

Surgery Block Presentations and Learning Outcomes

Below is a list of common and important presentations you should cover during the surgery block in CCE. The presentations are not an exhaustive list; it is to give you an idea of the common conditions that students are expected to come across in the clinical environment.

<p>Breast</p> <p>1. Breast lump; breast tenderness / pain</p> <p>Ear, Nose and Throat</p> <p>2. Ear Pain</p> <p>3. Epistaxis / Nasal obstruction</p> <p>4. Hearing loss</p> <p>5. Hoarseness and voice change</p> <p>6. Vertigo</p> <p>Gastrointestinal / Colorectal</p> <p>7. Abdominal distension, mass and ascites</p> <p>8. Acute abdominal pain</p> <p>9. Bleeding from the GI tract / Melaena</p> <p>10. Change in bowel habit / Diarrhoea and vomiting</p> <p>11. Chronic abdominal pain</p> <p>12. Jaundice</p> <p>13. Swallowing problems / Dysphagia</p> <p>General</p> <p>14. Lump in the neck</p> <p>15. Lymphadenopathy</p>	<p>Musculoskeletal</p> <p>16. Acute joint pain / swelling, bone pain / swelling</p> <p>17. Back pain and sciatica</p> <p>18. Lower limb disorders</p> <p>19. Upper limb disorders</p> <p>Ophthalmology</p> <p>20. Acute change in or loss of vision</p> <p>21. Red eye / eye pain</p> <p>Urology</p> <p>22. Groin / Scrotal swellings and pain</p> <p>23. Haematuria, Dysuria / Abnormal urinalysis</p> <p>24. Urinary symptoms / retention</p> <p>Vascular</p> <p>25. Limb claudication</p> <p>26. Shock</p>
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The key learning outcomes are:

- To take an adequate history and understand relevant differentials.
- Carry out necessary examinations and investigations.
- To understand initial management plans for such conditions.

Breast

1. Breast lump, breast tenderness / pain

By the end of the block students should be able to:

History

- Take a history of a patient with breast lump including characterisation of breast lump, location, pain, associated symptoms and skin changes.

Examination

- Examine the breast for tenderness, erythema, warmth, nipple changes, discharge, etc. as well as understand the anatomy of the breast.

Differential diagnoses

- Identify important differential causes including fibroadenoma, fibrocystic change, breast cancer, breast abscess and fat necrosis.
- Identify skin and subcutaneous lesions such as epidermoid cysts and lipomata that may occur in the breast.

Investigations

- Describe relevant investigations including breast USS, mammography, fine needle aspiration, core biopsy

Management

- Explain screening programme for breast cancer and referral to specialist as appropriate.

Ear, Nose and Throat

2. Ear Pain

By the end of the block students should be able to:

History

- Take a history including onset, duration, pain, radiation, neurological symptoms, systemic symptoms of infection, medication history, and red flags.

Examination

- Carry out ear examination including otoscopy and mastoid tenderness to distinguish otitis media / externa from mastoiditis.

Differential diagnoses

- Identify important causes of ear pain including local causes (otitis media, otitis externa, mastoiditis) and referred pain including tonsillitis, dental abscess (via the auriculo-temporal branch of the trigeminal nerve), temporo-mandibular arthritis, Herpes / Ramsey Hunt syndrome (via the facial nerve), and carcinoma base of tongue (via the glossopharyngeal nerve).

Investigations

- Describe appropriate investigations in patients with a painful ear.

Management

- Explain initial management including advice, analgesia, and other medications as appropriate

3. Epistaxis / Nasal obstruction

By the end of the block students should be able to:

History

- Take a history in a patient with nosebleed (epistaxis) and nasal obstruction including red flags like persistent bleeding, airway obstruction and anticoagulation.

Examination

- Carry out examination of the nose including signs of nasal discharge, nasal blockage

Differential diagnoses

- Identify common and important causes of nosebleed and nasal obstruction including nasal trauma, rupture of mucosa vessels in Little's area, allergic / non-allergic rhinitis, sinusitis, nasal polyps and deviated septum (in nasal obstruction).

