unable to complete sentences, RR 32, SpO_2 90%, and widespread wheeze.

Answer:

- A–E assessment, high-flow oxygen

- Nebulised salbutamol + ipratropium
- IV steroids (hydrocortisone)
- ABG and continuous monitoring
- Escalate early to senior/ICU if poor response

Differentials: Acute asthma, Anaphylaxis, Pneumothorax

2. COPD Exacerbation

Scenario: A 70-year-old with known COPD presents with increased breathlessness, productive cough, and hypoxia.

Answer:

- A–E, controlled oxygen (target 88–92%)
- ABG
- Nebulisers, steroids, antibiotics
- Consider NIV if hypercapnic acidosis

Differentials: COPD exacerbation, Pneumonia, PE

3. Community-Acquired Pneumonia

Scenario: A 65-year-old presents with fever, cough, and pleuritic chest pain.

Answer:

A–E assessment

- CXR, bloods, cultures
- CURB-65 scoring
- Start antibiotics
- Oxygen if required

Differentials: Pneumonia, COVID-19, PE

4. Pulmonary Embolism

Scenario: A 50-year-old presents with sudden pleuritic chest pain and shortness of breath.

Answer:

- A–E assessment
- Wells score
- D-dimer → CTPA
- Start anticoagulation
- Risk stratify (PESI)

Differentials: PE, Pneumonia, Pneumothorax

5. Pneumothorax

Scenario: A young patient presents with sudden unilateral chest pain and reduced breath sounds.

Answer:

- A–E assessment
- CXR
- Needle decompression if tension
- Chest drain if large

Differentials: Pneumothorax, PE

6. Tension Pneumothorax

Scenario: A patient becomes acutely breathless with hypotension, tracheal deviation, and absent breath sounds on one side.

Answer:

- Immediate A–E
- Emergency needle decompression
- Follow with chest drain
- Oxygen and monitoring

Differentials: Tension pneumothorax, Massive PE

7. Pleural Effusion

Scenario: A 60-year-old presents with breathlessness and stony dullness on percussion.

Answer:

- A–E assessment
- CXR/Ultrasound
- Diagnostic pleural aspiration
- Treat underlying cause

Differentials: Effusion, Pneumonia, Malignancy

8. Acute Respiratory Failure

Scenario: A patient presents with hypoxia and rising CO_2 levels on ABG.

Answer:

- A–E, oxygen therapy
- ABG monitoring
- Treat underlying cause
- Consider NIV or intubation

Differentials: COPD, Pulmonary oedema, Neuromuscular

9. Haemoptysis

Scenario: A 55-year-old presents with coughing up blood and weight loss.

Answer:

- A–E assessment
- CXR, CT chest
- Bloods including clotting
- Urgent respiratory referral

Differentials: Lung cancer, TB, Bronchiectasis

10. COVID-19 / Viral Pneumonitis

Scenario: A patient presents with fever, cough, and hypoxia during viral outbreak.

Answer:

- A–E, oxygen therapy
- CXR
- Bloods including inflammatory markers
- Supportive care ± antivirals/steroids

Differentials: COVID-19, Pneumonia, PE

Neurology

1. Acute Ischaemic Stroke

Scenario: A 72-year-old presents with sudden right-sided weakness and slurred speech for 1 hour.

Answer:

- A–E assessment, check glucose
- Urgent CT head
- Stroke pathway activation (thrombolysis/thrombectomy if eligible)
- Antiplatelet after imaging
- Stroke team referral

Differentials: Ischaemic stroke, Haemorrhagic stroke, TIA

2. Intracranial Haemorrhage

Scenario: A 65-year-old presents with sudden severe headache, vomiting, and reduced consciousness.

Answer:

- A–E, airway protection
- Urgent CT head
- Reverse anticoagulation if needed
- Neurosurgical referral
- ICU involvement

Differentials: Intracranial bleed, SAH, Stroke

3. Seizure (Generalised Tonic-Clonic)

Scenario: A patient is brought in actively seizing.

Answer:

- A–E, protect airway
- IV benzodiazepine
- Check glucose
- Bloods and consider CT
- Escalate if status epilepticus

Differentials: Epilepsy, Hypoglycaemia, Alcohol withdrawal

4. Status Epilepticus

Scenario: A patient continues seizing >5 minutes or recurrent seizures without recovery.

Answer:

- A–E, airway protection
- IV benzodiazepine → second-line (levetiracetam/phenytoin)
- ICU involvement if ongoing
- Identify underlying cause

Differentials: Status epilepticus, CNS infection

5. Meningitis

Scenario: A 30-year-old presents with fever, headache, neck stiffness, and photophobia.

Answer:

- A–E assessment
- IV antibiotics immediately
- Blood cultures

- CT head if indicated → lumbar puncture

Differentials: Meningitis, Encephalitis

6. Encephalitis

Scenario: A patient presents with confusion, fever, and altered behaviour.

Answer:

- A–E
- Bloods, CT head
- Lumbar puncture
- Start IV acyclovir
- Neurology input

Differentials: Encephalitis, Meningitis, Delirium

7. Transient Ischaemic Attack (TIA)

Scenario: A 68-year-old has transient left-sided weakness lasting 20 minutes, now resolved.

Answer:

- A–E assessment
- Urgent CT head
- Start aspirin
- TIA clinic referral within 24 hours
- Risk stratification

Differentials: TIA, Stroke, Migraine

8. Subarachnoid Haemorrhage

Scenario: A 50-year-old presents with sudden “worst headache of life” and neck stiffness.

Answer:

- A–E
- Urgent CT head
- Lumbar puncture if CT negative
- Neurosurgical referral
- BP control

Differentials: SAH, Migraine, Meningitis

9. Guillain-Barré Syndrome

Scenario: A patient presents with progressive ascending weakness and reduced reflexes.

Answer:

- A–E assessment
- Monitor respiratory function (FVC)
- Lumbar puncture
- IVIG or plasmapheresis
- Neurology referral

Differentials: GBS, Myasthenia gravis

10. Myasthenia Gravis Crisis

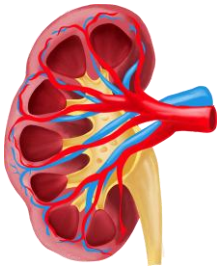
Scenario: A known MG patient presents with worsening weakness and difficulty breathing.

Answer:

- A–E, assess airway and respiratory effort
- ABG, monitor FVC
- Stop triggering medications
- ICU referral
- IVIG or plasmapheresis

Differentials: MG crisis, GBS, Electrolyte imbalance

Nephrology



1. Acute Kidney Injury (Pre-renal)

Scenario: A 75-year-old presents with reduced urine output and recent vomiting/diarrhoea. Bloods show rising creatinine.

Answer:

- A–E assessment, assess volume status
- Stop nephrotoxic drugs (ACEi/NSAIDs)
- Bloods, urine dip, strict fluid balance
- IV fluids for resuscitation
- Monitor U&E and urine output

Differentials: Pre-renal AKI, Sepsis, Obstruction

2. Acute Kidney Injury (Obstructive)

Scenario: A 70-year-old male with urinary retention and rising creatinine.

Answer:

- A–E assessment
- Bladder scan
- Insert urinary catheter
- Renal ultrasound
- Urology referral

Differentials: Obstructive AKI, Prostate enlargement, Stones

3. Hyperkalaemia

Scenario: A patient with renal failure presents with K^+ 6.8 mmol/L and ECG changes.

Answer:

- A–E, cardiac monitoring
- IV calcium gluconate
- Insulin + dextrose
- Nebulised salbutamol
- Consider dialysis

Differentials: Renal failure, Drug-induced

4. Chronic Kidney Disease

Scenario: A patient with long-standing diabetes presents with gradually worsening renal function.

Answer:

- Assess stage of CKD
- Bloods, urine ACR
- Control BP and glucose
- Avoid nephrotoxins
- Nephrology referral

Differentials: CKD, Diabetic nephropathy

5. Nephrotic Syndrome

Scenario: A patient presents with oedema, proteinuria, and hypoalbuminaemia.

Answer:

- Urine protein quantification
- Bloods (albumin, lipids)
- Manage oedema (diuretics)
- Anticoagulation risk assessment
- Nephrology referral

Differentials: Nephrotic syndrome, Liver disease

6. Nephritic Syndrome

Scenario: A patient presents with haematuria, hypertension, and reduced renal function.

Answer:

- Bloods, urine dip (RBCs)
- Monitor BP
- Renal function monitoring
- Refer to nephrology
- Consider immunological tests

Differentials: Nephritic syndrome, Vasculitis

8. Hyponatraemia

Scenario: A patient presents with confusion, Na^+ 118 mmol/L.

Answer:

- A–E assessment
- Assess volume status
- Bloods and urine osmolality
- Slow sodium correction
- Treat underlying cause

Differentials: SIADH, Dehydration

9. Dialysis Complication

Scenario: A dialysis patient presents with hypotension during session.

Answer:

- A–E assessment
- Stop dialysis
- IV fluids
- Monitor vitals
- Review dialysis prescription

Differentials: Dialysis-related hypotension, Sepsis

10. Uraemia

Scenario: A patient with advanced CKD presents with confusion and pericardial rub.

Answer:

- A–E assessment
- Bloods (urea, creatinine)
- ECG
- Urgent dialysis
- Nephrology input

Differentials: Uraemia, Electrolyte imbalance

Elderly / Geriatric Medicine

1. Delirium (Acute Confusion)

Scenario: An 82-year-old presents with acute confusion, agitation, and fluctuating consciousness over 2 days.

Answer:

- A–E assessment
- Check glucose, oxygenation
- Bloods, urine, CXR to identify cause
- Review medications
- Treat underlying cause and provide supportive care

Differentials: Delirium, Dementia, Infection

2. Falls with Possible Injury

Scenario: An 85-year-old found on the floor after a fall, complaining of hip pain.

Answer:

- A–E assessment
- Assess for head injury and fractures
- X-ray hip, bloods
- Analgesia

- MDT involvement and falls assessment

Differentials: Fragility fracture, Syncope, Stroke

3. Frailty and Functional Decline

Scenario: An 88-year-old with reduced mobility and inability to perform activities of daily living.

Answer:

- Comprehensive geriatric assessment (CGA)
- Assess physical, cognitive, and social factors
- Bloods, medication review
- MDT involvement (physio, OT, social services)
- Care planning

Differentials: Frailty, Depression, Chronic disease

4. Polypharmacy and Adverse Drug Reaction

Scenario: An elderly patient presents with confusion and dizziness after starting new medications.

Answer:

- A–E assessment
- Medication review
- Stop/reduce offending drugs
- Bloods
- Monitor and reassess

Differentials: Drug toxicity, Delirium, Electrolyte imbalance

5. Dementia with Behavioural Disturbance

Scenario: A 78-year-old with known dementia presents with agitation and aggression.

Answer:

- A–E assessment
- Identify triggers (pain, infection)
- Non-pharmacological management
- Consider medication if severe
- MDT involvement

Differentials: Dementia, Delirium, Depression

6. Acute Urinary Retention

Scenario: An 80-year-old presents with lower abdominal pain and inability to pass urine.

