

| Causes of chest pain? | |
|-------------------------|-------------------|
| cardiac | angina |
| | MI |
| | pericarditis |
| | aortic dissection |
| respiratory | pleurisy |
| | PE |
| | pneumothorax |
| GI | GORD |
| | oesophagitis |
| musculo-skeletal | strain/trauma |

| Arterial pulses | |
|------------------|---------------------------|
| plateau | AS |
| small volume | AS |
| | shock |
| bisferiens | AS, AR |
| anacrotic | AS |
| pulsus alternans | LVF |
| pulsus paradoxus | pericardial effusion |
| | constrictive pericarditis |
| | severe asthma |

| Causes of raised JVP? |
|------------------------|
| RVF |
| pulmonary hypertension |
| pulmonary stenosis |
| tricuspid stenosis |
| SVC obstruction |

| Causes of AF? |
|--------------------------|
| IHD |
| hypertension |
| mitral stenosis |
| lone atrial fibrillation |
| cardiomyopathy |
| hyperthyroidism |

| Causes of cor pulmonale? |
|-------------------------------|
| COPD |
| idiopathic pulmonary fibrosis |
| massive PE |
| obstructive sleep apnoea |
| 1° pulmonary hypertension |

| Causes of peripheral oedema? | | |
|--------------------------------|-----------------------|-------------------------|
| generalised (bilateral) | fluid overload | heart failure |
| | | renal failure |
| | | iatrogenic |
| | hypoproteinaemia | malnutrition |
| | | malabsorption |
| | | chronic liver disease |
| | | nephrotic syndrome |
| | medication | calcium channel blocker |
| localised (unilateral) | obstruction | pelvic tumour |
| | | DVT |
| | infection | cellulitis |
| | postural | standing too long |
| | ruptured Baker's cyst | |

| Causes of Rt heart failure? | Causes of Lt heart failure? |
|----------------------------------|-----------------------------|
| 2° to Lt heart failure | IHD |
| MI | hypertension |
| PS, TS, TR | MI |
| 1° pulmonary hypertension | AS, AR, MR |
| 2° pulmonary hypertension (COPD) | |

| Causes of bradycardia? | Causes of tachycardia? |
|------------------------|------------------------|
| athletes | pain |
| B-blocker | fever |
| hypothyroidism | anxiety |
| heart block | thyrotoxicosis |
| hypothermia | B2-agonist |
| | hypovolaemia |
| | arrhythmia |

| Causes of raised D-Dimer? |
|---------------------------|
| DVT |
| MI |
| recent surgery |
| liver disease |
| renal disease |
| malignancy |

| Causes of pericarditis? | |
|-------------------------|--------------------|
| infarction | MI |
| iatrogenic | cardiac surgery |
| inflammation | SLE |
| | rheumatoid disease |
| infection | coxsachie virus |
| | bacterial |

Cardiology

| Causes of cyanosis? | | |
|---------------------|------------------|----------------------|
| central | respiratory | acute severe asthma |
| | | COPD |
| | | pulmonary oedema |
| | | PE |
| | cardiac | L-R shunt |
| | blood | methaemoglobinaemia |
| | | polycythaemia |
| | | |
| peripheral | as above | |
| | vasoconstriction | cold |
| | | raynaud's |
| | | beta blocker |
| | poor circulation | heart failure |
| | blockage | arterial obstruction |

| Aortic stenosis | Mitral regurgitation | Aortic regurgitation | Mitral stenosis |
|--|--------------------------------|---------------------------------|------------------------|
| harsh crescendo-decrescendo systolic | pansystolic | early diastolic | mid diastolic |
| loudest in aortic area | radiating to axilla | LSE with expiration | tapping apex beat |
| radiating to carotid | displaced, thrusting apex beat | displaced, thrusting apex beat | loud S1 |
| sustained, heaving minimally displaced apex beat | soft S1 | collapsing (Corrigan) pulse | |
| slow rising pulse | | wide pulse pressure | |
| | | pistol shot noise over femorals | |