Investigations

- Describe relevant investigation including using nasal endoscopy to view the nose

Management

- Explain first aid management of nosebleed and principles of further management of nosebleed. Understand initial management of the common causes of nasal blockage.

4. Hearing loss

By the end of the block students should be able to:

History

- Take a history including nature and onset of hearing loss, one or both ears, other neurological symptoms, medications, and red flags (such as loss of consciousness, weakness and speech disturbance).

Examination

- Examine a patient with hearing loss including Weber / Rinne's test, neurological examination, cranial nerves, and cerebellar signs

Differential diagnoses

- Identify common causes of conductive hearing loss including cerumen or earwax, foreign bodies, infection or otosclerosis. Also consider congenital abnormalities and sensorineural hearing loss including congenital, infection, cerebellar-pontine tumour, vascular, and ototoxic drugs.

Investigations

- Describe relevant investigations including audiometry, blood glucose, viral titres, MRI brain, CT scan and their interpretation

Management

- Explain principles of management of common and important differentials and referral to specialist as appropriate.

5. Hoarseness and voice change

By the end of the block students should be able to:

History

- Take a history in a patient with hoarseness of voice including smoking, alcohol, family history, past medical history and red flags such as weight loss and neck lumps.

Examination

- Demonstrate key features in the examination for hoarseness including the anatomical location of the larynx in the neck, neck lumps, cranial nerves and lymph node examinations.

Differential diagnoses

- Describe causes of hoarseness including acute laryngitis, acid reflux, allergies, smoking, vocal overuse, thyroid problems, benign vocal cord cyst or polyps, recurrent laryngeal nerve injury and laryngeal cancer.

Investigations

- Describe appropriate investigations in a patient with hoarseness / voice change e.g. laryngoscopy, fiberoptic scope, and their interpretation

Management

- Explain initial management of differential diagnoses of hoarseness including referral as appropriate.

6. Vertigo

By the end of the block students should be able to:

History

- Take a history of a patient with vertigo including neurological symptoms, medications, and red flags (such as loss of consciousness, weakness and speech disturbance)

Examination

- Demonstrate key features including examination of the ears, examination of the eyes for nystagmus and neurological examination

Differential diagnoses

- Describe important differentials including vestibular neuronitis, benign paroxysmal positional vertigo, labyrinthitis, Meniere's disease, acoustic neuroma, drug ototoxicity, and brainstem disorders.

Investigations

- Describe relevant bedside, clinical, laboratory and radiological investigations including blood glucose, ECG, CT scan, MRI brain, and their interpretation.

Management

- Explain management including medications, lifestyle advice and safety netting

Gastrointestinal / Colorectal

7. Abdominal distension, mass and ascites

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration, alcohol history, possibility of pregnancy and red flags.

Examination

- Carry out general examination, abdominal examination (including signs of liver disease) and rectal examination.

Differential diagnoses

- Describe important differential causes for abdominal distension (6 F's): Fat (obesity); Flatus (obstruction, pseudo-obstruction); Faeces (obstruction); Fluid (ascites, distended bladder), Foetus; and Functional (bloating e.g. IBS)
- Explain the physiology involved in abdominal distension and the mechanisms by which ascites may occur.

Investigations

- Describe bedside, clinical, laboratory and radiological investigations including LFTs, abdominal ultrasound, abdominal CT scan and abdominal paracentesis.

Management

- Explain the principles of management including medical or non-medical management as appropriate

8. Acute abdominal pain (see example on CCE pages)

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, location, duration, characterisation of pain, radiation, any alcohol history and possibility of pregnancy and red flags.

Examination

- General examination plus careful examination of abdomen for tenderness, rigidity, organomegaly, guarding and bowel sounds.

Differential diagnoses

- Describe important differentials including appendicitis, biliary disease, pancreatitis, peptic ulcer disease and a 'surgical sieve' approach to differential diagnoses.