Answer:

- A–E assessment
- Bladder scan

- Catheterisation
- Bloods and urine
- Urology referral

Differentials: BPH, Constipation, Neurogenic bladder

7. Pressure Ulcers

Scenario: A bed-bound elderly patient presents with sacral skin breakdown.

Answer:

- A–E assessment
- Assess severity of ulcer
- Pressure relief measures
- Wound care
- Nutritional assessment

Differentials: Pressure ulcer, Skin infection

8. Dehydration

Scenario: An elderly patient presents with confusion and reduced oral intake.

Answer:

- A–E assessment
- Assess fluid status
- Bloods (U&E)
- Oral/IV fluids
- Monitor

Differentials: Dehydration, Sepsis

9. End-of-Life Care

Scenario: A frail elderly patient with advanced disease deteriorating with poor prognosis.

Answer:

- A–E assessment
- Recognise dying phase
- Symptom control (pain, breathlessness)
- Discuss goals of care with family
- Palliative care referral

Differentials: End-of-life, Reversible illness

10. Syncope in Elderly

Scenario: A 79-year-old presents after transient loss of consciousness.

Answer:

- A–E assessment
- ECG, lying/standing BP
- Bloods
- Identify cause and risk stratify

Differentials: Syncope, Arrhythmia, Orthostatic hypotension

Acute & Emergency Medicine

1. Polytrauma (Road Traffic Accident)

Scenario: A 30-year-old is brought in after an RTA with reduced consciousness (GCS 10), tachycardia, and hypotension.

Answer:

- Primary survey (A–E) with cervical spine protection
- Secure airway ± intubation
- Control bleeding, IV access, fluid/blood resuscitation
- Trauma CT (pan-scan)
- Activate major trauma team

Differentials: Polytrauma, Internal haemorrhage, Head injury

2. Cardiac Arrest

Scenario: A patient collapses in ED, unresponsive, no pulse.

Answer:

- Start CPR immediately
- Attach defibrillator, follow ALS algorithm
- Identify reversible causes (4 Hs & 4 Ts)
- Continue resuscitation with team leadership

Differentials: MI, PE, Arrhythmia

3. Anaphylaxis

Scenario: A patient develops sudden breathing difficulty, hypotension, and rash after exposure to allergen.

Answer:

- A–E assessment
- IM adrenaline immediately
- High-flow oxygen, IV fluids
- Antihistamines and steroids
- Monitor and escalate if needed

Differentials: Anaphylaxis, Asthma, Sepsis

4. Septic Shock

Scenario: A patient presents with fever, hypotension, tachycardia, and reduced urine output.

Answer:

- A–E assessment wit fluid resuscitation
- Sepsis 6 within 1 hour
- IV fluids and antibiotics
- Lactate monitoring
- ICU escalation

Differentials: Septic shock, Hypovolaemia

5. Diabetic Ketoacidosis (DKA)

Scenario: A young patient presents with vomiting, abdominal pain, and high glucose.

Answer:

- A–E assessment
- Confirm DKA (glucose, ketones, ABG)
- IV fluids, insulin infusion
- Monitor potassium
- Follow DKA protocol

Differentials: DKA, HHS

6. Acute Stroke

Scenario: A patient presents with sudden facial droop and limb weakness.

Answer:

- A–E, check glucose
- FAST assessment
- Urgent CT head

- Thrombolysis pathway
- Stroke team referral

Differentials: Stroke, TIA, Hypoglycaemia

7. Tension Pneumothorax

Scenario: A patient presents with acute SOB, hypotension, tracheal deviation, and absent breath sounds.

Answer:

- Immediate A–E
- Needle decompression
- Chest drain insertion
- Oxygen and monitoring

Differentials: Tension pneumothorax, Massive PE

8. Acute GI Bleed (Massive)

Scenario: A patient presents with haematemesis, hypotension, and tachycardia.

Answer:

- A–E assessment, 2 large-bore IV access
- Bloods, crossmatch
- Fluid resuscitation ± blood transfusion
- IV PPI ± terlipressin
- Urgent endoscopy

Differentials: Variceal bleed, PUD

9. Acute Confusion (Undifferentiated)

Scenario: An elderly patient presents with sudden confusion and agitation.

Answer:

- A–E assessment
- Check glucose
- Bloods, urine, CXR
- Identify underlying cause
- Treat and monitor

Differentials: Delirium, Infection, Metabolic

10. Status Epilepticus

Scenario: A patient continues to have seizures for >5 minutes.

Answer:

- A–E, airway protection
- IV benzodiazepine
- Second-line anti-epileptics
- ICU involvement if refractory

Differentials: Status epilepticus, CNS infection

Same Day Care Management

1. Low-Risk Chest Pain (Rule-Out ACS)

Scenario: A 50-year-old presents with intermittent chest pain for 1 day, currently pain-free, normal observations, and normal ECG.

Answer:

- A–E assessment, ECG
- Bloods including serial troponins
- Risk stratification (HEART score)
- If low risk, discharge with safety-netting and outpatient follow-up

Differentials: ACS, Musculoskeletal pain, GERD, Anxiety

2. Low-Risk Pulmonary Embolism

Scenario: A 45-year-old presents with pleuritic chest pain, stable observations, no hypoxia.

Answer:

- A–E assessment
- Wells score
- D-dimer → CTPA if indicated
- Start DOAC if confirmed and low-risk (PESI)
- If low risk → start DOAC and manage via ambulatory PE pathway with follow-up

Differentials: PE, Pneumonia, Musculoskeletal pain

3. New-Onset Atrial Fibrillation (Stable)

Scenario: A 65-year-old presents with palpitations, HR 120, stable BP.

Answer:

- A–E, ECG confirmation
- Rate control (beta-blocker/diltiazem)
- Bloods including TFTs
- Assess CHA_2DS_2-VASc → anticoagulation
- Discharge with follow-up

Differentials: AF, SVT, Anxiety

4. Cellulitis (Ambulatory)

Scenario: A 60-year-old presents with red, swollen, painful leg, stable observations.

Answer:

- A–E assessment and exclude sepsis
- Clinical diagnosis and assess severity (Eron classification)
- Exclude DVT (Wells score ± Doppler if indicated)
- Start oral or IV antibiotics via SDEC pathway
- Limb elevation, mark margins, and arrange 24–48h review

Differentials: Cellulitis, DVT, Insect bite, Necrotising fasciitis

5. Transient Ischaemic Attack (TIA)

Scenario: A 70-year-old with transient unilateral weakness lasting 15 minutes, now resolved.

Answer:

- A–E assessment
- CT head
- Start aspirin
- Urgent TIA clinic referral (within 24 hours)
- Risk stratification

Differentials: TIA, Stroke, Migraine

6. Syncope (Low Risk)

Scenario: A 40-year-old presents with brief loss of consciousness, rapid recovery, normal observations.

Answer:

A–E, ECG

- Lying/standing BP

- Bloods (glucose, Hb)
- Identify cause and risk stratify
- Discharge with advice

Differentials: Vasovagal, Arrhythmia, Orthostatic hypotension

7. Mild Acute Kidney Injury

Scenario: A patient referred with raised creatinine but clinically stable.

Answer:

- Assess fluid status
- Stop nephrotoxic drugs
- Bloods, urine dip
- Oral/IV fluids
- Arrange repeat bloods and follow-up

Differentials: AKI, Dehydration, Drug-induced

8. Pyelonephritis (Stable)

Scenario: A 35-year-old presents with fever and flank pain but stable observations.

Answer:

- Urine dip and culture
- Bloods
- Start antibiotics (oral/IV)
- Assess for sepsis
- Ambulatory follow-up

Differentials: Pyelonephritis, Renal colic, Cystitis

9. Deep Vein Thrombosis

Scenario: A patient presents with unilateral leg swelling and pain.

Answer:

- Wells score
- Doppler ultrasound
- Start anticoagulation if confirmed
- Discharge with follow-up

Differentials: DVT, Cellulitis, Muscle strain

10. Mild Upper GI Bleed (Stable)

Scenario: A patient presents with melaena, haemodynamically stable, normal Hb.

Answer:

- A–E assessment
- Bloods including Hb and clotting
- Risk stratify (Glasgow-Blatchford score)
- Start PPI
- Arrange outpatient endoscopy and discharge if low risk

Differentials: PUD, Gastritis, Mallory-Weiss tear

Gastroenterology

1. Upper GI Bleed

Scenario: A 55-year-old presents with haematemesis and melaena, feeling dizzy but haemodynamically stable.

Answer:

- A–E assessment, 2 large-bore IV access
- Bloods: FBC, U&E, clotting, crossmatch
- IV fluids ± blood transfusion if needed
- Start IV PPI ± terlipressin if variceal suspected
- Risk stratify and arrange urgent endoscopy

Differentials: Peptic ulcer disease, Oesophageal varices, Gastritis, Mallory-Weiss tear

2. Acute Pancreatitis

Scenario: A 45-year-old presents with severe epigastric pain radiating to the back with vomiting.

Answer:

- A–E assessment
- Bloods (amylase/lipase, LFTs)
- IV fluids and analgesia
- Assess severity (Glasgow score)
- CT if diagnosis unclear or severe

Differentials: Pancreatitis, Peptic ulcer disease, MI

3. Acute Cholecystitis

Scenario: A 60-year-old presents with right upper quadrant pain, fever, and positive Murphy's sign.

Answer:

- A–E assessment
- Bloods (FBC, LFTs, CRP)
- Ultrasound abdomen
- IV antibiotics and analgesia
- Surgical referral

Differentials: Cholecystitis, Biliary colic, Hepatitis

4. Acute Cholangitis

Scenario: A patient presents with fever, jaundice, and right upper quadrant pain.

Answer:

- A–E assessment
- Blood cultures and bloods
- IV antibiotics
- Urgent imaging (US/CT)
- ERCP for biliary drainage

Differentials: Cholangitis, Cholecystitis, Hepatitis

5. Lower GI Bleed

Scenario: A 70-year-old presents with fresh rectal bleeding, stable observations.

Answer:

- A–E assessment
- Bloods and crossmatch
- Colonoscopy referral
- Fluid resuscitation if needed
- Monitor Hb

Differentials: Diverticular disease, Colorectal cancer, Haemorrhoids

6. Liver Cirrhosis with Ascites

Scenario: A patient with known liver disease presents with abdominal distension.

Answer:

- A–E assessment
- Diagnostic ascitic tap

- Bloods (LFTs, clotting)
- Salt restriction + diuretics
- Monitor for complications

Differentials: Cirrhosis, Malignancy

7. Spontaneous Bacterial Peritonitis (SBP)

Scenario: A cirrhotic patient presents with fever and abdominal pain.

Answer:

- A–E assessment
- Ascitic fluid analysis
- IV antibiotics
- Albumin infusion
- Monitor closely

Differentials: SBP, Secondary peritonitis

8. Hepatic Encephalopathy

Scenario: A patient with cirrhosis presents with confusion and asterixis.