| Causes of Rt axis deviation? | | Causes of Lt axis deviation? | |
|-------------------------------|------------------------------|------------------------------|---------------------------------|
| Rt ventricular hypertrophy | cor pulmonale | Lt anterior fascicular block | LAD artery ischaemia/infarction |
| | pulmonary stenosis | | cardiomyopathy |
| Lt posterior fascicular block | cardiomyopathy | Rt sided infarction | |
| | diffuse ischaemia/infarction | Lt ventricular hypertrophy | |
| Lt lateral infarction | | | |

| ECG changes | | |
|---------------------------|------------------------------------|----------------------|
| hyperkalaemia | tall tented T waves | |
| | widened QRS | |
| | absent P waves | |
| | sine wave | |
| hypokalaemia | flattened T waves | |
| MI | <5min | hyperacute T waves |
| | <20min | ST elevation |
| | hrs | terminal QRS changes |
| | within days | pathological Q waves |
| | variable time | T wave inverts |
| PE | sinus tachycardia | |
| | RBBB | |
| | RV strain pattern | |
| ischaemia | ST depression | |
| | T wave inversion | |
| LVH | S (V1 or V2) + R (V5 or V6) ≥ 35mm | |
| | any chest lead ≥ 45mm | |
| RVH | R wave ≥ 7sq V1 | |
| | R:S ratio V1 or V2 ≥ 1 | |
| LVH strain pattern | V1-V2 | ST elevation |
| | | deep S waves |
| | V5-V6 | T wave inversion |
| | | ST depression |
| | | tall R waves |
| RVH strain pattern | depressed concave ST | |
| | inverted asymmetric T wave | |

| Causes of Rt bundle branch block? | Causes of Lt bundle branch block? |
|-----------------------------------|-----------------------------------|
| PE | hypertension |
| cor pulmonale | IHD |
| IHD | dilated cardiomyopathy |
| | rheumatic heart disease |

| Rt BBB ECG changes? | Lt BBB ECG changes? |
|---------------------------|--------------------------|
| duration > 3 sq | duration > 3 sq |
| slurred S wave lead I, V6 | broad R waves lead I, V6 |
| RSR lead V1 | broad S waves V1 |

| Infarct patters | |
|-----------------|---------------------|
| inferior | lead II, III, aVF |
| septal | V1-V2 |
| anterior | V3-V4 |
| lateral | lead I, aVL, V5-V6 |
| posterior | tall R waves V1-V2 |
| | ST depression V1-V2 |

| Causes of ST depression? |
|-----------------------------|
| ischaemia |
| reciprocal changes in STEMI |
| LVH / RVH strain pattern |
| BBB |
| PE |
| digoxin |

| Causes of ST elevation? |
|-----------------------------|
| MI |
| pericarditis |
| benign early repolarisation |

| ECG | | |
|-------------|---------------------------------|-----------------------------|
| P wave | <2.5sq wide | |
| | tall (P pulmonale) >2.5 sq tall | Rt atrial enlargement |
| | bifid (P mitrale) | Lt atrial enlargement |
| QRS | <3 sq | |
| PR interval | 3-5 sq | |
| | <3 | WPW syndrome |
| | >5 | 1 st degree HB |
| QT interval | if HR 60bpm < 0.44sec | |
| QTc | used if HR not 60bpm | |
| | QT/ (square of RR) | |
| | short | hyperCa ²⁺ |
| | long | hypoCa ²⁺ |
| T wave | inverted | ischaemia |
| | | MI |
| | | SAH |
| | | persistant juvenile pattern |
| | | digoxin |
| | | LVH strain pattern |
| | | hypo K, Ca, Mg |
| Q waves | lead II, III, aVF, V5-V6 | normal |
| | > 1 sq wide & 2mm deep | pathological |
| | | |

| Features of benign murmur? |
|----------------------------|
| systolic |
| NAD on ECG, CXR, US |
| NAD on physical exam |
| position dependent |
| grade ≤ 3 |