Investigations

- Describe relevant investigations including FBC, U & Es, CRP, LFTs, amylase, abdominal ultrasound and abdominal CT.

Management

- Explain management including analgesia, IV fluids and referral as appropriate.

9. Bleeding from the GI Tract / Melaena

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration, pain, type of bleeding, red flags and risk factors.

Examination

- Carry out a general examination including blood pressure, signs of anaemia and liver disease plus a full abdominal examination

Differential diagnoses

- Describe important differential causes for upper GI bleeding (peptic ulcer disease, gastritis/duodenitis, malignancy, Mallory-Weiss tear, oesophageal varices) and associated risk factors (e.g. NSAIDs and aspirin).
- Describe important differential causes for lower GI bleeding including diverticular disease, colorectal cancer, haemorrhoids, AVM, perianal disease and inflammatory bowel disease.

Investigations

- Describe relevant investigations including upper GI endoscopy, sigmoidoscopy, colonoscopy, CT angiography, H. Pylori testing, and understand their interpretation.

Management

- Explain management including IV fluids, blood products if appropriate, medication and referral to specialist care.

10. Change in stool, bowel habit / Diarrhoea and vomiting

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration, characterisation of the change in bowel habit, vomiting, red flags such as rectal bleeding, weight loss and aggravating / relieving factors as well as the Bristol stool chart (if appropriate).

Examination

- Carry out a general examination (including lymphadenopathy), abdominal examination (distension, tenderness, bowel sounds, etc.) and rectal examination.

Differential diagnoses

- Describe important differential causes within the GI tract (irritable bowel syndrome, inflammatory bowel disease, infection, bowel cancer, malabsorption) and outside the GI tract (other types of cancer).

Investigations

- Describe relevant investigations including FBC, CRP, U+Es, endoscopy, colonoscopy and CT scan.

Management

- Explain management including fluid replacement if indicated, communication with patients about screening programmes and referral to specialist if appropriate.

11. Chronic abdominal pain

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration, characterisation of pain, any change in bowel habit, associated symptoms such as vomiting, red flags such as rectal bleeding, weight loss and aggravating/relieving factors.

Examination

- Carry out a general examination (including enlarged lymph nodes), abdominal examination for distension, tenderness, ascites, and perform a rectal examination.

Differential diagnoses

- Describe important differential causes including biliary colic, peptic ulcer disease, chronic pancreatitis, constipation, inflammatory bowel disease, chronic PID, other gynaecological causes, as well as functional causes such as non-ulcer dyspepsia and IBS.

Investigations

- Describe relevant bedside, clinical, laboratory and radiological investigations including endoscopy, FBC, CRP, amylase, LFTs, abdominal USS, CT scan, and their interpretation.

Management

- Explain initial management including analgesia, laxative types, antibiotics (if required) and referral if appropriate, with safety netting.

12. Jaundice

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration, progression, red flags such as painless jaundice, weight loss, ascites and social / alcohol history.

Examination

- Carry out general and abdominal examination looking for signs related to jaundice and possible abdominal causes.

Differential diagnoses

- Describe the pathophysiology associated with the development of jaundice and classify the causes of jaundice into pre-hepatic, hepatic and post-hepatic with knowledge of common examples (hepatitis, hepatic cancer, decompensated liver failure and pancreatic cancer). Distinguish between infectious and mechanical causes of biliary obstruction.

Investigations

- Describe relevant investigations in a patient with jaundice (including interpretation). Identify the components included in LFTs and understand what each represents in terms of liver function and dysfunction. Be aware of additional tests used within the liver screen to further discriminate liver pathologies (hepatitis serology, iron studies, auto-antibodies, alpha1 antitrypsin, USS abdomen). Also be aware of the importance of clotting results with regards to liver dysfunction.

Management

- Explain the principles of initial management of common and important differential diagnoses.

13. Swallowing problems / Dysphagia

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration, pain on swallowing, vomiting, regurgitation, neurological symptoms and red flags such as weight loss.