Answer:

- A–E assessment
- Identify precipitating cause
- Lactulose ± rifaximin
- Bloods (ammonia not essential)
- Supportive care

Differentials: Hepatic encephalopathy, Delirium

9. Acute Hepatitis

Scenario: A patient presents with jaundice, fatigue, and deranged LFTs.

Answer:

- A–E assessment
- Bloods (LFTs, viral screen)
- Supportive management
- Avoid hepatotoxic drugs
- Specialist referral

Differentials: Viral hepatitis, Drug-induced, Alcoholic hepatitis

10. Inflammatory Bowel Disease Flare

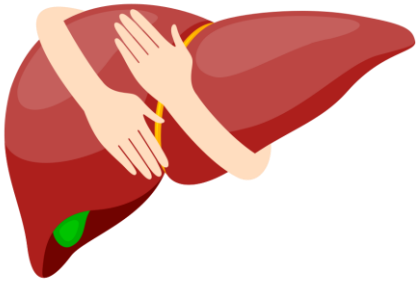
Scenario: A patient with known ulcerative colitis presents with bloody diarrhoea and abdominal pain.

Answer:

- A–E assessment
- Bloods and stool tests
- Assess severity
- IV steroids
- Gastroenterology referral

Differentials: IBD flare, Infective colitis

Hepatology



1. Decompensated Liver Cirrhosis

Scenario: A 58-year-old with known alcohol-related cirrhosis presents with abdominal distension, jaundice, and confusion.

Answer:

- A–E assessment
- Bloods (LFTs, clotting, U&E), ammonia if needed
- Ascitic tap (diagnostic)
- Manage complications: lactulose for encephalopathy, diuretics for ascites
- Early senior and hepatology referral

Differentials: Decompensated cirrhosis, Sepsis, Hepatic encephalopathy

2. Ascites (New Onset)

Scenario: A patient presents with progressive abdominal swelling and discomfort.

Answer:

- A–E assessment
- Ultrasound abdomen
- Diagnostic ascitic tap (SAAG)
- Start diuretics and salt restriction
- Identify underlying cause

Differentials: Cirrhosis, Malignancy, Heart failure

3. Spontaneous Bacterial Peritonitis (SBP)

Scenario: A cirrhotic patient presents with fever, abdominal pain, and worsening ascites.

Answer:

- A–E assessment
- Urgent ascitic fluid analysis
- IV antibiotics
- Albumin infusion
- Monitor for sepsis

Differentials: SBP, Secondary peritonitis

4. Hepatic Encephalopathy

Scenario: A patient with liver disease presents with confusion, drowsiness, and asterixis.

Answer:

- A–E assessment
- Identify precipitating causes (infection, GI bleed)
- Start lactulose ± rifaximin
- Bloods including U&E
- Supportive care

Differentials: Hepatic encephalopathy, Delirium, Sepsis

5. Acute Liver Failure

Scenario: A 35-year-old presents with jaundice, coagulopathy, and altered mental status.

Answer:

- A–E assessment
- Bloods (LFTs, INR, glucose)
- Identify cause (paracetamol, viral)
- IV N-acetylcysteine if indicated
- Urgent transfer to liver centre

Differentials: Acute liver failure, Sepsis

6. Variceal Upper GI Bleed

Scenario: A patient with cirrhosis presents with massive haematemesis and hypotension.

Answer:

- A–E, 2 large-bore IV access
- Bloods and crossmatch

- IV fluids and blood transfusion
- Terlipressin + antibiotics
- Urgent endoscopy

Differentials: Variceal bleed, Peptic ulcer

7. Alcoholic Hepatitis

Scenario: A heavy alcohol user presents with jaundice, fever, and tender hepatomegaly.

Answer:

- A–E assessment
- Bloods (LFTs, clotting)
- Assess severity (Maddrey score)
- Supportive care ± steroids
- Alcohol cessation support

Differentials: Alcoholic hepatitis, Viral hepatitis

8. Portal Hypertension

Scenario: A patient with cirrhosis presents with splenomegaly and varices.

Answer:

- A–E assessment
- Bloods
- Endoscopy for varices
- Beta-blockers for prevention
- Monitor complications

Differentials: Portal hypertension, Cirrhosis

9. Drug-Induced Liver Injury

Scenario: A patient develops jaundice after starting new medication.

Answer:

- A–E assessment
- Bloods (LFTs)
- Stop offending drug
- Monitor liver function
- Specialist referral

Differentials: Drug-induced injury, Viral hepatitis

10. Hepatocellular Carcinoma

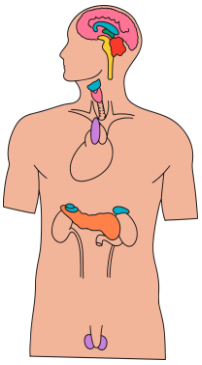
Scenario: A patient with cirrhosis presents with weight loss and worsening liver function.

Answer:

- A–E assessment
- Bloods including AFP
- Imaging (US/CT/MRI)
- MDT referral
- Palliative vs curative planning

Differentials: HCC, Metastasis

Endocrinology



1. Diabetic Ketoacidosis (DKA)

Scenario: A 25-year-old with type 1 diabetes presents with vomiting, abdominal pain, and confusion. Blood glucose is 25 mmol/L and ketones are elevated.

Answer:

- A–E assessment
- Confirm DKA (glucose, ketones, ABG)
- IV fluids + fixed-rate insulin infusion
- Monitor potassium closely
- Identify and treat precipitating cause

Differentials: DKA, HHS

2. Hyperosmolar Hyperglycaemic State (HHS)

Scenario: An elderly patient with type 2 diabetes presents with severe dehydration, confusion, and glucose >30 mmol/L without ketosis.

Answer:

- A–E assessment

- IV fluids (slow correction)
- Monitor osmolality
- Insulin infusion (after fluids)
- Monitor electrolytes

Differentials: HHS, DKA

3. Hypoglycaemia

Scenario: A diabetic patient presents with confusion and sweating, capillary glucose 2.5 mmol/L.

Answer:

- A–E assessment
- Give IV dextrose or IM glucagon
- Recheck glucose
- Identify cause (medication, missed meals)
- Adjust treatment

Differentials: Hypoglycaemia, Stroke, Seizure

4. Thyroid Storm

Scenario: A patient with known hyperthyroidism presents with fever, tachycardia, agitation, and confusion.

Answer:

- A–E assessment
- Beta-blocker (propranolol)
- Antithyroid drugs (PTU/carbimazole)
- Steroids
- IV fluids and cooling

Differentials: Thyroid storm, Sepsis

5. Myxoedema Coma

Scenario: An elderly patient presents with hypothermia, bradycardia, and reduced consciousness.

Answer:

- A–E assessment
- IV levothyroxine
- IV hydrocortisone
- Warm patient
- ICU involvement

Differentials: Myxoedema coma, Sepsis

6. Addisonian Crisis

Scenario: A patient presents with hypotension, vomiting, abdominal pain, and hyperpigmentation history.

Answer:

- A–E assessment
- IV hydrocortisone immediately
- IV fluids
- Bloods (cortisol, electrolytes)
- Treat precipitating cause

Differentials: Addisonian crisis, Septic shock

7. Hypercalcaemia

Scenario: A patient presents with confusion, constipation, and dehydration. Calcium is elevated.

Answer:

- A–E assessment
- IV fluids
- Check PTH
- Consider bisphosphonates
- Monitor ECG

Differentials: Hypercalcaemia (malignancy), Hyperparathyroidism

8. Hypocalcaemia

Scenario: A patient presents with tingling, muscle cramps, and positive Chvostek's sign.

Answer:

- A–E assessment
- IV calcium gluconate if severe
- Check magnesium
- Oral calcium and vitamin D

Differentials: Hypocalcaemia, Hypoparathyroidism

9. SIADH (Hyponatraemia)

Scenario: A patient presents with confusion and Na^+ 118 mmol/L.

Answer:

- A–E assessment
- Assess fluid status

- Fluid restriction
- Monitor sodium carefully
- Treat underlying cause

Differentials: SIADH, Dehydration

10. Cushing's Syndrome

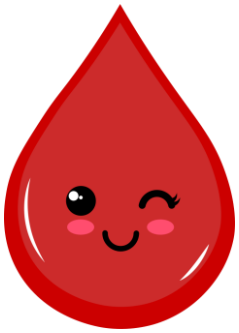
Scenario: A patient presents with weight gain, moon face, and hypertension.

Answer:

- A–E (if acute issue)
- Blood tests (cortisol levels)
- Dexamethasone suppression test
- Imaging
- Endocrinology referral

Differentials: Cushing's syndrome, Steroid use

Haematology



1. Acute Leukaemia

Scenario: A 45-year-old presents with fatigue, bruising, recurrent infections, and pancytopenia on blood tests.

Answer:

- A–E assessment
- Bloods (FBC, blood film)
- Bone marrow biopsy
- Start supportive care (transfusion, antibiotics if neutropenic)
- Urgent haematology referral

Differentials: Acute leukaemia, Aplastic anaemia

2. Neutropenic Sepsis

Scenario: A chemotherapy patient presents with fever and neutrophils <0.5.

Answer:

- A–E assessment
- Sepsis 6 immediately
- Broad-spectrum IV antibiotics within 1 hour
- Blood cultures
- Monitor closely

Differentials: Neutropenic sepsis, Infection

3. Iron Deficiency Anaemia

Scenario: A patient presents with fatigue and low Hb with microcytic indices.

Answer:

- A–E (if stable, focused)
- Bloods (iron studies)
- Identify cause (GI loss, diet)
- Iron replacement
- Investigate underlying cause

Differentials: IDA, Thalassaemia

4. Haemolytic Anaemia

Scenario: A patient presents with jaundice, fatigue, and raised LDH.

Answer:

- A–E assessment
- Bloods (LDH, bilirubin, Coombs test)
- Treat underlying cause
- Transfusion if severe
- Haematology referral

Differentials: Haemolysis, Liver disease

5. Sickle Cell Crisis

Scenario: A patient presents with severe bone pain and known sickle cell disease.

Answer:

- A–E assessment
- Oxygen if hypoxic
- IV fluids
- Strong analgesia

- Treat triggers (infection)

Differentials: Sickle crisis, Infection

6. Thrombocytopenia

Scenario: A patient presents with petechiae and low platelet count.

Answer:

- A–E assessment
- Bloods (platelets, clotting)
- Identify cause
- Platelet transfusion if severe
- Specialist referral

Differentials: ITP, Bone marrow failure

7. Deep Vein Thrombosis

Scenario: A patient presents with unilateral leg swelling and pain.

Answer:

- A–E assessment
- Wells score
- Doppler ultrasound
- Anticoagulation

Differentials: DVT, Cellulitis

8. Pulmonary Embolism

Scenario: A patient presents with sudden shortness of breath and chest pain.

Answer:

- A–E assessment
- Wells score
- D-dimer/CTPA
- Anticoagulation
- Thrombolysis if unstable

Differentials: PE, MI

9. Disseminated Intravascular Coagulation (DIC)

Scenario: A critically ill patient presents with bleeding and abnormal clotting.

