

GP Specialty Training Programme

MEDICINE

Relevant Sections of the RCGP Curriculum

- 2.02 Patient safety and quality of care
- 2.03 The GP in the wider professional environment
- 2.04 Enhancing professional knowledge
- 3.03 Care of acutely ill people
- 3.05 Care of older adults
- 3.09 End of life care
- 3.12 Cardiovascular health
- 3.12 Digestive health
- 3.14 Care of people who misuse drugs and alcohol
- 3.17 Care of people with metabolic problems
- 3.18 Care of people with neurological problems
- 3.19 Respiratory health

Learning Needs

To help identify learning needs in relation to the GP Curriculum the GPStR we recommend that you review the document below and highlight those areas where you feel less, this should be completed before the initial meeting of the GPStR with their Clinical Supervisor. In this meeting an educational plan for the post can be drawn up that identifies how these learning needs can be addressed and how and when they will be assessed, please record this as a placement planning meeting in your ePortfolio.

Assessments and Reviews

During this 6 month post it is the responsibility of the GPStR to arrange the following with their Clinical Supervisor:

- A placement planning meeting reviewing the learning objectives and producing an educational plan (within the first 3 weeks of the post)
- 3 CBD assessments
- 3 mini-CEX assessments
- Suggested CEPS - prostate examination, rectal examination, testing for blood glucose
- An end of post meeting to discuss your progress and entering the Clinical Supervisor's Report on the e-Portfolio

Please note that this is the minimum requirement for assessments and your Clinical Supervisor may feel that more are required in order for you to meet the required competency areas.

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Learning Objectives & Assessment in Medicine

What the GPStR can learn (adapted from AKT content guide)

CARDIOVASCULAR PROBLEMS

Symptoms and signs

- o Cardiac murmurs
- o Chest pain (including factors suggestive of cardiac origin)
- o Circulatory symptoms of ischaemia, thrombosis
- o Dyspnoea
- o Oedema – peripheral and central
- o Palpitations and arrhythmias
- o Syncope, dizziness and collapse including non-cardiovascular causes

Investigations

- Knowledge and application of current risk assessment tools such as CHADS2/CHADSVASC for atrial fibrillation, QRISK/ASSIGN /Framingham for CHD
- Relevant blood investigations such as cardiac enzymes, natriuretic peptides, D-dimer
- Secondary care interventions such as coronary angiography and stents, perfusion scanning, CT scans
- Specific cardiac investigations including ambulatory BP monitoring, ECG, exercise ECG, 24 hour and event monitoring ECGs, echocardiography

Specific conditions

- Acute cardiovascular problems including cardiac arrest, acute coronary syndrome, acute myocardial infarct, acute left ventricular failure, dissecting aneurysms, severe hypertension and life-threatening arrhythmias, cardiogenic shock, acute ischaemia of limbs and gut
- Anticoagulation relevant to cardiovascular diseases such as AF, myocardial ischaemia, peripheral vascular disease, stroke, including heparin, thrombolysis indications, oral anticoagulation
- Arrhythmias including conduction defects such as atrial fibrillation and flutter, heart block, supraventricular tachycardia, ventricular rhythm abnormalities
- Cardiomyopathies - primary and acquired, including dilated, hypertrophic obstructive
- Circulation disorders including arterial problems such as peripheral vascular disease, vasculitis, aneurysms (cerebral, aortic and peripheral) and venous problems such as venous thromboembolism, pulmonary embolism, Raynaud's disease, varicose veins, venous and arterial ulcers including interpretation of ABPI.
- Congenital heart disease such as coarctation of the aorta, VSD, ASD, PDA and presentation of these both in children and adults
- Coronary heart disease including complications such as mural thrombus, ventricular aneurysm, rhythm disturbance
- Drug-induced heart disease e.g. secondary to cancer treatment with chemotherapy/radiotherapy, recreational drugs
- Heart failure - acute and chronic including left ventricular dysfunction, right heart failure, cor pulmonale
- Hypertension – essential and secondary, malignant
- Infections such as viral myocarditis, infective endocarditis, pericarditis, rheumatic fever and complications
- Knowledge of pacemakers relevant to primary care such as complications and malfunction
- Pulmonary hypertension; primary and secondary to underlying causes such as fibrotic lung disease, recurrent pulmonary emboli