Examination

- Demonstrate key features in the examination including neck tenderness, swelling, mass and lymphadenopathy, as well as any concerning neurological findings.

Differential diagnoses

- Understand that swallowing difficulties may have infective, neurological, muscular or structural causes.
- Describe important differential causes including benign (e.g. gastro-oesophageal reflux, tonsillitis, oesophageal web); malignant strictures; extrinsic compression; motility disorders (e.g. scleroderma, achalasia); myasthenia gravis and bulbar palsy

Investigations

- Describe relevant investigations including upper GI endoscopy, oesophageal manometry, barium swallow, CT head and neck, and understand their interpretation.

Management

- Explain the principles of management including medications, SALT assessment, lifestyle advice on diet / alcohol and referral to specialist if appropriate.

General

14. Lump in the neck

By the end of the block students should be able to describe:

History

- Take a history of the onset of symptoms, duration, smoking and alcohol history and red flags such as rapidly developing lump, airway issues, dysphagia, hoarseness and weight loss.

Examination

- Examine the neck, demonstrating the anatomy of the neck (particularly relating to thyroid gland, lymph nodes and other neck structures) and how to describe neck lumps and lymph nodes.

Differential diagnoses

- Describe common and important differential causes of neck lumps such as cervical lymphadenopathy, goitre, salivary gland disease, branchial cyst, cystic hygroma, thyroglossal cyst and epidermal cyst.

Investigations

- Describe relevant investigations including neck ultrasound, lump biopsy and barium swallow.

Management

- Explain the principles of management of neck lumps including referral as appropriate.

15. Lymphadenopathy

By the end of the block students should be able to:

History

- Take a history timing of lump development, pain and red flags such as weight loss

Examination

- Carry out an examination of the lymphatic drainage system differentiating between generalised lymphadenopathy (presence of palpable lymph nodes in three or more chains) and localised lymphadenopathy.

Differential diagnoses

- Describe possible differential diagnoses for generalised lymphadenopathy including lymphoma, leukaemia, collagen vascular disorders, systemic bacterial, viral, and protozoal infection.

Investigations

- Describe bedside, clinical, laboratory and radiological investigations appropriate to investigate a patient with enlarged lymph node(s) and distinguish between reactive and malignant causes of lymphadenopathy

Management

- Explain the principles of management of common and important differential diagnoses

Musculoskeletal

16. Acute joint pain / swelling, bone pain and swelling

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration, characterisation of pain, trauma, and history of autoimmune conditions, as well as any systemic symptoms.

Examination

- Carry out an examination of the joint including tenderness, erythema, warmth, range of movement and systemic signs

Differential diagnoses

- Describe joint anatomy and demonstrate understanding that joint swelling / pain may arise from periarticular structures (bursae, tendons, muscles) or the joint (synovitis, effusion) and may involve one or more joints.
- Describe important differentials including bursitis, tendinopathies, septic arthritis, trauma (haemarthrosis), crystal arthropathy (gout, pseudo-gout), reactive arthritis, seronegative spondylarthropathies, bone cancer and secondaries.

Investigations

- Describe relevant investigations including joint X-ray, USS, joint aspiration, bloods (WCC, ESR, CRP, ACPA, autoimmune screens) and their interpretation.

Management

- Explain the principles of management including analgesia, DMARDs and referral if appropriate.

17. Back pain / Sciatica

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration, characterisation of pain, trauma, past medical history and red flags such as saddle anaesthesia, incontinence, foot drop and weakness.

Examination

- Demonstrate key features in the examination of the back including tenderness, swelling, erythema, warmth, range of movement, etc. Do a full upper and lower limb examination, including plantar reflexes and PR.

Differential diagnoses

- Describe the anatomy of the spine and the mechanisms by which back pain and radicular pain (sciatica) may occur
- Describe important differential causes for back pain including mechanical back pain, disc herniation, lumbar spine stenosis, vertebral trauma / fracture, spondyloarthropathies (inflammatory), spinal tumour, spinal infection, spondylolisthesis and cauda equina syndrome.