| Causes of benign murmur? |
|--------------------------|
| fever |
| anaemia |
| pregnancy |
| thyrotoxicosis |

| Grading of murmur |
|---|
| 1. very faint |
| 2. soft |
| 3. heard all over praecordium |
| 4. loud with palpable thrill |
| 5. loud heard with stethoscope partially of chest |
| 6. very loud, heard without stethoscope |

| Causes of cough? | |
|------------------|-----------------|
| acute | URTi |
| | pneumonia |
| | foreign body |
| chronic | post nasal drip |
| | asthma |
| | GORD |
| | COPD |
| | smokers cough |
| | lung CA |
| | ACEi |

| Causes of haemoptysis? |
|------------------------|
| bronchitis |
| pneumonia |
| bronchiectasis |
| lung CA |
| PE |
| spurious |
| TB |

| Causes of stridor? | | |
|--------------------|---------------------------------|-------------|
| sudden | inhaled foreign object | |
| | anaphylaxis | |
| gradual | tumour | pharynx |
| | | larynx |
| | | trachea |
| | external compression of trachea | lymph nodes |
| | | goitre |

| Features of lung diseases | | | | | |
|------------------------------|------------------------|-------------------|-----------------|-----------|-----------------------------------|
| consolidation | - | ↓ chest expansion | dull percussion | ↑ VT +TVF | bronchial BS with coarse crackles |
| lobar collapse | trachea pulled towards | ↓ chest expansion | ↔ or dull | ↓ VT +TVF | ↓ BS |
| unilateral fibrosis | trachea pulled towards | ↓ chest expansion | ↔ | ↑ VT +TVF | fine crackles |
| interstitial fibrosis | - | ↓ chest expansion | resonant | ↑ VT +TVF | fine crackles |
| pleural effusion | trachea pushed away | ↓ chest expansion | stony dull | ↓ VT +TVF | ↓ BS |
| pneumothorax | - | ↓ chest expansion | hyper resonant | ↓ VT +TVF | ↓ BS |
| tension pneumothorax | trachea pushed away | ↓ chest expansion | hyper resonant | ↓ VT +TVF | absent |

| Causes of clubbing? | |
|---------------------|-----------------------------------|
| respiratory | idiopathic pulmonary fibrosis |
| | bronchiectasis |
| | lung CA |
| | asbestosis |
| | lung abscess |
| | mesothelioma |
| cardiac | cyanotic congenital heart disease |
| | infective endocarditis |
| GI | IBD |
| | celiac disease |
| | cirrhosis |

| Causes of pneumothorax? | |
|-------------------------|-------------------------|
| traumatic | |
| iatrogenic | |
| spontaneous | emphysema |
| | asthma |
| | lung abscess |
| | subpleural bulla ??bleb |

Respiratory

| Causes of respiratory failure? | | |
|--------------------------------|-------------------------------|-------------------|
| Type I | Type II | |
| pulmonary oedema | COPD | |
| pulmonary fibrosis | severe asthma | |
| pneumonia | respiratory centre depression | opioids |
| pneumothorax | respiratory muscle weakness | myasthenia gravis |
| PE | | |
| COPD | | |

| Breathing patterns | |
|--------------------|--------------------------------|
| Cheyne-Stokes | LVF |
| | central respiratory depression |
| Kussmaul | diabetes |
| | uraemia |

| Causes of bronchiectasis? |
|---------------------------|
| idiopathic |
| infection |
| cystic fibrosis |
| bronchial CA |

| Causes of hypoxia? |
|--------------------|
| hypoventilation |
| impaired diffusion |
| abnormal V/P ratio |

| Causes of wheeze? |
|--------------------------|
| asthma |
| COPD |
| bronchiectasis |
| large airway obstruction |

| Causes of breathlessness? | |
|---------------------------|--------------------|
| cardiac | cardiac failure |
| respiratory | asthma |
| | bronchiectasis |
| | COPD |
| | pneumonia |
| | pneumothorax |
| | PE |
| | pulmonary fibrosis |
| other | anaemia |
| | overweight |