Answer:

- A–E assessment
- Bloods (clotting, fibrinogen)
- Treat underlying cause
- Blood product support
- ICU involvement

Differentials: DIC, Liver failure

10. Multiple Myeloma

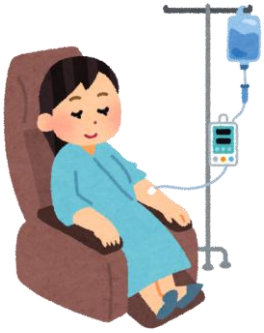
Scenario: A patient presents with bone pain, anaemia, and hypercalcaemia.

Answer:

- A–E assessment
- Bloods (calcium, protein electrophoresis)
- Imaging
- Haematology referral
- Supportive management

Differentials: Myeloma, Metastasis

Oncology



1. Neutropenic Sepsis

Scenario: A 60-year-old undergoing chemotherapy presents with fever (38.5°C), lethargy, and neutrophils <0.5.

Answer:

- A–E assessment
- Sepsis 6 immediately
- Broad-spectrum IV antibiotics within 1 hour
- Blood cultures and bloods
- Admit and monitor closely

Differentials: Neutropenic sepsis, Viral infection

2. Malignant Spinal Cord Compression

Scenario: A cancer patient presents with back pain, progressive leg weakness, and urinary retention.

Answer:

- A–E assessment
- Urgent MRI spine
- Start high-dose IV steroids
- Oncology/neurosurgical referral
- Plan radiotherapy or surgery

Differentials: Cord compression, Disc prolapse

3. Hypercalcaemia of Malignancy

Scenario: A cancer patient presents with confusion, constipation, and dehydration.

Answer:

- A–E assessment
- IV fluids
- Check calcium levels
- IV bisphosphonates
- Monitor ECG

Differentials: Hypercalcaemia, Dehydration

4. Superior Vena Cava (SVC) Obstruction

Scenario: A patient presents with facial swelling, dyspnoea, and distended neck veins.

Answer:

- A–E assessment
- Oxygen
- Urgent CT chest
- Steroids
- Oncology referral for radiotherapy

Differentials: SVC obstruction, Heart failure

5. Tumour Lysis Syndrome

Scenario: A patient starting chemotherapy develops electrolyte imbalance and acute kidney injury.

Answer:

- A–E assessment
- Bloods (K^+, uric acid, phosphate)
- IV fluids

- Allopurinol/rasburicase
- Monitor renal function

Differentials: Tumour lysis, AKI

6. Brain Metastases

Scenario: A cancer patient presents with headache, seizures, and focal neurological deficit.

Answer:

- A–E assessment
- MRI brain
- Start steroids (dexamethasone)
- Oncology referral
- Consider radiotherapy

Differentials: Brain metastases, Primary tumour

7. Cancer Pain Crisis

Scenario: A patient with advanced cancer presents with severe uncontrolled pain.

Answer:

- A–E assessment
- Pain assessment
- Opioid analgesia escalation
- Adjuvant medications
- Palliative care referral

Differentials: Cancer pain, Infection

8. Febrile Neutropenia with Shock

Scenario: A chemotherapy patient presents with fever, hypotension, and tachycardia.

Answer:

- A–E assessment
- Sepsis 6
- IV fluids and antibiotics
- ICU involvement
- Close monitoring

Differentials: Septic shock, Neutropenic sepsis

9. Pathological Fracture

Scenario: A patient presents with fracture after minimal trauma and known malignancy.

Answer:

- A–E assessment
- X-ray
- Analgesia
- Orthopaedic referral
- Oncology input

Differentials: Pathological fracture, Osteoporosis

10. End-of-Life Care (Oncology Patient)

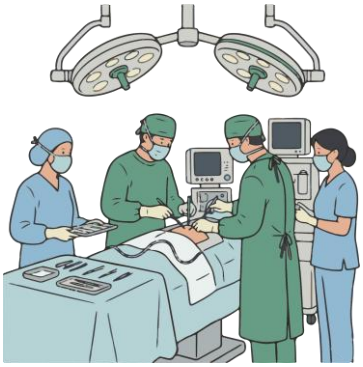
Scenario: A patient with advanced metastatic cancer presents with deterioration and poor prognosis.

Answer:

- A–E assessment
- Recognise dying phase
- Symptom control (pain, breathlessness)
- Discuss goals of care
- Palliative care involvement

Differentials: End-of-life, Reversible complication

General Surgery



1. Acute Appendicitis

Scenario: A 22-year-old presents with 24-hour history of abdominal pain migrating from periumbilical area to right iliac fossa, associated with fever and nausea.

Answer:

- A–E assessment
- Bloods (FBC, CRP), urine dip
- Imaging (US/CT if unclear)
- IV fluids, analgesia, antibiotics
- Surgical referral for appendicectomy

Differentials: Appendicitis, Mesenteric adenitis, Ectopic pregnancy

2. Bowel Obstruction

Scenario: A 70-year-old presents with abdominal distension, vomiting, and absolute constipation.

Answer:

- A–E assessment
- NG tube insertion
- IV fluids and electrolyte correction
- CT abdomen
- Surgical review

Differentials: Bowel obstruction, Ileus

3. Perforated Viscus

Scenario: A patient presents with sudden severe abdominal pain and signs of peritonitis.

Answer:

- A–E assessment
- IV fluids and broad-spectrum antibiotics
- Bloods and lactate
- Urgent CT abdomen
- Emergency surgical intervention

Differentials: Perforation, Pancreatitis

4. Acute Cholecystitis

Scenario: A 60-year-old presents with RUQ pain, fever, and vomiting.

Answer:

- A–E assessment
- Bloods (LFTs, CRP)
- Ultrasound abdomen
- IV antibiotics and analgesia
- Surgical referral

Differentials: Cholecystitis, Biliary colic

5. Incarcerated Hernia

Scenario: A patient presents with painful irreducible groin swelling.

Answer:

- A–E assessment
- Analgesia
- Attempt gentle reduction if appropriate
- Surgical referral urgently
- Monitor for strangulation

Differentials: Hernia, Abscess

6. Testicular Torsion

Scenario: A young male presents with sudden severe testicular pain and swelling.

Answer:

- A–E assessment
- Clinical diagnosis (do not delay)
- Urgent surgical exploration
- Analgesia

Differentials: Torsion, Epididymitis

7. Acute Pancreatitis

Scenario: A patient presents with severe epigastric pain radiating to the back.

Answer:

- A–E assessment
- Bloods (amylase/lipase)
- IV fluids and analgesia
- Assess severity
- Imaging if needed

Differentials: Pancreatitis, MI

8. Necrotising Fasciitis

Scenario: A patient presents with severe pain out of proportion to exam and rapidly spreading skin changes.

Answer:

- A–E assessment
- Broad-spectrum IV antibiotics
- Urgent surgical debridement
- ICU involvement

Differentials: Necrotising fasciitis, Cellulitis

9. Post-Operative Complication (Sepsis)

Scenario: A post-op patient develops fever, tachycardia, and hypotension.

Answer:

- A–E assessment
- Sepsis 6
- Blood cultures
- IV antibiotics and fluids
- Identify source

Differentials: Sepsis, PE

10. Acute Limb Ischaemia

Scenario: A patient presents with sudden cold, painful limb with absent pulses.

Answer:

- A–E assessment
- Start IV heparin
- Urgent vascular referral
- Imaging (CT angiogram)
- Revascularisation

Differentials: Limb ischaemia, DVT

Trauma and ortho

1. Neck of Femur Fracture

Scenario: An 82-year-old presents after a fall with inability to weight bear, shortened and externally rotated leg.

Answer:

- A–E assessment
- Analgesia (consider nerve block)
- X-ray hip
- Bloods and pre-op workup
- Orthopaedic referral for surgery

Differentials: NOF fracture, Hip dislocation, Pelvic fracture

2. Open Fracture

Scenario: A patient presents with a visibly deformed limb and bone exposed after trauma.

Answer:

- A–E assessment
- IV antibiotics immediately
- Tetanus prophylaxis
- Sterile dressing and immobilisation
- Urgent orthopaedic surgery

Differentials: Open fracture, Severe soft tissue injury

3. Compartment Syndrome

Scenario: A patient with limb injury develops severe pain out of proportion and tense swelling.

Answer:

- A–E assessment
- Clinical diagnosis
- Remove constrictive dressings
- Urgent fasciotomy
- Orthopaedic emergency

Differentials: Compartment syndrome, Soft tissue injury

4. Septic Arthritis

Scenario: A patient presents with a hot, swollen joint, fever, and restricted movement.

Answer:

- A–E assessment
- Joint aspiration
- Blood cultures
- IV antibiotics
- Orthopaedic washout

Differentials: Septic arthritis, Gout

5. Cauda Equina Syndrome

Scenario: A patient presents with back pain, saddle anaesthesia, and urinary retention.

Answer:

- A–E assessment
- Urgent MRI spine
- Neurosurgical referral
- Urgent decompression

Differentials: Cauda equina, Disc prolapse

6. Shoulder Dislocation

Scenario: A patient presents with painful shoulder and inability to move arm after trauma.

Answer:

- A–E assessment
- X-ray
- Analgesia/sedation
- Reduction
- Immobilisation and follow-up

Differentials: Dislocation, Fracture

7. Long Bone Fracture

Scenario: A patient presents with deformity and pain in the femur after trauma.

Answer:

- A–E assessment
- Immobilisation
- Analgesia
- X-ray
- Orthopaedic referral

Differentials: Fracture, Soft tissue injury

8. Spinal Injury

Scenario: A trauma patient presents with neck pain and possible neurological deficit.

Answer:

- A–E with spinal immobilisation
- CT/MRI spine
- Neurological assessment
- Neurosurgical referral

Differentials: Spinal fracture, Disc injury

9. Deep Vein Thrombosis (Post-Op)

Scenario: A post-operative patient presents with calf swelling and pain.

Answer:

- A–E assessment
- Wells score
- Doppler ultrasound
- Start anticoagulation

Differentials: DVT, Cellulitis

10. Prosthetic Joint Infection

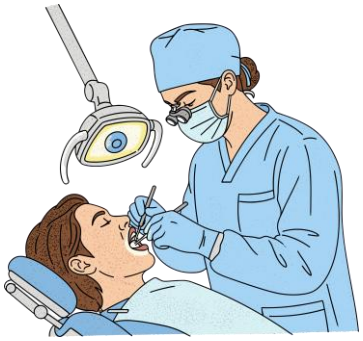
Scenario: A patient with joint replacement presents with pain, swelling, and fever.

Answer:

- A–E assessment
- Bloods and inflammatory markers
- Joint aspiration
- IV antibiotics
- Orthopaedic referral

Differentials: Prosthetic infection, Aseptic loosening

Maxillofacial Surgery



1. Mandibular Fracture

Scenario: A 28-year-old presents after assault with jaw pain, malocclusion, and difficulty opening mouth.