- Risk factors for coronary heart disease and other thromboembolic diseases such as lipid disorders, diabetes, hypertension. Screening and risk modification such as smoking cessation
- Valvular problems such as mitral, tricuspid, pulmonary and aortic stenosis and regurgitation

DIGESTIVE PROBLEMS INCLUDING NUTRITION

Symptoms and signs

- o Abdominal masses and swellings including organ enlargement such as splenomegaly and hepatomegaly
- o Abdominal pain including the differential diagnosis from non-gastrointestinal causes e.g. gynaecological or urological
- o Ascites
- o Chest pain
- o Constipation, diarrhoea, change in bowel habit, tenesmus, faecal incontinence
- o Cough
- o Disturbance of smell and taste
- o Dyspepsia, heartburn
- o Dysphagia
- o Haematemesis
- o Hiccups
- o Jaundice
- o Mouth ulceration, leukoplakia, salivary problems
- o Nausea and vomiting including non-gastrointestinal causes
- o Obesity, weight gain, anorexia and weight loss
- o Pruritus
- o Rectal bleeding

Investigations

- Interpretation of stool culture results
- Investigations such as endoscopy, ultrasound and other scans, interpretation of relevant tests such as those for *Helicobacter pylori* infection, coeliac disease
- Knowledge of secondary care interventions such as endoscopy, laparoscopic surgery, ERCP, radiological investigations including contrast and CT scans
- Screening programmes for colorectal cancer such as occult blood testing, sigmoidoscopy, colonoscopy
- Tests of liver function including interpretation of immunological results, markers of malignancy e.g. CEA and AFP

Specific conditions

- Acute abdominal conditions such as appendicitis, acute obstruction and perforation, diverticulitis, Meckel's diverticulum, ischaemia, volvulus, intussusception, gastric and duodenal ulcer, pancreatitis, cholecystitis, biliary colic, empyema, renal colic
- Chronic abdominal conditions such as irritable bowel syndrome, inflammatory bowel disease, diverticular disease, coeliac disease
- Hernias – inguinal, femoral, diaphragmatic, hiatus, incisional

o Upper GI conditions

- Gastrointestinal haemorrhage including oesophageal varices, Mallory-Weiss syndrome, telangiectasia, angiodysplasia, Peutz-Jeghers syndrome
- Gastro-oesophageal reflux disease, non-ulcer dyspepsia, peptic ulcer disease; *H.pylori*, hiatus hernia
- Oesophageal conditions including achalasia, malignancy, benign stricture, Barrett's oesophagus, globus

o Lower GI conditions

- Constipation – primary and secondary to other systemic diseases such as hypothyroidism, drug-induced, hypercalcaemia
- Diarrhoea
- Gastrointestinal infection including toxins such as *C. difficile* and *E coli*, bacterial causes such as salmonella, campylobacter, amoebic dysentery, viral causes such as rotavirus, norovirus and parasitic causes such as *Giardia lamblia*
- Gastrointestinal malignancies including oesophageal, gastric, pancreatic, colorectal, carcinoid, lymphoma
- Inflammatory bowel disease such as Crohn's disease, ulcerative colitis
- Malabsorption including coeliac disease, lactose intolerance, secondary to pancreatic insufficiency such as chronic pancreatitis, cystic fibrosis, bacterial overgrowth
- Rectal problems including anal fissure, haemorrhoids, perianal haematoma, ischio-rectal abscesses, prolapse, polyps, malignancy

o Liver, gallbladder and pancreatic disease

- Assessment and investigation of abnormal liver function tests. Differential diagnosis of underlying causes such as fatty liver/ non-alcoholic steatohepatitis, drug-induced, infection, cirrhosis, autoimmune disease
- Cirrhosis and its causes such as alcohol, non-alcoholic steatohepatitis /fatty liver and autoimmune diseases such as primary biliary cirrhosis, chronic active hepatitis, α -1 antitrypsin deficiency, Wilson's disease, haemolysis
- Gallbladder disease such as gallstones, cholecystitis, biliary colic, empyema, malignancy
- Liver infections such as viral hepatitis, leptospirosis, hydatid disease
- Liver malignancy – primary and metastatic
- Liver toxins including drugs such as paracetamol, chemicals and alcohol
- Pancreatic diseases including acute pancreatitis, chronic pancreatitis, malabsorption, malignancy including islet cell tumours
- Secondary effects of liver diseases such as ascites, portal hypertension, hepatic failure

o Nutrition

- Complications and management of stomas
- Dietary management of disease or inadequate intake
- Disorders of weight; obesity and weight loss including non-nutritional causes such as thyroid disease and other endocrine conditions
- Nutritional problems such as vitamin and mineral deficiencies, supplementary nutrition such as dietary, PEG and parenteral feeding