| Causes of pleural effusion? | | |
|-----------------------------|---------------------|----------|
| transudate | LVF | |
| | hepatic failure | |
| | nephrotic syndrome | |
| exudate | bacterial pneumonia | |
| | malignancy | lung |
| | | breast |
| | | lymphoma |
| | PE | |
| | TB | |
| | SLE | |

| Light criteria |
|---|
| 1. pleural protein / serum protein >0.5 |
| 2. pleural LDH / serum LDH >0.6 |
| 3. pleural LDH > 2/3 normal upper serum limit |

| Causes of dysphagia? | | |
|----------------------|------------------------------------|---------------------|
| mechanical | GORD induced oesophageal stricture | |
| | foreign body | |
| | oesophageal carcinoma | |
| | plummer-vinson syndrome | |
| | extrinsic compression | tumour in neck |
| | | retrosternal goitre |
| neurological | stroke | |
| | MND | |
| | MS | |
| | PD | |
| | achalasia | |

| Causes of haematemesis? | |
|-------------------------|--------------------|
| oesophagus | oesophagitis |
| | Mallory-Weiss tear |
| | varicies |
| | CA |
| stomach | gastric ulcer |
| | acute gastritis |
| | CA |
| duodenum | duodenal ulcer |

| Causes of diarrhoea? | |
|----------------------|-----------------|
| diet | curry |
| stress | exams |
| | IBS |
| infection | |
| iflammation | IBD |
| cancer | colon CA |
| endocrine | hyperthyroidism |
| medication | antibiotics |

| Causes of constipation? |
|-------------------------|
| idiopathic |
| dietary |
| opioids |
| diverticular disease |
| colorectal cancer |
| hypothyroidism |
| hypercalcaemia |

| Causes of epigastric mass? | |
|----------------------------|---------------------|
| stomach | CA |
| | plyloric stenosis |
| liver | enlarged left lobe |
| pancreas | pancreas cyst |
| | CA head of pancreas |
| gallbladder | mucocoele |

| Causes of Rt iliac fossa mass? | |
|--------------------------------|----------|
| caecum | CA |
| | crohns |
| appendix | abscess |
| ovary | cyst |
| | CA |
| external iliac artery | aneurysm |
| psoas muscle | abscess |
| kidney transplant | |

| Causes of hypogastric mass? | |
|-----------------------------|------------------|
| | enlarged bladder |
| | sigmoid CA |
| | ovarian cyst |
| | uterine fibroids |

| Causes of Lt iliac fossa mass? | |
|--------------------------------|----------------------|
| sigmoid | diverticular abscess |
| | CA |
| ovary | cyst |
| | CA |
| external iliac artery | aneurysm |
| psoas muscle | abscess |
| kidney transplant | |

| Causes of splenomegaly? | |
|--------------------------|---|
| mild | portal hypertension 2 ^o to cirrhosis |
| | cirrhosis |
| | infectious hepatitis |
| | idiopathic thrombocytopenia |
| | rheumatoid arthritis |
| moderate (4-8cm) | portal hypertension 2 ^o to cirrhosis |
| | lymphoma |
| | leukaemia |
| massive (>8cm) | malaria |
| | gaucher's disease |
| | black fever |

| Causes of hepatomegaly? | |
|-------------------------|-------------------------|
| cardiac | heart failure |
| | tricuspid regurgitation |
| infective | hepatitis |
| | brucellosis |
| | hydatid disease |
| haematological | lymphoma |
| | leukaemia |
| | myelofibrosis |
| | haemolytic anaemia |
| infiltrative | amyloidosis |

| Causes of paralytic ileus? |
|----------------------------|
| abdominal surgery |
| peritonitis |
| mesenteric ischaemia |