Answer:

- A–E assessment (airway priority)
- Examine for malocclusion and intraoral injuries
- CT facial bones / OPG
- Analgesia, soft diet
- Maxillofacial referral for fixation

Differentials: Mandibular fracture, TMJ injury, Soft tissue injury

2. Orbital Blowout Fracture

Scenario: A patient presents after facial trauma with periorbital swelling, diplopia, and restricted eye movement.

Answer:

- A–E assessment
- Check visual acuity and eye movements
- CT orbit
- Avoid nose blowing
- Maxillofacial/ophthalmology referral

Differentials: Orbital fracture, Soft tissue injury

3. Zygomatic Arch Fracture

Scenario: A patient presents with facial flattening and trismus after trauma.

Answer:

- A–E assessment
- Facial examination
- CT facial bones
- Analgesia
- Surgical referral

Differentials: Zygomatic fracture, Mandibular fracture

4. Dental Abscess with Facial Swelling

Scenario: A patient presents with tooth pain, facial swelling, and fever.

Answer:

- A–E assessment
- Examine oral cavity
- Bloods if systemic signs
- IV antibiotics if severe
- Drainage ± tooth extraction

Differentials: Dental abscess, Cellulitis

5. Ludwig's Angina

Scenario: A patient presents with submandibular swelling, difficulty swallowing, and drooling.

Answer:

- A–E assessment (airway emergency)
- Secure airway early
- IV antibiotics
- Urgent surgical drainage
- ICU involvement

Differentials: Ludwig’s angina, Deep neck infection

6. Epistaxis (Severe)

Scenario: A patient presents with heavy nasal bleeding and dizziness.

Answer:

- A–E assessment
- Apply nasal pressure
- Topical vasoconstrictors
- Nasal packing
- ENT referral if persistent

Differentials: Epistaxis, Coagulopathy

7. Facial Laceration

Scenario: A patient presents with deep facial cut after trauma.

Answer:

- A–E assessment
- Assess for underlying injury
- Clean and irrigate wound
- Suture carefully (cosmetic consideration)
- Tetanus prophylaxis

Differentials: Laceration, Underlying fracture

8. Temporomandibular Joint (TMJ) Dislocation

Scenario: A patient presents with inability to close mouth after yawning.

Answer:

- A–E assessment
- Clinical diagnosis
- Analgesia/sedation
- Manual reduction
- Advice to avoid recurrence

Differentials: TMJ dislocation, Muscle spasm

9. Salivary Gland Infection (Parotitis)

Scenario: A patient presents with painful swelling over parotid region and fever.

Answer:

- A–E assessment
- Examine gland and duct
- Bloods
- Antibiotics
- Hydration and massage

Differentials: Parotitis, Abscess

10. Oral Cancer (Suspicious Lesion)

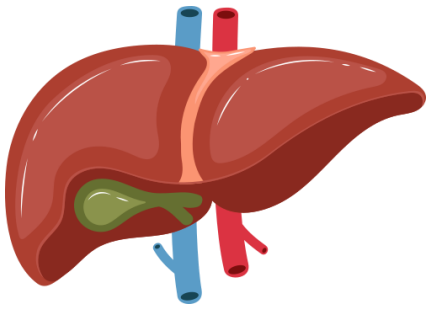
Scenario: A patient presents with non-healing oral ulcer and weight loss.

Answer:

- A–E (if stable, focused exam)
- Full oral examination
- Urgent 2-week wait referral
- Biopsy
- MDT involvement

Differentials: Oral cancer, Ulcer, Infection

Hepato-Biliary (HPB)



1. Acute Cholecystitis

Scenario: A 58-year-old presents with right upper quadrant pain, fever, and vomiting. Murphy's sign is positive.

Answer:

- A–E assessment
- Bloods (FBC, LFTs, CRP)
- Ultrasound abdomen

- IV antibiotics and analgesia
- Surgical referral for cholecystectomy

Differentials: Cholecystitis, Biliary colic, Hepatitis

2. Biliary Colic

Scenario: A 45-year-old presents with episodic RUQ pain after fatty meals, no fever.

Answer:

- A–E assessment
- Bloods and ultrasound
- Analgesia
- Elective surgical referral
- Lifestyle advice

Differentials: Biliary colic, Cholecystitis, Peptic ulcer

3. Acute Cholangitis

Scenario: A patient presents with fever, jaundice, and RUQ pain (Charcot's triad).

Answer:

- A–E assessment
- Blood cultures and bloods
- IV antibiotics
- Urgent imaging (US/CT)
- ERCP for biliary decompression

Differentials: Cholangitis, Cholecystitis, Hepatitis

4. Obstructive Jaundice

Scenario: A patient presents with painless jaundice, dark urine, and pale stools.

Answer:

- A–E assessment
- Bloods (LFTs, bilirubin)
- Ultrasound abdomen
- CT/MRCP
- Refer to HPB team

Differentials: Pancreatic cancer, CBD stone

5. Gallstone Pancreatitis

Scenario: A patient presents with severe epigastric pain radiating to the back and deranged LFTs.

Answer:

- A–E assessment
- Bloods (amylase/lipase, LFTs)
- IV fluids and analgesia
- Ultrasound for gallstones
- Consider ERCP if obstruction

Differentials: Pancreatitis, Peptic ulcer

6. Liver Abscess

Scenario: A patient presents with fever, RUQ pain, and weight loss.

Answer:

- A–E assessment
- Bloods and cultures
- Ultrasound/CT
- IV antibiotics
- Drainage if needed

Differentials: Liver abscess, Malignancy

7. Hepatocellular Carcinoma

Scenario: A patient with cirrhosis presents with weight loss and worsening liver function.

Answer:

- A–E assessment
- Bloods including AFP
- Imaging (US/CT/MRI)
- MDT referral
- Plan treatment (resection/palliative)

Differentials: HCC, Metastasis

8. Biliary Obstruction due to Stone (CBD Stone)

Scenario: A patient presents with jaundice and RUQ pain, no fever.

Answer:

- A–E assessment
- Bloods (LFTs)
- Ultrasound → MRCP
- ERCP for stone removal
- Surgical follow-up

Differentials: CBD stone, Tumour

9. Post-Cholecystectomy Complication

Scenario: A patient presents after surgery with abdominal pain and bile leak.

Answer:

- A–E assessment
- Bloods and imaging (CT)
- IV antibiotics
- Drain collection
- Surgical review

Differentials: Bile leak, Infection

10. Portal Vein Thrombosis

Scenario: A patient presents with abdominal pain and known liver disease.

Answer:

- A–E assessment
- Bloods
- Doppler ultrasound/CT
- Anticoagulation
- Specialist referral

Differentials: Portal vein thrombosis, Cirrhosis complication

Breast Surgery

1. Breast Lump (Suspicious for Malignancy)

Scenario: A 52-year-old woman presents with a painless, hard breast lump with irregular borders and skin dimpling.

Answer:

- A–E (focused assessment as stable)
- Full breast and axillary examination
- Triple assessment: clinical exam, imaging (mammogram/US), biopsy
- Urgent 2-week wait referral
- MDT discussion

Differentials: Breast cancer, Fibroadenoma, Cyst

2. Fibroadenoma (Benign Lump)

Scenario: A 25-year-old woman presents with a mobile, painless breast lump.

Answer:

- Clinical examination
- Ultrasound ± biopsy if uncertain
- Reassure if benign features
- Follow-up if needed

Differentials: Fibroadenoma, Cyst, Malignancy

3. Breast Abscess

Scenario: A lactating woman presents with a painful, red, swollen breast and fever.

Answer:

- A–E assessment
- Clinical examination
- Ultrasound
- Antibiotics
- Incision and drainage if abscess confirmed

Differentials: Abscess, Mastitis

4. Mastitis

Scenario: A breastfeeding woman presents with breast pain, redness, and fever.

Answer:

- Clinical diagnosis
- Continue breastfeeding
- Antibiotics
- Analgesia
- Monitor for abscess

Differentials: Mastitis, Abscess

5. Nipple Discharge (Suspicious)

Scenario: A 48-year-old presents with unilateral bloody nipple discharge.

Answer:

- Clinical examination
- Imaging (mammogram/US)
- Duct evaluation
- Urgent referral
- Biopsy if needed

Differentials: Intraductal papilloma, Breast cancer

6. Inflammatory Breast Cancer

Scenario: A patient presents with red, swollen breast with peau d'orange appearance.

Answer:

- Urgent clinical assessment
- Imaging (mammogram/US)
- Biopsy
- Urgent oncology referral

Differentials: Inflammatory cancer, Mastitis

7. Breast Cyst

Scenario: A woman presents with a fluctuant, tender breast lump that changes with menstrual cycle.

Answer:

- Clinical exam
- Ultrasound
- Aspirate if symptomatic
- Reassure if benign

Differentials: Cyst, Fibroadenoma

8. Post-Surgical Complication (Breast Surgery)

Scenario: A patient presents with wound redness and discharge after breast surgery.

Answer:

- A–E assessment
- Wound examination
- Bloods if needed
- Antibiotics

- Drainage if abscess

Differentials: Wound infection, Seroma

9. Axillary Lump

Scenario: A patient presents with a painless axillary mass.

Answer:

- Clinical examination
- Ultrasound ± biopsy
- Assess breast
- Refer to MDT

Differentials: Lymph node metastasis, Infection

10. Male Breast Lump (Gynaecomastia vs Cancer)

Scenario: A 60-year-old male presents with unilateral breast lump.

Answer:

- Clinical examination
- Imaging (US/mammogram)
- Biopsy
- Refer to specialist

Differentials: Breast cancer, Gynaecomastia

Neurosurgery

1. Acute Subdural Haematoma

Scenario: A 70-year-old presents after a fall with worsening headache and reduced consciousness over several hours.

Answer:

- A–E assessment, airway protection

- Urgent CT head
- Reverse anticoagulation if applicable
- Neurosurgical referral for evacuation
- ICU monitoring

Differentials: Subdural haematoma, Intracranial bleed, Stroke

2. Epidural Haematoma

Scenario: A young patient presents after head injury with brief loss of consciousness followed by a lucid interval and deterioration.

Answer:

- A–E assessment
- Urgent CT head
- Neurosurgical emergency
- Prepare for surgical evacuation
- Close monitoring

Differentials: Epidural haematoma, Subdural haematoma

3. Raised Intracranial Pressure

Scenario: A patient presents with headache, vomiting, reduced consciousness, and papilloedema.

Answer:

- A–E assessment
- Elevate head, maintain oxygenation
- Urgent CT head
- Osmotherapy (mannitol/hypertonic saline)
- Neurosurgical referral

Differentials: Raised ICP, Tumour, Haemorrhage

4. Brain Tumour

Scenario: A patient presents with progressive headaches, seizures, and focal neurological deficit.

Answer:

- A–E assessment
- MRI brain
- Start dexamethasone
- Neurosurgical/oncology referral
- MDT planning

Differentials: Brain tumour, Abscess

5. Cauda Equina Syndrome

Scenario: A patient presents with back pain, saddle anaesthesia, urinary retention, and bilateral leg weakness.

