

**Oxford University Final Exam Syllabus 2015-2016.**

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Director of Clinical Studies at the University of Oxford.

Topics represented in the flashfinals library are highlighted in  
green.

## **Integrated curriculum in medicine and surgery 2015-16**

### ***Contents of the curriculum***

The curriculum encompasses teaching relevant to medicine and surgery in years 4, 5 and 6 of the course and is organised into eleven content areas. For each content area the curriculum specifies learning objectives and a description of the core topics in which you are expected to demonstrate knowledge and skills. The eleven content areas are:

1. Emergency care
2. Acute and in-patient care
3. Chronic and continuing care
4. Prevention
5. Therapeutics
6. Rehabilitation
7. Palliative Care
8. Procedures and investigation
9. Communication skills
10. Referral skills
11. Ethics, law and professionalism

Under each heading, the curriculum contains a description of the learning objectives and the areas in which you should aim to acquire skills and knowledge. Assessments will be based on this curriculum.

### ***What depth of knowledge is required?***

The aim of the curriculum is for you to attain the skills and knowledge to function as a competent Foundation Year One (FY1) doctor in medicine, surgery or general practice. This is the standard against which you will be measured in the 2<sup>nd</sup> BM examination in year six.

The depth of knowledge required is broadly equivalent to that provided in the following textbooks of medicine and surgery:

- Kumar P.J. and Clark M.L. Clinical Medicine
- Munro J.F. and Campbell I.W. (editors). MacLeod's Clinical Examination.
- Browse N. An Introduction to the symptoms and signs of surgical disease.
- Ellis H., Calne R., Watson C. Lecture notes on general surgery.

However, no single textbook encompasses all the knowledge you will need as a FY1. The best way to judge what you should be aiming for is to participate in clinical care, noting the common conditions and the responsibilities of the FY1 in managing them.

In addition, information in textbooks (especially about treatment) rapidly becomes out of date. Material in texts should be augmented by ward experience, clinical teaching and reading of medical journals.

## ***Is there a difference in expectations in years 4 and 6?***

There is no clear distinction between the knowledge and skills required in each year of the course and you should use this curriculum as a guide to learning in medicine and surgery throughout years 4-6. However, there are different expectations of the standard you should achieve in each year. These expectations are reflected in the content and structure of assessments.

By the end of year 4 you are expected:

- To demonstrate clinical skills of history, examination, communication, and practical procedures
- To demonstrate knowledge of the patho-physiology and presentation of illness of common or important conditions in medicine and surgery. The year 4 logbook will give you guidance about which core topics you should prioritise during the year
- To describe the indications for common clinical investigations and their interpretation

In year 6 the main aims are:

- To demonstrate application of the clinical skills learnt in year 4 to the standard of a FY1 doctor.
- To demonstrate knowledge and skills in clinical care, diagnosis, management and therapeutics to the level required of a competent FY1 doctor.
- To interpret and apply evidence in clinical practice.

In the 2<sup>nd</sup> BM examination, you may be asked to demonstrate and apply any of the knowledge and skills specified in this curriculum.

## ***Where will I acquire core knowledge and skills?***

You will have the opportunity to learn about the topics in the curriculum on different attachments and at different points during the three years of the course. However, most of the learning will take place on medical and surgical attachments in Oxford and in District General Hospitals in years 4 and 6. To help you plan your learning, the curriculum indicates the attachments where you will have the greatest opportunities to learn about particular topics. In addition, you will receive specialised teaching on practical skills in the skills laboratory and in communication in the communication skills course. You will learn about the patho-physiology of disease in The Laboratory Medicine Course in year 4, and about law and ethics during the year 4 thread course.

## ***Content area 1: Emergency care***

### **Learning objectives**

- To demonstrate recognition and assessment of core emergency presentations
- To demonstrate first contact care including resuscitation, practical procedures and prescription of initial drug treatments
- To describe the initial investigation of patients presenting with core conditions.
- To describe the principles of further management requiring senior staff or specialists.