ALCOHOL AND SUBSTANCE MISUSE PROBLEMS

- Evidence-based screening, brief interventions for alcohol misuse
- Knowledge of the barriers to care for people who misuse alcohol or drugs
- Knowledge of the dangers of drink/drug driving and the Dr's responsibilities in relation to advising and reporting on this
- Knowledge of the different forms of harmful alcohol and drug use and how this may present (e.g. calculation of units, safe levels of alcohol intake, excessive use, binges, risk-taking behaviours or dependency)
- Physical consequences of alcohol abuse including cirrhosis, portal hypertension, oesophageal varices, vitamin deficiencies, Wernicke-Korsakof syndrome
- Principles of harm reduction and health promotion for people who misuse drugs and alcohol
- Role of wider primary healthcare team including pharmacists, specialist services, the voluntary and criminal justice sectors
- Screening for blood-borne viruses and indications for immunisation
- Signs and symptoms of drug/alcohol misuse, as well as the signs and symptoms of withdrawal
- The short- and long-term sequelae of alcohol and drug misuse, including physical, mental and social harms and the

impact on children, families and work life

METABOLIC AND ENDOCRINE PROBLEMS

Symptoms and signs

- o Collapse and coma
- o Gastrointestinal symptoms such as nausea, vomiting, diarrhoea, constipation
- o Headache and visual problems
- o Joint pains and muscle problems
- o Polydipsia and polyuria
- o Pruritus
- o Thirst
- o Tiredness, lethargy
- o Weight gain/weight loss

Investigations

- Imaging and tests of endocrine and metabolic dynamic function
- Normal biochemical parameters and interpretation of laboratory investigations such as renal, liver, thyroid, glucose, pancreatic, adrenal, pituitary, hypothalamic, ovarian and testicular function

Specific conditions

- Adrenal diseases including Addison's disease, Cushing's syndrome and disease, pheochromocytoma, hyperaldosteronism, primary and secondary malignancy, ACTH secreting tumours, congenital adrenal hyperplasia
- Adverse metabolic effects of prescribed drugs e.g. hypokalaemia with diuretics
- Carcinoid syndrome, multiple neuroendocrine neoplasia
- Causes of hyperprolactinaemia such as drug-induced, chronic renal failure, bronchogenic carcinoma, hypothyroidism
- Diabetes mellitus type 1, type 2, and rarer types such as MODY (maturity onset diabetes of the young). Disorders of glucose metabolism such as impaired fasting glucose, impaired glucose tolerance, insulin resistance, gestational diabetes, associated system disorders such as skin and eye manifestations, renal and neurological complications. Acute complications such as hypoglycaemia, diabetic ketoacidosis, non-ketotic hyperglycaemia
- Disorders of calcium metabolism – hypoparathyroidism, hyperparathyroidism, osteomalacia and vitamin D disorders, association with chronic kidney disease, malignancy such as bony metastases and myeloma
- Disorders of sex hormones such as hirsutism, virilism, gynaecomastia, impotence, androgen deficiency, androgen insensitivity syndrome
- Endocrine manifestations of non-endocrine diseases e.g. bronchogenic carcinoma with inappropriate ADH secretion
- Haemochromatosis – primary and secondary, and other disorders of iron metabolism
- Hyperlipidaemias – familial and acquired
- Hyperuricaemia – primary and secondary including haematological causes, drug-induced
- Hypothalamic causes of hormonal disturbances including hyperprolactinaemia, drug-induced
- Inherited metabolic diseases e.g. phenylketonuria, glycogen storage diseases
- Metabolic causes of unconsciousness e.g. hypoglycaemia, diabetic ketoacidosis, hyponatraemia, hypothyroidism, adrenal crisis
- Pituitary diseases including acromegaly, primary and secondary hypopituitarism, diabetes insipidus
- Poisoning including by food, drugs (prescribed, over the counter or non-medicinal) or other chemicals whether deliberately or unintentionally ingested, inhaled or absorbed
- Psychogenic polydipsia
- Replacement and therapeutic steroid therapy
- Thyroid diseases including goitre, hypothyroidism, hyperthyroidism, benign and malignant tumours, thyroid eye disease, thyroiditis, neonatal hyper- and hypo-thyroidism