Answer:

- A–E assessment
- Urgent MRI spine
- Immediate neurosurgical referral
- Emergency decompression

Differentials: Cauda equina, Disc prolapse

6. Spinal Cord Compression

Scenario: A patient with cancer presents with back pain and progressive limb weakness.

Answer:

- A–E assessment
- Urgent MRI spine
- Start IV steroids
- Neurosurgical/oncology referral
- Plan decompression

Differentials: Cord compression, Metastasis

7. Subarachnoid Haemorrhage

Scenario: A patient presents with sudden “worst headache of life” and neck stiffness.

Answer:

- A–E assessment
- Urgent CT head
- Lumbar puncture if CT negative
- Neurosurgical referral
- BP control

Differentials: SAH, Migraine, Meningitis

8. Brain Abscess

Scenario: A patient presents with fever, headache, and focal neurological signs.

Answer:

- A–E assessment
- CT/MRI brain

- IV antibiotics
- Neurosurgical drainage if needed

Differentials: Brain abscess, Tumour

9. Hydrocephalus

Scenario: A patient presents with headache, vomiting, and altered consciousness.

Answer:

- A–E assessment
- CT head
- Neurosurgical referral
- Ventricular drainage

Differentials: Hydrocephalus, Raised ICP

10. Traumatic Brain Injury (Severe)

Scenario: A patient presents after trauma with GCS 7.

Answer:

- A–E with airway protection
- Urgent CT head
- ICP management
- Neurosurgical involvement
- ICU admission

Differentials: TBI, Intracranial haemorrhage

Cardiothoracic Surgery

1. Acute Type A Aortic Dissection

Scenario: A 60-year-old presents with sudden tearing chest pain radiating to the back, unequal arm BP, and collapse.

Answer:

- A–E assessment, cardiac monitoring
- Urgent CT aortogram
- Control BP (IV beta-blocker)
- Immediate cardiothoracic surgical referral
- ICU involvement

Differentials: Aortic dissection, ACS, PE

2. Massive Pulmonary Embolism

Scenario: A patient presents with sudden dyspnoea, hypotension, and syncope.

Answer:

- A–E assessment
- Oxygen, IV access
- CTPA (if stable)
- Thrombolysis if unstable
- Consider surgical embolectomy

Differentials: PE, MI, Pneumothorax

3. Post-CABG Complication (Cardiac Tamponade)

Scenario: A post-operative patient develops hypotension, raised JVP, and muffled heart sounds.

Answer:

- A–E assessment
- Urgent echocardiography
- Emergency pericardial drainage
- ICU and surgical involvement

Differentials: Tamponade, Bleeding, Shock

4. Lung Cancer (Operable)

Scenario: A patient presents with cough, weight loss, and haemoptysis.

Answer:

- A–E (if stable, focused exam)
- CXR → CT chest
- Biopsy
- MDT referral
- Surgical resection if suitable

Differentials: Lung cancer, TB, Infection

5. Pneumothorax (Surgical Case)

Scenario: A patient presents with recurrent pneumothorax.

Answer:

- A–E assessment
- CXR
- Chest drain
- Consider VATS surgery
- Follow-up

Differentials: Pneumothorax, Bullous disease

6. Empyema Thoracis

Scenario: A patient presents with fever, pleuritic chest pain, and persistent pleural effusion.

Answer:

- A–E assessment
- CXR/Ultrasound
- Chest drain insertion
- IV antibiotics
- Consider surgical decortication

Differentials: Empyema, Parapneumonic effusion

7. Mediastinal Mass

Scenario: A patient presents with chest pain, cough, and possible SVC obstruction signs.

Answer:

- A–E assessment
- CT chest
- Biopsy
- MDT referral
- Surgical/oncology planning

Differentials: Mediastinal tumour, Lymphoma

8. Pericardial Effusion

Scenario: A patient presents with breathlessness and enlarged cardiac silhouette on CXR.

Answer:

- A–E assessment
- Echocardiography
- Pericardiocentesis if symptomatic

- Treat underlying cause

Differentials: Effusion, Heart failure

9. Post-Lobectomy Complication (Air Leak)

Scenario: A patient post lung surgery has persistent air leak and dyspnoea.

Answer:

- A–E assessment
- Chest drain monitoring
- Imaging
- Surgical review
- Supportive care

Differentials: Air leak, Pneumothorax

10. Thoracic Trauma (Haemothorax)

Scenario: A trauma patient presents with reduced breath sounds and hypotension.

Answer:

- A–E assessment
- Chest X-ray
- Chest drain insertion
- Blood transfusion
- Surgical intervention if ongoing bleed

Differentials: Haemothorax, Pneumothorax

Plastic Surgery

1. Thermal Burn (Moderate–Severe)

Scenario: A 35-year-old presents with flame burns to chest and arms (~20% TBSA), with blistering and pain.

Answer:

- A–E assessment (airway, breathing priority)
- Calculate TBSA and depth
- IV fluids (Parkland formula)
- Analgesia and wound care
- Refer to burns/plastics centre

Differentials: Thermal burn, Chemical burn

2. Chemical Burn

Scenario: A patient presents after acid exposure to the hand with severe pain and skin damage.

Answer:

- A–E assessment
- Immediate copious irrigation
- Remove contaminated clothing
- Assess burn depth
- Plastic surgery referral

Differentials: Chemical burn, Thermal burn

3. Hand Laceration with Tendon Injury

Scenario: A patient presents with deep hand cut and inability to flex fingers.

Answer:

- A–E assessment
- Neurovascular examination
- Wound irrigation
- Tetanus prophylaxis
- Urgent plastics/hand surgery referral

Differentials: Tendon injury, Nerve injury

4. Open Finger Fracture

Scenario: A patient presents with finger injury and exposed bone after trauma.

Answer:

- A–E assessment
- IV antibiotics
- Wound dressing and immobilisation
- X-ray
- Surgical referral

Differentials: Open fracture, Soft tissue injury

5. Skin Cancer (Suspicious Lesion)

Scenario: A patient presents with a non-healing ulcer with irregular borders and bleeding.

Answer:

- Focused assessment
- Dermatoscopic examination
- Urgent 2-week wait referral
- Biopsy
- MDT planning

Differentials: SCC, BCC, Melanoma

6. Necrotising Fasciitis

Scenario: A patient presents with rapidly spreading infection, severe pain, and systemic toxicity.

Answer:

- A–E assessment
- Broad-spectrum IV antibiotics
- Urgent surgical debridement
- ICU involvement

Differentials: Necrotising fasciitis, Cellulitis

7. Pressure Ulcer

Scenario: A bed-bound patient presents with deep sacral ulcer.

Answer:

- A–E assessment
- Grade ulcer severity
- Pressure offloading
- Wound care
- Nutritional support

Differentials: Pressure ulcer, Skin infection

8. Dog Bite Injury

Scenario: A patient presents with deep bite wound to the hand.

Answer:

- A–E assessment
- Thorough wound irrigation
- Antibiotics

- Tetanus ± rabies prophylaxis
- Plastics referral

Differentials: Bite wound, Infection

9. Post-Operative Wound Infection

Scenario: A patient presents with redness, swelling, and discharge after surgery.

Answer:

- A–E assessment
- Wound examination
- Bloods if systemic signs
- Antibiotics
- Drainage if abscess

Differentials: Infection, Seroma

10. Cleft Lip/Palate (Initial Assessment)

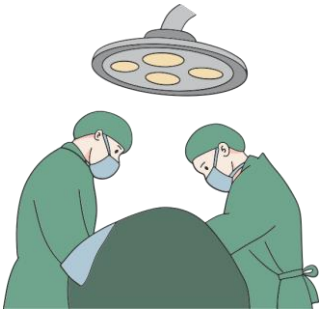
Scenario: A newborn is identified with cleft lip and feeding difficulty.

Answer:

- A–E (ensure airway and feeding)
- Multidisciplinary referral
- Feeding support
- Plan surgical repair
- Parental counselling

Differentials: Cleft lip/palate, Feeding disorder

Vascular Surgery



1. Acute Limb Ischaemia

Scenario: A 68-year-old presents with sudden onset severe leg pain, cold limb, absent pulses, and reduced sensation.

Answer:

- A–E assessment
- Assess 6 Ps (pain, pallor, pulselessness, paralysis, paraesthesia, poikilothermia)
- Start IV heparin immediately
- Urgent vascular referral
- Imaging (CT angiogram) and revascularisation

Differentials: Acute limb ischaemia, DVT, Compartment syndrome

2. Ruptured Abdominal Aortic Aneurysm (AAA)

Scenario: A 75-year-old presents with severe abdominal/back pain, hypotension, and a pulsatile abdominal mass.

Answer:

- A–E assessment
- Permissive hypotension (avoid aggressive fluids)
- Urgent bedside ultrasound
- Immediate vascular surgical referral
- Prepare for emergency surgery

Differentials: Ruptured AAA, Renal colic, Pancreatitis

3. Deep Vein Thrombosis (DVT)

Scenario: A patient presents with unilateral leg swelling, pain, and redness.

Answer:

- A–E assessment
- Wells score
- Doppler ultrasound
- Start anticoagulation
- Assess for PE risk

Differentials: DVT, Cellulitis, Muscle strain

4. Peripheral Arterial Disease (PAD)

Scenario: A patient presents with intermittent claudication relieved by rest.

Answer:

- A–E (focused assessment)
- ABPI measurement
- Risk factor modification
- Antiplatelet therapy
- Vascular referral if severe

Differentials: PAD, Spinal stenosis

5. Critical Limb Ischaemia

Scenario: A patient presents with rest pain, non-healing ulcers, and reduced pulses.

Answer:

- A–E assessment
- Analgesia
- Vascular imaging
- Urgent vascular referral
- Revascularisation planning

Differentials: Critical ischaemia, Diabetic foot

6. Varicose Veins (Complicated)

Scenario: A patient presents with painful varicose veins and skin changes.

Answer:

- Clinical examination
- Duplex ultrasound
- Compression therapy
- Refer for surgical/endovenous treatment

Differentials: Varicose veins, DVT

7. Carotid Artery Stenosis

Scenario: A patient presents with TIA symptoms and carotid bruit.

Answer:

- A–E assessment
- Carotid Doppler ultrasound
- Start antiplatelet therapy
- Refer for carotid endarterectomy

Differentials: Carotid stenosis, Stroke

8. Diabetic Foot Infection

Scenario: A diabetic patient presents with foot ulcer, redness, and discharge.

Answer:

- A–E assessment
- Bloods and cultures

- Antibiotics
- Wound care
- MDT (vascular, diabetes team)

Differentials: Diabetic foot, Cellulitis

9. Compartment Syndrome (Vascular Cause)

Scenario: A patient develops severe limb pain after revascularisation.