| Causes of hepatosplenomegaly? | |
|-------------------------------|---|
| infective | hepatitis |
| | brucellosis |
| | toxoplasmosis |
| | CMV |
| haematological | myelofibrosis |
| | lymphoma |
| | portal hypertension 2 ^o to chronic liver disease |
| | sarcoidosis |
| | amyloidosis |

| Causes of small bowel obstruction? |
|------------------------------------|
| adhesion |
| tumour |
| hernia |
| volvulus |
| intersusception |

| Causes of large bowel obstruction? |
|------------------------------------|
| strictures |
| sigmoid volvulus |
| colan CA |
| intersusception |

| Small and large bowel on Xray | |
|-------------------------------|------------------------|
| small | central |
| | valvulae conniventes |
| | cross entire lumen |
| | upto 3cm diameter |
| large | circumferential |
| | haustreae |
| | up to 6cm (caecum 9cm) |

| Causes of rectal bleeding? | |
|----------------------------|-----------------------|
| small intestine | Meckel's diverticulum |
| | enteritis |
| colon | IBD |
| | angiodysplasia |
| | CA |
| | diverticula disease |
| | polyp |
| rectum | CA |
| anus | haemorrhoids |
| | fissure |

Causes of acute abdomen?

| |
|------------------------|
| Diffuse |
| intestinal obstruction |
| DKA |
| gastroenteritis |
| mesenteric ischaemia |

| |
|---------------|
| RUQ |
| cholecystitis |
| biliary colic |
| hepatitis |

| |
|---------------------------|
| RUQ + LUQ |
| pancreatitis |
| perforated duodenal ulcer |
| lower lobe pneumonia |

| |
|-----------------|
| LUQ |
| gastritis |
| splenic infarct |

| |
|------------------------|
| RLQ |
| appendicitis |
| caecal perforation |
| Meckles diverticulitis |
| mesenteric adenitis |

| |
|-----------------------------|
| RLQ + LLQ |
| renal colic |
| cystitis |
| ectopic pregnancy |
| ovarian cyst |
| pelvic inflammatory disease |

| |
|------------------------|
| LLQ |
| sigmoid diverticulitis |
| sigmoid volvulus |

| | |
|----------------------------|----------------------------|
| Causes of ascities? | |
| transudate | heart failure |
| | chronic liver disease |
| | nephrotic syndrome |
| | hypoproteaniemia |
| exudate | intra-abdominal malignancy |
| | tuberculous peritonitis |

| | |
|----------------------------|---------------------------|
| Causes of jaundice? | |
| pre hepatic | haemolytic anemia |
| hepatic | hepatitis |
| | alcohol |
| | primary biliary cirrhosis |
| post hepatic | gall stones in CBD |
| | bile duct stricture |
| | sclerosing cholangitis |
| | CA head of pancreas |
| | chronic pancreatitis |

| | |
|----------------------------|---------------------------|
| Causes of vomiting? | |
| GI | obstruction |
| | gastritis |
| inflammatory | cholecystitis |
| | pancreatitis |
| | hepatitis |
| metabolic | hypercalcaemia |
| | addison's |
| | uraemia |
| neurogenic | ↑ ICP |
| | pain |
| | vestibulocochlear disease |
| medication | cytotoxics |
| | opiods |
| | antibiotics |

| Causes of tremors? | |
|---------------------------------|---|
| postural (physiological) | anxiety |
| | Caffeine |
| | salbutamol |
| resting | parkinsons |
| intention | cerebellar disease e.g.MS, cerebrovascular disease |
| flapping | respiratory failure (type II) |
| | hepatic encephalitis |

| Signs of lesions | |
|------------------|----------------|
| UMN | LMN |
| ↑ tone | ↓ tone |
| ↑ reflexes | ↓ reflexes |
| clonus | fasciculations |
| extensor plantar | muscle wasting |

| Causes of papilloedema? |
|----------------------------|
| malignant hypertension |
| ↑ ICP |
| retinal venous obstruction |

| Causes of sudden blindness? |
|--------------------------------|
| retinal detachment |
| acute glaucoma |
| vitreous haemorrhage |
| retinal artery/vein thrombosis |
| ocular migraine |