NEUROLOGICAL PROBLEMS

Symptoms and signs

- o Cognitive impairment such as memory loss, delirium and dementia
- o Disturbance of smell and taste
- o Falls
- o Features differentiating between upper and lower motor neurone function
- o Headache
- o Movement disorders such as athetosis, chorea, tremor
- o Neuralgic and neuropathic pain
- o Nystagmus
- o Peripheral nerve and root symptoms and signs including dermatomes and reflexes
- o Restless legs
- o Seizures, convulsions, collapse, dizziness
- o Sensory and motor symptoms – weakness, spasticity, paraesthesia,
- o Speech and language deficits
- o Visual problems such as diplopia, ptosis, pupillary abnormalities and visual field defects

Investigations

- Knowledge to interpret clinical findings such as reflexes, sensory and motor testing, tests of cranial nerve function, fundoscopy and visual assessment e.g. visual fields
- Relevant investigations such as CT, MRI scans, nerve conduction studies, lumbar puncture
- Tests of cognition and interpretation in relation to dementia and associated diseases

Specific conditions

- Acute confusional states or coma with underlying causes such as metabolic, infective, drug-induced
- Autonomic neuropathies such as diabetic, drug induced, metabolic, multi-system atrophy
- Cerebellar disorders including tumours, demyelination such as multiple sclerosis and inherited such as Friedrich's ataxia
- Chronic fatigue syndrome
- Complex regional pain syndrome
- Cranial nerve disease such as Bell's palsy, trigeminal neuralgia, bulbar palsy
- Dementia such as Alzheimer's, vascular, Lewy body, Pick's disease, normal pressure hydrocephalus, other causes of memory loss and confusion
- Epilepsy including generalised and focal seizures, febrile convulsions and other causes of seizures such as hypoglycaemia, alcohol and drugs
- Head injuries with or without loss of consciousness, concussion and more serious cranial or intracranial injuries, and relevant long-term care with brain injuries including secondary epilepsy and behavioural problems
- Headaches including tension, migraine, cluster, raised intracranial pressure including idiopathic intracranial hypertension
- Infections such as meningitis, encephalitis, arachnoiditis
- Inherited neurological diseases such as Huntington's disease, Charcot- Marie-Tooth, myotonic dystrophy, neurofibromatosis
- Intracranial haemorrhage including subarachnoid, subdural and extradural and thrombosis such as sinus thromboses, congenital aneurysms
- Motor neurone disease including progressive bulbar palsy and muscular atrophy
- Movement disorders including tremor and gait problems including athetosis, chorea, tardive dyskinesia, dystonia, tics. Underlying causes such as Sydenham's chorea, Huntington's disease, drug-induced, parkinsonism
- Multiple sclerosis and other demyelinating disorders such as transverse myelitis
- Muscle disorders such as muscular dystrophy, myasthenia gravis and associated syndromes
- Parkinson's disease and Parkinsonism secondary to other causes such as drugs
- Sensory and/or motor disturbances (peripheral nerve problems) including mono- and poly-neuropathies such as nerve compression and palsies, Guillain-Barré syndrome

- Speech disorders including stroke, cerebellar disease, cerebral palsy, motor neurone disease
- Spinal cord disorders such as root and cord compression, cauda equina syndrome, spinal stenosis, syringomyelia
- Spinal injuries causing paralysis and relevant care of tetra- and paraplegic patients including bowel and bladder care, potential complications such as pressure sores, autonomic dysfunction, aids to daily living and mobility
- Stroke including transient ischaemic attacks, with underlying causes such as cardiac arrhythmias, arterial disease, thrombophilia
- Tumours of the brain and peripheral nervous system such as meningiomas, glioblastomas, astrocytomas, neurofibromatosis, secondary metastases

PALLIATIVE and END-of-LIFE CARE

End-of-life care is often symptom based and therefore it will overlap with all the preceding system lists. Other areas to consider would include the following:

- Approaches to supporting carers and bereavement, including awareness of different religious and cultural beliefs and practices
- Emergencies in palliative care such as severe pain, spinal cord compression, haemorrhage, hypercalcaemia, superior vena cava compression
- Ethical issues in palliative and end-of-life care using current GMC guidance: autonomy (consent, confidentiality, breaking bad news, 'best interests'), beneficence and non-maleficence (principle of 'double effect', withdrawing treatment), equity ('ordinary vs. extraordinary means), euthanasia, advance care planning
- Therapeutics (as detailed in the BNF) for palliative care for cancer and other long term conditions including symptomatic relief of pain; gastrointestinal symptoms (e.g. nausea and vomiting, oral symptoms such as ulceration, constipation, diarrhoea, hiccough); respiratory symptoms (e.g. breathlessness, excessive secretions, cough); cachexia, anorexia and fatigue; skin (e.g. itch) and psychological problems (e.g. insomnia, anxiety, depression, restlessness)

RENAL PROBLEMS

Symptoms and signs

- o Abdominal masses
- o Dysuria
- o Incontinence
- o Oliguria, polyuria, frequency and nocturia
- o Proteinuria
- o Thirst

Investigations

- Interpretation of results such as ultrasound of renal tract, urine analysis including culture and biochemistry, serum biochemical parameters such as calcium, parathyroid hormone, vitamin D metabolism, creatinine and eGFR

Specific conditions

- Acute kidney injury including diagnosis, causes such as 'drug-induced' and primary care management
- Catheters – types, indications, management. Use in paraplegic patients, self catheterisation
- Chronic kidney disease including underlying causes such as glomerulonephritis, connective tissue diseases, diabetes, hypertension. Monitoring and referral criteria
- Haematuria of any cause including infection, glomerulonephritis, nephritic syndrome, malignancy, stones
- Inherited kidney diseases such as polycystic kidney disease
- Knowledge of renal dialysis including peritoneal and haemodialysis including complications that may be encountered in primary care such as infection of catheter sites, fluid balance disturbance
- Prescribing in renal disease as per BNF guidance: principles of dose adjustment in renal impairment
- Proteinuria (including microalbuminuria) of any cause including nephrotic syndrome, glomerulonephritis, secondary to systemic diseases such as diabetes and hypertension, malignancy such as multiple myeloma, connective tissue diseases
- Renovascular disease such as renal artery stenosis, diabetes

- Urinary tract infections

RESPIRATORY PROBLEMS

Symptoms and signs

- o Chest pain
- o Clubbing
- o Collapse
- o Cough
- o Cyanosis
- o Dyspnoea – acute and chronic
- o Haemoptysis
- o Pleural effusion
- o Stridor & hoarseness
- o Wheezing

Investigations

- Disease scoring tools e.g. CURB for community acquired pneumonia
- Indications for chest-x-rays and CT and MRI scans, bronchoscopy
- Interpretation of primary care investigations such as peak expiratory flow rates, spirometry, pulse oximetry, sputum culture

Specific conditions

- Asthma – acute and chronic in children and adults
- Bronchiectasis
- Chronic obstructive pulmonary disease
- Connective tissue diseases affecting the lung, such as rheumatoid arthritis, SLE, sarcoidosis
- Cough including haemoptysis, and non-respiratory causes such as GORD
- Cystic fibrosis
- Emphysema including α_1 -antitrypsin deficiency,
- Immunosuppression affecting the respiratory system including opportunistic infections such as TB, fungal, parasitic
- Indications for the use of oxygen in emergency, acute and chronic management including domiciliary oxygen and use in palliative care
- Lower respiratory tract infections, e.g. bronchiolitis, bronchitis, pertussis and pneumonia (of any cause), atypical pneumonias including Legionnaire's disease, tuberculosis
- Lung fibrosis and associated causes including adverse drug reactions
- Occupational respiratory diseases such as the pneumoconioses, asthma, extrinsic allergic alveolitis, asbestos related disease
- Pleural effusion causes including infection, connective tissue diseases, malignancies
- Pneumothorax including simple and tension
- Pulmonary embolism
- Respiratory failure and methods of ventilation such as CPAP for sleep apnoea
- Respiratory malignancies including laryngeal, bronchial and pleural such as mesothelioma. Primary and secondary lung malignancies, and related para-neoplastic syndromes
- Stridor and hoarseness – differential diagnosis including assessment of urgency for investigation and management