Answer:

- A–E assessment
- Clinical diagnosis
- Remove constriction
- Urgent fasciotomy
- Vascular/orthopaedic input

Differentials: Compartment syndrome, Ischaemia

10. AV Fistula Complication (Dialysis Patient)

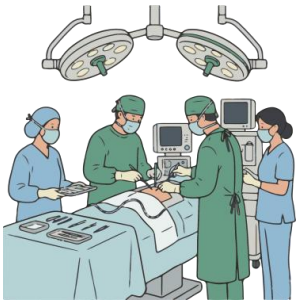
Scenario: A dialysis patient presents with swollen arm and reduced fistula function.

Answer:

- A–E assessment
- Examine fistula (thrill/bruit)
- Doppler ultrasound
- Anticoagulation if thrombosed
- Vascular referral

Differentials: AV fistula thrombosis, Infection

Urology



1. Acute Urinary Retention

Scenario: A 75-year-old man presents with lower abdominal pain and inability to pass urine for 12 hours.

Answer:

- A–E assessment
- Palpate distended bladder
- Insert urinary catheter (relieve retention)
- Bloods (U&E, PSA if indicated later)
- Urology referral and monitor urine output

Differentials: BPH, Prostate cancer, Urethral stricture

2. Renal Colic (Ureteric Stone)

Scenario: A 40-year-old presents with severe flank pain radiating to groin, with nausea and haematuria.

Answer:

- A–E assessment
- Analgesia (NSAIDs first-line)
- Urine dip and bloods
- CT KUB
- Urology referral if obstructed/infected

Differentials: Renal stone, Pyelonephritis

3. Pyelonephritis

Scenario: A patient presents with fever, flank pain, and dysuria.

Answer:

- A–E assessment
- Urine dip and culture
- Bloods
- IV/oral antibiotics
- Assess for sepsis

Differentials: Pyelonephritis, Renal colic

4. Testicular Torsion

Scenario: A 16-year-old presents with sudden severe testicular pain and swelling.

Answer:

- A–E assessment
- Clinical diagnosis (do not delay imaging)
- Urgent surgical exploration
- Analgesia

Differentials: Torsion, Epididymitis

5. Epididymo-Orchitis

Scenario: A patient presents with gradual onset scrotal pain, swelling, and fever.

Answer:

- A–E assessment
- Urine tests
- STI screening if indicated
- Antibiotics
- Scrotal support

Differentials: Epididymo-orchitis, Torsion

6. Haematuria (Visible)

Scenario: A 65-year-old presents with painless visible haematuria.

Answer:

- A–E assessment
- Urine dip and cytology
- Bloods
- Urgent 2-week wait referral
- Imaging (CT urogram) and cystoscopy

Differentials: Bladder cancer, Infection, Stones

7. Prostate Cancer (Suspicion)

Scenario: A patient presents with urinary symptoms and raised PSA.

Answer:

- Clinical examination (DRE)
- Bloods (PSA)
- MRI prostate
- Biopsy
- MDT referral

Differentials: Prostate cancer, BPH

8. Urosepsis

Scenario: A patient presents with fever, hypotension, and urinary symptoms.

Answer:

- A–E assessment
- Sepsis 6
- Blood and urine cultures
- IV antibiotics and fluids

- Urology referral if obstruction

Differentials: Urosepsis, Pyelonephritis

9. Fournier's Gangrene

Scenario: A patient presents with severe genital pain, swelling, and systemic toxicity.

Answer:

- A–E assessment
- Broad-spectrum IV antibiotics
- Urgent surgical debridement
- ICU involvement

Differentials: Fournier's gangrene, Cellulitis

10. Post-Obstructive AKI

Scenario: A patient presents with reduced urine output and bilateral hydronephrosis.

Answer:

- A–E assessment
- Bloods (U&E)
- Catheterisation
- Renal ultrasound
- Urology referral

Differentials: Obstructive AKI, Renal failure

Upper GI Surgery

1. Upper GI Bleed (Peptic Ulcer)

Scenario: A 55-year-old presents with haematemesis and melaena, feeling dizzy but currently haemodynamically stable.

Answer:

- A–E assessment, 2 large-bore IV access

- Bloods: FBC, U&E, clotting, crossmatch
- IV fluids ± blood transfusion
- Start IV PPI
- Risk stratify (Glasgow-Blatchford) and arrange urgent endoscopy

Differentials: Peptic ulcer disease, Varices, Gastritis, Mallory-Weiss tear

2. Massive Upper GI Bleed (Variceal)

Scenario: A patient with known cirrhosis presents with massive haematemesis and hypotension.

Answer:

- A–E, resuscitation, IV access
- Blood transfusion
- Terlipressin + IV antibiotics
- Urgent endoscopy for banding
- ICU involvement

Differentials: Variceal bleed, PUD

3. Oesophageal Cancer

Scenario: A patient presents with progressive dysphagia, weight loss, and odynophagia.

Answer:

- A–E (focused)
- Urgent 2-week wait referral
- OGD with biopsy
- CT staging
- MDT planning

Differentials: Oesophageal cancer, Stricture

4. Gastric Cancer

Scenario: A patient presents with early satiety, weight loss, and anaemia.

Answer:

- A–E (focused)
- Bloods
- Urgent OGD with biopsy
- CT staging
- MDT referral

Differentials: Gastric cancer, Peptic ulcer

5. Dysphagia (Benign vs Malignant)

Scenario: A patient presents with progressive difficulty swallowing solids then liquids.

Answer:

- A–E (if stable)
- Urgent OGD
- Barium swallow if needed
- Biopsy
- Specialist referral

Differentials: Cancer, Stricture, Achalasia

6. Achalasia

Scenario: A patient presents with dysphagia to solids and liquids and regurgitation.

Answer:

- A–E (focused)
- OGD to exclude malignancy
- Manometry
- Pneumatic dilation or surgery
- Follow-up

Differentials: Achalasia, Cancer

7. Perforated Peptic Ulcer

Scenario: A patient presents with sudden severe abdominal pain and peritonitis.

Answer:

- A–E assessment
- IV fluids and antibiotics
- Bloods and lactate
- CT abdomen
- Emergency surgical referral

Differentials: Perforation, Pancreatitis

8. Gastric Outlet Obstruction

Scenario: A patient presents with persistent vomiting, early satiety, and abdominal distension.

Answer:

- A–E assessment
- NG tube decompression
- Bloods and electrolytes

- CT abdomen
- Surgical/gastro referral

Differentials: GOO, Cancer, PUD

9. Hiatus Hernia with Reflux

Scenario: A patient presents with heartburn and regurgitation.

Answer:

- A–E (focused)
- Lifestyle modification
- PPI therapy
- OGD if alarm symptoms
- Surgical referral if severe

Differentials: GERD, Hiatus hernia

10. Barrett's Oesophagus

Scenario: A patient with chronic reflux presents for evaluation of oesophageal changes.

Answer:

- A–E (focused)
- OGD with biopsy
- Surveillance programme
- PPI therapy
- MDT if dysplasia

Differentials: Barrett's, Oesophagitis

Obstetrics & Gynaecology (O&G)

1. Ectopic Pregnancy

Scenario: A 30-year-old presents with lower abdominal pain, vaginal bleeding, and positive pregnancy test.

Answer:

- A–E assessment
- Check haemodynamic stability
- Bloods (FBC, β-hCG)
- Transvaginal ultrasound
- Urgent gynaecology referral ± surgical management

Differentials: Ectopic pregnancy, Miscarriage, Ovarian cyst

2. Miscarriage (Early Pregnancy Loss)

Scenario: A pregnant woman presents with vaginal bleeding and abdominal cramps at 10 weeks.

Answer:

- A–E assessment
- Bloods and β-hCG
- Ultrasound
- Conservative/medical/surgical management
- Emotional support

Differentials: Miscarriage, Ectopic pregnancy

3. Pre-eclampsia

Scenario: A pregnant woman presents with headache, hypertension, and proteinuria.

Answer:

- A–E assessment
- Monitor BP and urine
- Bloods (LFTs, platelets)
- Start antihypertensives
- Obstetric referral

Differentials: Pre-eclampsia, Gestational hypertension

4. Postpartum Haemorrhage

Scenario: A woman develops heavy bleeding after delivery.

Answer:

- A–E assessment
- Call for help (PPH protocol)

- IV access, fluids, blood
- Uterotonics
- Identify cause (4 Ts)

Differentials: PPH, Retained placenta

5. Placental Abruption

Scenario: A pregnant woman presents with abdominal pain and vaginal bleeding.

Answer:

- A–E assessment
- Continuous fetal monitoring
- Bloods and crossmatch
- Urgent obstetric review
- Consider emergency delivery

Differentials: Abruption, Placenta previa

6. Placenta Previa

Scenario: A pregnant woman presents with painless vaginal bleeding.

Answer:

- A–E assessment
- Avoid vaginal exam
- Ultrasound
- Obstetric referral
- Plan delivery

Differentials: Placenta previa, Abruption

7. Ovarian Torsion

Scenario: A woman presents with sudden severe lower abdominal pain and vomiting.

Answer:

- A–E assessment
- Ultrasound pelvis
- Analgesia
- Urgent surgical referral

Differentials: Ovarian torsion, Ectopic pregnancy

8. Pelvic Inflammatory Disease (PID)

Scenario: A woman presents with lower abdominal pain, fever, and vaginal discharge.

Answer:

- A–E assessment
- STI screening
- Antibiotics
- Analgesia
- Follow-up

Differentials: PID, Ectopic pregnancy

9. Menorrhagia

Scenario: A woman presents with heavy menstrual bleeding and fatigue.

Answer:

- A–E (if stable, focused)
- Bloods (Hb)
- Pelvic ultrasound
- Medical management (tranexamic acid, hormones)
- Referral if needed

Differentials: Menorrhagia, Fibroids

10. Labour Complication (Fetal Distress)

Scenario: A woman in labour develops abnormal CTG with fetal distress.

Answer:

- A–E (maternal assessment)
- Continuous CTG monitoring
- Left lateral position
- Oxygen and fluids
- Urgent obstetric intervention (instrumental/CS)

Differentials: Fetal distress, Normal labour variation

Pediatrics

1. Acute Asthma Exacerbation (Child)

Scenario: A 7-year-old presents with worsening shortness of breath, wheeze, and inability to complete sentences.

Answer:

- A–E assessment, high-flow oxygen
- Nebulised salbutamol ± ipratropium
- Oral/IV steroids
- Monitor response and escalate if severe

Differentials: Asthma, Anaphylaxis, Foreign body aspiration

2. Bronchiolitis

Scenario: A 6-month-old presents with cough, poor feeding, and respiratory distress.

Answer:

- A–E assessment
- Oxygen if hypoxic
- Supportive care (fluids, feeding support)
- Monitor for apnoea

Differentials: Bronchiolitis, Pneumonia

3. Febrile Seizure

Scenario: A 2-year-old presents with a generalised seizure associated with fever.

Answer:

- A–E assessment
- Check glucose
- Stop seizure if ongoing (benzodiazepine)
- Identify infection source
- Reassure parents

Differentials: Febrile seizure, Epilepsy

4. Sepsis (Child)

Scenario: A child presents with fever, tachycardia, lethargy, and poor perfusion.