| Nerve palsies | | |
|---------------|------------------------------|---|
| III | eye is pointing down and out | diabetes |
| | dilated pupil | MS |
| | ptosis | posterior communicating artery aneurysm |
| IV | eye pointing up | trauma |
| | head is tilted | diabetes |
| | | MS |
| VI | eye pointing medially | MS |
| | | raised ICP |
| | | trauma |
| V | sensory loss | herpes zoster |
| | | syringomyelia |
| | motor loss | myotonic dystrophy |
| | | MND |
| VII | UMN (forehead spared) | CVA |
| | | demyelination |
| | | pseudobulbar palsy |
| | | MND |
| | | LMN (forehead involved) |
| | | Bell's palsy |
| | | cerebellopontine angle lesion |
| | | GB syndrome |
| | | myasthenia gravis |
| VIII | conductive | wax |
| | | otitis media with effusion |
| | | perforated ear drum |
| | | pagets disease |
| | | otosclerosis |
| | | sensory |
| | | presbycusis |
| | | noise-induced |
| | | furosemide |
| | | acoustic neuroma |

| Gait abnormalities | |
|------------------------|-------------------------|
| antalgic (limp) | arthritis |
| | trauma |
| sensory ataxia | peripheral neuropathy |
| cerebral ataxia | cerebrovascular disease |
| | MS |
| hemiplegic | stroke |
| | MS |
| scissor | cerebral palsy |
| | MS |
| foot drop | common peroneal palsy |
| | L5 radiculopathy |
| waddling | proximal myopathy |
| parkinsonian | parkinsons disease |

| Causes of ptosis? | |
|-------------------|--------------------|
| myogenic | Horner's syndrome |
| | III nerve palsy |
| neurogenic | myasthenia gravis |
| | myotonic dystrophy |
| tendon | involutional |

| Causes of ↑ ICP? |
|-----------------------------|
| intracranial mass |
| " infection |
| obstructed CSF flow |
| hypertensive encephalopathy |
| hypercapnia |

| Causes of syncope? | | |
|--------------------------|--------------------------------|-------------------------|
| neurally mediated | vasovagal | |
| | situational | cough |
| | | sneeze |
| | | micturation |
| | carotid sinus hypersensitivity | |
| postural | autonomic failure | PD |
| | | diabetes |
| | | multiple system atrophy |
| | medication | antihypertensives |
| | hypovolaemia | haemorrhage |
| | | diarrhoea |
| | post prandial | |
| cardiac | arrhythmia | sick sinus syndrome |
| | | heart block |
| | | AF |
| | | long QT syndrome |
| | AS | |
| | HOCM | |
| | acute aortic dissection | |
| respiratory | PE | |
| psychogenic | anxiety | |
| | hyperventilation | |

| | | | |
|--------------------------|--------------------------------|----------------|------------------------------------|
| Bulbar IX, X, XII | tongue | fasciculations | GB syndrome |
| LMN | | wasting | syringobulbia |
| | | flaccid | MND |
| | | ↓ movements | |
| | dysphagia | | |
| | dysphonia | | |
| Pseudobulbar | tongue | spastic | MS |
| UMN | | ↓ movements | bilateral internal capsule infarct |
| | | dysphagia | MND |
| | high pitch voice (Donald duck) | | |

| Causes of neuropathy? | | | |
|------------------------------|-------------------------------|-------------------------|----------------|
| single nerve | mononeuropathy | carpal tunnel syndrome | |
| more than one single nerve | mononeuritis multiplex | | |
| multiple peripheral nerves | polyneuropathy | alcohol | |
| | | B vitamin deficiency | |
| | | diabetes | |
| | | drugs | isoniazid |
| | | endocrine | hypothyroidism |
| | | guillian barre syndrome | |
| | hemisensory loss | stroke | |
| spinal root lesions | radiculopathy | | |
| spinal cord lesion | | | |