Investigations

- Describe relevant investigations including spine X-ray / MRI, USS, Bloods (WCC, ESR, CRP) and their interpretation

Management

- Explain initial management including analgesia, physiotherapy and lifestyle advice.

18. Lower limb disorders

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration and progression in patients suffering from hip or knee problems including pain, weakness, limitation of movement, etc.

Examination

- Demonstrate important findings in the examination of the hip and knee joints which help differentiate between causes

Differential diagnoses

- Describe the anatomy of the lower limb including the vascular and nerve supply
- Describe differential diagnoses for lower limb disorders including soft tissue injuries, bony injuries, tendon injuries and neurovascular causes including diabetic neuropathy.

Investigations

- Describe relevant investigations including X-Rays, doppler ultrasound and nerve conduction studies.

Management

- Explain the principles of management in patients with hip and knee problems including analgesia, physiotherapy and lifestyle advice.

19. Upper limb disorders

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration and progression in patients suffering from shoulder or elbow problems including pain, weakness, limitation of movement, neck pain, muscle strength along the whole upper limb, including grip strength.

Examination

- Demonstrate important findings in the examination of the neck, shoulder and elbow joints which help differentiate between causes.

Differential diagnoses

- Describe the anatomy of the upper limb including the vascular and nerve supply
- Describe differential diagnoses for upper limb disorders including soft tissue, bony, nerve, tendon and vascular injuries and nerve compression.

Investigations

- Describe relevant investigations including X-Rays, doppler ultrasound and nerve conduction studies.

Management

- Explain the principles of management in patients with shoulder and elbow problems including analgesia, physiotherapy and lifestyle advice.

Ophthalmology

20. Acute change in or loss of vision

By the end of the block students should be able to:

History

- Take a history of a patient with acute change in or loss of vision including onset, duration, progression, presence or absence of pain, neurological symptoms and history of trauma.

Examination

- Demonstrate examination of the eye including the anatomy and physiology of the orbit, ophthalmoscopy and neurological examination.

Differential diagnoses

- Describe common and important differential diagnoses such as retinal detachment, optic neuritis, retina haemorrhage, central retina vascular occlusion, and attacks of acute narrow angle glaucoma.
- Understand which of these are ophthalmological emergencies.

Investigations

- Describe relevant investigations in a patient with acute change in or loss of vision

Management

- Explain the principles of management of visual loss including referral to ophthalmology

21. Red eye / Eye pain

By the end of the block students should be able to:

History

- Take a history of a patient with red eye, eye pain and discomfort including associated features, trauma, infective symptoms, past medical history and medications.

Examination

- Demonstrate examination of the eye including the anatomy and physiology of the orbit, ophthalmoscopy (eliciting corneal and pupillary reflexes) and neurological examination.

Differential diagnoses

- Describe common differentials including acute conjunctivitis, herpetic eye disease, acute iritis, corneal abrasion, narrow angle glaucoma, ocular hypertension, trauma and allergy. Understand which of these could be sight-threatening.

Investigations

- Describe relevant investigations in a patient with red eye or eye pain

Management

- Explain the principles of management of common causes of red eye and eye pain including referral to ophthalmology.

Urology

22. Groin / Scrotal swellings and pain

By the end of the block students should be able to describe:

History

- Take a history of the onset of symptoms, duration, progression, pain, and red flags

Examination

- Carry out abdominal and genital examination including tenderness, reducibility and cremasteric reflex. Note the lie of the testicle, check for erythema and swelling and feel for any knots in the spermatic cord.

Differential diagnoses

- Describe important differential causes for groin swellings including hernias, lymph nodes, and scrotal swelling (inguinal hernia, hydrocoele, varicocele, testicular tumours, epididymal cyst), scrotal pain (testicular torsion, epididymo-orchitis, strangulated hernia).
- Explain the anatomy and embryology of the inguinal canal and scrotum

Investigations

- Describe relevant investigations including urinalysis, abdominal / scrotal ultrasound and abdominal CT.