## Core topics in emergency care

### *Mainly learnt on Medical rotations*

#### Approach to the acutely breathless patient:

*Respiratory failure types 1 and 2, acute asthma, pulmonary embolism, tension pneumothorax, acute left ventricular failure, pneumonia, exacerbation of COPD*

#### Approach to the hypotensive patient:

*Shock including sepsis, hypovolaemia, gastrointestinal bleeding, acute myocardial infarction, dysrhythmias, cardiac tamponade, anaphylaxis*

#### Approach to the patient with disordered consciousness:

*Delirium, meningitis, coma, severe headache, intracranial haemorrhage and infarction, status epilepticus, raised intracranial pressure*

#### Approach to endocrine and metabolic emergencies:

*Diabetic ketoacidosis, hyperosmolar non-ketotic state, hypoglycaemia, hyperkalaemia, Addisonian crisis, hypothermia*

#### Acute poisoning and self-poisoning:

*Paracetamol, opiates, aspirin, carbon monoxide, tricyclic antidepressants, psychological care of the patient with deliberate self-harm*

#### Approach to the patient with oliguria:

*Pre-renal failure, obstruction, acute tubular necrosis, fluid management, recognition of hyperkalaemia*

#### Approach to the patient with acute chest pain:

*Acute coronary syndrome, myocardial infarction, pulmonary embolism, aortic dissection*

#### Approach to the patient with sickle cell crisis:

*Recognition and management of painful crisis and sickle chest syndrome*

#### Approach to the patient with accelerated hypertension

#### Cardiac arrest

### *Mainly learnt on surgical rotations*

#### Approach to the patient with an acute abdomen:

*Appendicitis, pancreatitis, peptic ulcer, perforated viscus, abdominal aortic aneurysm, complications of gallstones, intestinal obstruction, renal colic, pyelonephritis, diverticulitis, ectopic pregnancy, salpingitis, ruptured ovarian cyst*

#### Approach to the patient with a vascular emergency:

*Ruptured aortic aneurysm and aortic dissection  
Ischaemic limb*

#### Approach to the patient with acute testicular pain:

*Torsion of the testis, epididymo-orchitis*

#### Approach to the patient with burns:

*Resuscitation, assessment of size of burn, complications*

#### Approach to the patient with major trauma:

## *Primary and secondary survey, neck, chest, abdominal and head injuries*

### **Content area 2: Acute and in-patient care**

#### **Learning objectives**

- To demonstrate diagnosis, assessment and initial treatment for common and/or serious conditions that the FY1 doctor is likely to encounter in a hospital or primary care setting.
- To demonstrate assessment and management of pre-operative care of conditions leading to elective surgery
- To describe diagnosis and management of common peri and post-operative complications.

#### **Core medical and surgical topics in acute and in-patient**

##### **care Cardiovascular disease**

*Mainly learnt on medical rotations:*

Approach to the patient with chest pain

Approach to the patient with palpitations and cardiac arrhythmias

Approach to the patient with syncope

Approach to the patient with shortness of breath

Approach to the patient with a heart murmur

Approach to the patient with a swollen leg

Approach to the patient with a painful limb

Interpretation of the 12-lead ECG

Hypertension: *essential vs secondary hypertension, investigation and management of the hypertensive patient, indications for and adverse effects of diuretics, calcium channel blockers, ACE inhibitors and angiotension receptor blockers, beta blockers, alpha blockers.*

Angina pectoris: *investigation and management of stable angina: role of stress testing, risk factor modification, symptom control*

Heart failure: *Clinical findings, chest xray features. Causes and patho-physiology: factors affecting pre-load, after-load and contractility. Approach to treatment based on pathophysiology: diuretics, ACE inhibitors, beta blockers, spironolactone, digoxin*

Arrhythmias: *Atrial fibrillation: clinical and ECG recognition, causes, complications, rate vs rhythm control, indications for anticoagulation. Differentiation of narrow and broad complex tachycardias on ECG. Recognition of re-entrant tachycardia, atrial flutter and ventricular tachycardia.*

Evaluation of heart murmurs: *Clinical presentation and physical examination findings in: aortic stenosis, aortic regurgitation, mitral regurgitation, mitral stenosis, tricuspid regurgitation, ventricular septal defect, HOCM. Investigation of the patient with a heart murmur: ECG, CXR, echocardiogram, angiography.*

Approach to the patient with syncope *Causes: postural hypotension, cardiac arrhythmia, carotid sinus hypersensitivity, epilepsy, vasovagal. Clinical assessment. Investigation: ECG, ambulatory monitoring, tilt table*

Pericarditis and pericardial effusion: *symptoms, signs, ECG and chest xray findings*

Deep vein thrombosis: *Differential diagnosis of the swollen leg: cellulitis, Ruptured Baker's cyst, muscle and soft tissue injury. Risk factors for DVT. Calculation of pre-test probability from clinical features (Well's score). Tests for DVT: D-dimer, ultrasound, calculation of posttest probability. Principles of treatment: low molecular weight heparin, warfarin. Investigation of unexplained or recurrent DVT.*