| Causes of renal failure? | | | |
|--------------------------|--------------------|---------------------------|--|
| acute | pre-renal | hypoperfusion | dehydration |
| | | | renal artery obstruction |
| | | | ↓ cardiac output |
| | renal | glomerulonephritis | deposition of immune complexes |
| | | | deposition of non-immune material |
| | | | immune mediated attack against endothelial cells of glomerular capillaries |
| | | | immune mediated attack of basement membrane |
| | | acute tubular necrosis | hypoperfusion |
| | | | NSAIDs |
| | | | aminoglycosides |
| | | | contrast media |
| | | interstitial damage | NSAIDs |
| | | | antibiotics |
| | post-renal | stones | |
| | | | infection |
| | | | tumour |
| | | | prostate enlargement |
| chronic | hypertension | | |
| | diabetes | | |
| | glomerulonephritis | | |
| | congenital | polycystic kidney disease | |

| Causes of urinary retention? |
|------------------------------|
| diabetes |
| anticholinergics |
| post operatively |
| BPH |

| Causes of haematuria? | |
|-----------------------|-----------|
| kidney | tumours |
| | infection |
| | stones |
| | trauma |
| | nephritis |
| ureter | stones |
| | tumour |
| bladder | tumour |
| | infection |
| prostate | BPH, CA |
| urethra | trauma |

| Causes of urinary frequency? |
|------------------------------|
| ↑ fluid intake |
| alcohol |
| diabetes |
| kidney disease |
| detrusor instability |
| diuretics |

Haematology

| Causes of anaemia? | | | |
|--------------------|------------------------------|-----------------------|-----------------|
| microcytic | Fe deficiency | blood loss | menorrhagia |
| | | | GI bleeding |
| | | ↓ dietary intake | |
| | | malabsorption | coeliac disease |
| | thalassaemia | | |
| | sideroblastic anaemia | | |
| macrocytic | B12 deficiency | pernicious anaemia | |
| | | crohn's disease | |
| | | strict vegan | |
| | folate deficiency | ↓ dietary intake | |
| | | pregnancy | |
| | | antifolate medication | anticonvulsants |
| | ↑ alcohol | | |
| | myeloma | | |
| | myeloproliferative disorders | | |
| | myelodysplasia | | |
| normocytic | anaemia of chronic disease | | |
| | haemolysis | | |
| | acute blood loss | | |
| | bone marrow failure | | |
| | renal failure | | |
| | pregnancy | | |

| Causes of lymphadenopathy? | |
|----------------------------|--------------------------|
| infection | sepsis |
| | TB |
| | infectious mononucleosis |
| haematological | lymphoma |
| | leukaemia |
| malignancy | metastases |
| systemic disease | RA |
| | SLE |
| | sarcoidosis |

| Causes of polycythaemia? | | | |
|--------------------------|----------------------|-----------------------|---------------------------|
| true | primary | polycythaemia vera | |
| | secondary | hypoxia | cyanotic heart disease |
| | | | pulmonary disease |
| | | | chronic smoking |
| | | | high altitude |
| | | excess erythropoietin | renal cell carcinoma |
| | | | polycystic kidney disease |
| | | | adrenal tumour |
| | | | hepatocellular carcinoma |
| apparent | dehydration | | |
| | Gaissbock's syndrome | | |

| Causes of thrombocytosis? | |
|----------------------------|------------------------------|
| 1° haematological disorder | myeloproliferative disorders |
| 2° reactive | infection |
| | inflammation |
| | malignancy |

| Causes of thrombocytopenia? | |
|-----------------------------|--|
| ↓ platelet production | infection |
| | medication |
| | leukaemia |
| | myelodysplasia |
| ↑ platelet destruction | autoimmune idiopathic thrombocytopenia purpura |
| | heparin induced thrombocytopenia |
| | thrombotic thrombocytopenic purpura |
| | DIC |