Management

- Explain initial management including pain relief, surgical referral when appropriate e.g. testicular torsion as an emergency

23. Haematuria, Dysuria and Abnormal Urinalysis

By the end of the block students should be able to:

History

- Take a history of the symptoms including pain during or after urination, presence of blood, risk factors and red flags as well as other causes of red urine like menstrual blood, food and medications (beetroot, rifampicin, clofazimine, anticoagulants)

Examination

- Describe key features in the examination including abdominal / renal angle tenderness, rectal examination and pelvic examination in women.

Differential diagnoses

- Describe important differential causes of haematuria (UTI, tumours – renal / bladder cancers; stones – renal / ureteric; renal disease – Goodpasture's syndrome, post-streptococcal glomerulonephritis; trauma – kidney / urethra; iatrogenic – catheterisation, prostate – BPH, cancer) and dysuria (including lower urinary tract infection, inflammation – cystitis, urethritis).

Investigations

- Describe relevant investigations including urinalysis, urine culture, cytology, USS KUB, cystoscopy, CT urogram and their interpretation

Management

- Explain the principles of management including medications for pain relief, antibiotics and referral as appropriate.

24. Urinary symptoms and retention

By the end of the block students should be able to:

History

- Take a history of type, onset, duration of urinary symptoms, fluid intake, red flags such as haematuria, weight loss and risk factors for urinary retention

Examination

- Describe key features of the examination including abdominal, pelvic, and prostate examination where appropriate.

Differential diagnoses

- Explain the mechanisms by which urinary retention occurs: obstruction of the urethra, weakened bladder muscle and innervation problem.
- Describe common and important causes of urinary retention including BPH, urethral stricture, medication (e.g. anticholinergics, tricyclic antidepressants, calcium channel blocker), damage to the nervous system (e.g. Parkinson's, multiple sclerosis and Alzheimer's disease). In women consider large cystocele, pregnancy, fibroid or ovarian cyst obstructing the urethra.

Investigations

- Describe relevant investigations including bladder scan for volume, urinalysis / culture, urine cytology, pelvic / rectal / KUB USS, PSA, cystoscopy and CT urogram.

Management

- Explain the principles of management of urinary retention including catheterisation and treatment of underlying cause

Vascular

25. Limb claudication

By the end of the block students should be able to:

History

- Take a history of the onset of symptoms, duration, exercise tolerance, progression, smoking history, cardiac disease and medication history.

Examination

- Carry out a general examination and limb examination including peripheral pulses and ankle brachial pressure index.

Differential diagnoses

- Describe the arterial supply to the lower limb and understand epidemiology of peripheral arterial disease and risk factors.

Investigations

- Describe relevant investigations to investigate a patient with peripheral arterial disease including an Ankle Brachial Pressure Index (ABPI), USS Doppler, limb angiography, and their interpretation.

Management

- Explain the principles of management of peripheral arterial disease including lifestyle, medications and surgical interventions

26. Shock

By the end of the block students should be able to:

History

- Key features of the history in a patient with shock- including the types of shock

Examination

- Carry out the examination of a patient with shock including A-E assessment demonstrating the understanding of shock as a clinical syndrome characterised by inadequate systemic and tissue perfusion.

Differential diagnoses

- Describe common / important causes of shock including hypovolaemic (haemorrhage and other fluid losses), cardiogenic (MI, arrhythmias, etc.), obstructive (tension pneumothorax, cardiac tamponade), and distributive shock (anaphylactic and neurogenic shock).
- Understand the categories of hypovolaemic shock,

Investigations

- Describe relevant investigations including FBC, Group and save, X-match, blood cultures, serum lactate, chest x-ray, ultrasound, echocardiogram, and CT scan – all depending upon presentation

Management

- Explain the principles of management of different types of shock including Sepsis 6 bundle (oxygen, IV fluids, blood cultures, IV antibiotics, lactate/bloods and urine output). Always give blood in hypovolaemic shock. Be aware of the massive haemorrhage protocol.