Answer:

- A–E assessment
- Sepsis 6 adapted for paediatrics
- Blood cultures
- IV antibiotics and fluids
- Escalate to PICU if needed

Differentials: Sepsis, Viral illness

5. Dehydration (Gastroenteritis)

Scenario: A 3-year-old presents with diarrhoea, vomiting, and reduced urine output.

Answer:

- A–E assessment
- Assess dehydration severity
- Oral rehydration or IV fluids
- Monitor electrolytes

Differentials: Dehydration, Sepsis

6. Diabetic Ketoacidosis (Child)

Scenario: A child presents with polyuria, vomiting, and drowsiness.

Answer:

- A–E assessment
- Confirm DKA
- IV fluids and insulin
- Monitor potassium
- Paediatric protocol

Differentials: DKA, Sepsis

7. Meningitis

Scenario: A child presents with fever, neck stiffness, and photophobia.

Answer:

- A–E assessment
- IV antibiotics immediately
- Blood cultures
- Lumbar puncture if stable
- Escalate care

Differentials: Meningitis, Encephalitis

8. Intussusception

Scenario: A child presents with intermittent abdominal pain and “red currant jelly” stool.

Answer:

- A–E assessment
- Ultrasound abdomen
- Air/contrast enema reduction

- Surgical referral if unsuccessful

Differentials: Intussusception, Gastroenteritis

9. Neonatal Jaundice

Scenario: A newborn presents with yellowing of skin and sclera.

Answer:

- A–E (focused)
- Check bilirubin levels
- Identify cause
- Phototherapy if indicated
- Monitor closely

Differentials: Physiological jaundice, Haemolysis

10. Child Safeguarding Concern

Scenario: A child presents with inconsistent injury history and multiple bruises.

Answer:

- A–E assessment
- Ensure child safety
- Detailed history and examination
- Document findings
- Escalate to safeguarding team

Differentials: Non-accidental injury, Accidental trauma

Neonate

1. Neonatal Respiratory Distress Syndrome (RDS)

Scenario: A preterm neonate develops tachypnoea, grunting, and nasal flaring shortly after birth.

Answer:

- A–E (airway positioning, breathing support)
- Oxygen/CPAP
- Blood gases, CXR

- Surfactant therapy if indicated
- NICU admission

Differentials: RDS, TTN, Sepsis

2. Neonatal Sepsis

Scenario: A newborn presents with poor feeding, lethargy, temperature instability, and respiratory distress.

Answer:

- A–E assessment
- Blood cultures, CRP
- Start IV antibiotics immediately
- Monitor vitals
- NICU care

Differentials: Sepsis, Metabolic disorder

3. Neonatal Jaundice (Pathological)

Scenario: A newborn develops jaundice within first 24 hours of life.

Answer:

- A–E (focused)
- Measure bilirubin levels
- Blood group and Coombs test
- Phototherapy ± exchange transfusion
- Monitor closely

Differentials: Haemolysis, Physiological jaundice

4. Hypoglycaemia

Scenario: A neonate presents with jitteriness and poor feeding; glucose is low.

Answer:

- A–E assessment
- Check blood glucose
- Immediate feeding or IV dextrose
- Monitor glucose levels
- Identify risk factors

Differentials: Hypoglycaemia, Sepsis

5. Meconium Aspiration Syndrome

Scenario: A newborn has respiratory distress with meconium-stained liquor.

Answer:

- A–E assessment
- Suction if needed
- Oxygen/ventilation support
- CXR
- NICU care

Differentials: MAS, RDS

6. Neonatal Apnoea

Scenario: A preterm infant has episodes of apnoea and desaturation.

Answer:

- A–E assessment
- Stimulate infant
- Oxygen support
- Monitor
- Consider caffeine therapy

Differentials: Apnoea of prematurity, Sepsis

7. Congenital Heart Disease (Cyanotic)

Scenario: A newborn presents with cyanosis not improving with oxygen.

Answer:

- A–E assessment
- Oxygen
- Check pre/post-ductal saturations
- Start prostaglandin infusion
- Urgent cardiology referral

Differentials: CHD, PPHN

8. Necrotising Enterocolitis (NEC)

Scenario: A preterm neonate presents with abdominal distension and bloody stools.

Answer:

- A–E assessment
- Stop feeds (NPO)
- NG tube decompression
- IV antibiotics

- Surgical referral if severe

Differentials: NEC, Sepsis

9. Birth Asphyxia (HIE)

Scenario: A newborn has poor tone, low Apgar score, and requires resuscitation.

Answer:

- Neonatal resuscitation (A–E approach)
- Maintain airway and breathing
- Blood gases
- Therapeutic hypothermia if indicated
- NICU admission

Differentials: HIE, Sepsis

10. Neonatal Seizures

Scenario: A neonate presents with abnormal jerking movements and irritability.

Answer:

- A–E assessment
- Check glucose immediately
- Bloods, infection screen
- Anti-epileptic treatment
- Neuroimaging

Differentials: Seizures, Hypoglycaemia, HIE

HIV and STI

1. Community-Acquired Pneumonia in HIV Patient

Scenario: A 42-year-old HIV-positive man presents with fever, productive cough, pleuritic chest pain, and shortness of breath.

Answer:

- A–E assessment and oxygen if required
- Bloods: FBC, U&E, CRP, blood cultures
- Chest X-ray and sputum culture
- CURB-65 severity assessment
- Start empirical antibiotics according to local guidelines
- Review ART history and HIV control

Differentials: CAP, PCP, TB, COVID-19, PE

2. Meningitis

Scenario: A 29-year-old man presents with headache, photophobia, fever, neck stiffness, and confusion.

- A–E assessment and sepsis management
- Blood cultures and urgent antibiotics if suspected bacterial meningitis
- CT head if indicated before LP
- Lumbar puncture for CSF analysis
- Inform microbiology and senior team
- Monitor neurological status closely

Differentials**:** Bacterial meningitis, viral meningitis, cryptococcal meningitis, TB meningitis

3. Acute Diarrhoea and Dehydration

Scenario: A 35-year-old HIV-positive patient presents with profuse diarrhoea, vomiting, and dizziness.

- A–E assessment and fluid resuscitation
- Assess dehydration severity
- Bloods: FBC, U&E, CRP, stool cultures
- Stool PCR including Cryptosporidium if immunocompromised.
- Correct electrolyte abnormalities
- Infection control precautions

Differentials: Gastroenteritis, Cryptosporidium, CMV colitis, IBD, C. difficile

4. Newly Diagnosed Syphilis

Scenario: A 30-year-old man attends clinic with a painless penile ulcer following unprotected intercourse.

Answer:

- Full sexual history
- STI screen including HIV, Hepatitis B/C, Gonorrhoea, Chlamydia
- Syphilis serology

- Treat according to local protocol
- Partner notification and health promotion
- Arrange follow-up serology

Differentials: Syphilis, genital herpes, chancroid, LGV

5. Gonorrhoea Infection

Scenario: A 24-year-old woman presents with dysuria and purulent vaginal discharge.

Answer:

- Sexual history and examination
- NAAT testing for Gonorrhoea and Chlamydia
- Pregnancy test if appropriate
- Treat according to local guidelines
- Partner notification
- Advise abstinence until treatment completed

Differentials: Gonorrhoea, Chlamydia, PID, UTI, BV

6. Pelvic Inflammatory Disease (PID)

Scenario: A 26-year-old woman presents with lower abdominal pain, fever, and vaginal discharge.

Answer:

- A–E assessment if septic
- Pregnancy test
- STI screening
- Pelvic examination
- Start empirical antibiotics promptly
- Consider admission if severe

Differentials**:** PID, ectopic pregnancy, appendicitis, ovarian torsion

7. Needlestick Injury

Scenario: A nurse sustains a needlestick injury from a used needle in the Emergency Department.

Answer:

- Encourage bleeding and wash wound immediately
- Assess exposure risk
- Source patient testing if possible
- Baseline HIV, HBV, HCV tests
- Consider PEP if indicated
- Occupational Health referral

Differentials**:** HIV exposure, Hepatitis B exposure, Hepatitis C exposure

8. Septic Shock

Scenario: A 50-year-old patient presents with fever, hypotension, tachycardia, and altered consciousness.

Answer:

- Immediate A–E assessment
- Sepsis Six within one hour
- Blood cultures and lactate
- Broad-spectrum IV antibiotics
- Fluid resuscitation
- Escalate to ICU if required

Differentials**:** Sepsis, meningitis, severe pneumonia, disseminated TB

9. Tuberculosis Exposure

Scenario: A patient with HIV reports close household contact with a recently diagnosed pulmonary TB case.

Answer:

- Assess symptoms of active TB
- Chest X-ray
- IGRA testing if indicated
- HIV viral load and CD4 review
- Discuss TB prophylaxis if appropriate
- Refer to TB service

Differentials: Latent TB, active TB, viral illness

10. Oral Candidiasis

Scenario: A patient presents with painful white plaques in the mouth and difficulty swallowing.

Answer:

- Full HIV history and ART adherence assessment
- Examine for oral and oesophageal candidiasis
- Bloods including CD4 count and viral loa
- Antifungal treatment
- Assess for immunosuppression
- HIV specialist review

Differentials: Oral candidiasis, leukoplakia, oral lichen planus

11. Safeguarding and Sexual Health

Scenario: A 15-year-old girl attends requesting STI testing and contraception.

Answer:

- Assess Gillick competence
- Confidential consultation
- Explore safeguarding concerns
- STI testing and pregnancy test
- Discuss contraception options
- Escalate safeguarding concerns appropriately

Differentials: Consensual sexual activity, sexual exploitation, abuse

12. Breaking Bad News – HIV Diagnosis

Scenario: A patient's HIV test returns positive and you are asked to discuss the result.

Answer:

- Ensure privacy and appropriate setting
- Assess patient's understanding
- Explain result clearly and sensitively
- Reassure regarding modern HIV treatment outcomes
- Address concerns and questions
- Arrange urgent specialist follow-up

13. Poor ART Adherence

Scenario: A known HIV patient has rising viral load despite prescribed ART.

Answer:

- Explore adherence barriers non-judgmentally
- Review medication side effects
- Assess mental health and social issues
- Repeat viral load and resistance testing if needed
- Discuss with HIV specialist team
- Create adherence support plan

Differentials: Non-adherence, drug resistance, drug interactions

14. Chest Pain in HIV Patient

Scenario: A 55-year-old HIV-positive patient presents with central chest pain radiating to the left arm.

Answer:

- A–E assessment and ECG within 10 minutes

- Cardiac monitoring
- Troponin, FBC, U&E
- Aspirin and ACS pathway
- Cardiology review
- Consider HIV-related cardiovascular risk factors

Differentials: ACS, PE, aortic dissection, pericarditis

15. DKA in HIV Patient

Scenario: A 40-year-old diabetic HIV-positive patient presents with vomiting, abdominal pain, and confusion.

Answer:

- A–E assessment
- Blood glucose and ketones
- VBG/ABG and electrolytes
- Start DKA protocol
- IV fluids and insulin infusion
- Identify precipitating cause

Differentials: DKA, HHS, sepsis, gastroenteritis

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