| Causes of haemolytic anaemia? | | | |
|-------------------------------|--------------------------------------|--------------------------------------|------------|
| congenital | membrane deficit | spheocytosis | |
| | enzyme defect | G6PD deficiency | |
| | | pyruvate kinase deficiency | |
| | Hb defect | sickle cell anaemia | |
| | | thalassaemia | |
| acquired | immune | auto immune warm type (IgG mediated) | |
| | | autoimmune cold type (IgM mediated) | |
| | | medication | penicillin |
| | | acute transfusion reaction | |
| | non-immune | infection | malaria |
| | | microangiopathic anaemia | |
| | | mechanical heart valve | |
| | paroxysmal nocturnal haemoglobinuria | | |

| Causes of lymphocytosis? | |
|-------------------------------|----|
| viral infection | |
| chronic infection | TB |
| | |
| chronic lymphocytic leukaemia | |
| lymphoma | |

| Causes of eosinophilia? |
|---|
| allergic conditions |
| eczema |
| allergic bronchopulmonary aspergillosis |
| parasitic infection |

| Causes of neutrophilia? |
|------------------------------|
| infection |
| inflammation |
| malignancy |
| myeloproliferative disorders |
| necrosis |

| Causes of neutropenia? | |
|------------------------|-------------|
| post chemotherapy | |
| post radiotherapy | |
| medication | carbimazole |
| | clozapine |
| viral infection | |
| felty's syndrome | |

| Causes of hyponatraemia? | | |
|---------------------------------|------------------------|-----------|
| fluid depleted patient | diuretics | |
| | volume loss | vomiting |
| | | diarrhoea |
| | | burns |
| | hypoadrenalism | |
| normovolaemic patient | SIADH | |
| | hypothyroidism | |
| | psychogenic polydipsia | |
| fluid overloaded patient | cardiac failure | |
| | liver failure | |
| | renal failure | |
| | hypoalbuminaemia | |

| Causes of hypernatraemia? |
|---------------------------|
| dehydration |
| diabetes insipidus |
| excess IV fluids |

| Causes of hypokalaemia? | |
|-------------------------|---------------------------|
| medication | diuretic |
| intestinal loss | excess vomiting |
| | profuse diarrhoea |
| renal tubular disease | medication induced damage |
| endocrine | cushing's syndrome |
| | conn's syndrome |
| metabolic alkalosis | |

| Bone profile | | | |
|------------------------|------------------|-----------|-----|
| | Ca ²⁺ | phosphate | ALP |
| osteoporosis | ↔ | ↔ | ↔ |
| osteomalacia | ↔/↓ | ↓ | ↑ |
| pagets disease | ↔ | ↔ | ↑ |
| bony metastases | ↔/↑ | ↔/↑ | ↑ |
| 1o hyperparathyroidism | ↑ | ↓ | ↑ |
| 2o hyperparathyroidism | ↔ | ↑ | ↑ |
| 3o hyperparathyroidism | ↑ | ↓ | ↑ |

| Causes of hyperkalaemia? | |
|--------------------------|-----------------------------|
| renal failure | |
| artefact | |
| medication | potassium sparing diuretics |
| | potassium supplements |
| rhabdomyolysis | |
| endocrine | addison's disease |
| diabetic ketoacidosis | |

| Causes of Cushing's syndrome? | |
|-------------------------------|-------------------------------------|
| 1o adrenal disease | adrenal tumour |
| 2o ACTH excess | glucocorticoid medication |
| | pituitary gland (Cushing's disease) |
| | ACTH secreting tumour |

| Causes of SIADH? | |
|----------------------|----------------|
| intracranial | infection |
| | tumour |
| | head injury |
| intrathoracic | infection |
| | lung cancer |
| medication | carbamazepine |
| | antipsychotics |

| Causes of hyperprolactinaemia ? | |
|---------------------------------|--------------------------------------|
| physiological | pregnancy |
| | lactation |
| tumour | prolactin secreting pituitary tumour |
| medication | metoclopramide |
| | domperidone |
| | phenothiazine antipsychotics |
| endocrine | PCOS |