*Mainly learnt on surgical rotations*

Peripheral vascular disease: *Assessment and management of risk factors for intermittent claudication, assessment and management of the acutely ischaemic limb*

Aortic aneurysm: *symptoms, indications for surgery, emergency management, screening, surveillance*

Varicose veins: *Clinical assessment (Tourniquet test not required), treatment*

Carotid stenosis: *Methods of assessment, indications for carotid surgery*

## Respiratory

Approach to the patient with pleuritic chest pain

Approach to the patient with chronic shortness of breath

Approach to the patient with cough

Approach to the patient with haemoptysis

Approach to the patient with wheeze

Approach to the patient with stridor

Interpretation of the chest x-ray

Respiratory failure: *Definition of types 1 and 2, clinical features, interpretation of arterial blood gases, principles of oxygen therapy.*

Acute and chronic asthma: *diagnostic criteria, clinical features, evaluation of severity, principles of treatment.*

Pulmonary embolism: *clinical features, calculation of pre-test probability, investigation (perfusion scan, CTPA), calculation of post-test probability.*

Pneumothorax: *simple vs tension, primary vs secondary, clinical features*

COPD: *Definition, clinical features, identification of exacerbations.*

Cardiac failure.

Pulmonary fibrosis: *symptoms and signs, restrictive pattern on spirometry, chest xray abnormalities.*

Pleural effusion: *Causes (transudate vs exudate), clinical features, investigation (pleural tap, CT scan, pleural biopsy)*

Community acquired pneumonia: *prognostic indicators (CURB score), pathogens, choice of antibiotics*

Bronchiectasis: *aetiology, clinical findings*

## Gastroenterology

*Learnt on both medical and surgical rotations*

Approach to the patient with constipation or diarrhoea

Approach to the patient with change in bowel habit

Approach to the patient with jaundice

Approach to the patient with vomiting

Approach to the patient with haematemesis and malaena

Approach to the patient with dysphagia

Approach to the patient with dyspepsia

Approach to the patient with rectal bleeding  
Approach to the patient with malabsorption  
Approach to the patient with an abdominal mass  
Approach to the patient with abdominal distension  
Approach to the patient with weight loss  
Evaluation of iron deficiency anaemia

Upper gastrointestinal haemorrhage: *common causes: peptic ulcer, gastritis, oesophageal varices, carcinoma of stomach, Mallory-Weiss tear. Clinical features and assessment (Rockall score). Treatment and further investigation.*

Dysphagia: *Carcinoma of oesophagus and stomach, benign strictures, achalasia, neurological problems. Investigation: endoscopy, barium swallow, manometry.*

Dyspepsia: *Non-ulcer dyspepsia, peptic ulcer, carcinoma of stomach and oesophagus, gastritis, reflux oesophagitis, biliary colic. Risk assessment: 'red flag' symptoms.*

*Investigation: triage for endoscopy, role of Helicobacter pylori testing. Principles of medical and surgical treatment.*

Jaundice: *Classification and clinical features of jaundice as pre-hepatic, hepatic and post-hepatic. Investigation of jaundice: biochemistry, imaging. Hepatic causes of jaundice: viral, alcohol, drugs, auto-immune. Cholestatic jaundice: gall stones, carcinoma of pancreas and cholangiocarcinoma, cholangitis*

Inflammatory bowel disease: *Clinical features of Crohn's disease and ulcerative colitis. Recognition and management of acute colitis.*

Irritable bowel syndrome: *Diagnostic criteria and clinical features*

Coeliac disease: *Clinical presentations of malabsorption, diagnosis by antibody tests and biopsy, principles of dietary treatment*

Acute pancreatitis: *Clinical features including complications of organ failure.*

*Investigations and prognostic risk stratification. Treatment with analgesia and fluids.*

*Recognition of the seriously ill patient.*

Chronic pancreatitis: *Clinical features of malabsorption and pain. Investigation: faecal elastase, imaging.*

Gallstones: *Biliary colic, cholecystitis, ascending cholangitis, gall-stone ileus*

Pancreatic cancer: *Clinical presentations including obstructive jaundice.*

Diverticular disease: *Presentations with bleeding, infection, obstruction, abscess, fistula formation. Initial management of uncomplicated diverticulitis with fluids, analgesia and antibiotics.*

Appendicitis: *Clinical features, investigation and management.*

Intestinal obstruction: *Clinical features. Differentiation of small from large bowel obstruction on xray. Causes of small and large bowel obstruction. Principles of management.*

Colorectal cancer. *Clinical presentation. Approach to staging and surgical management*

Haemorrhoids and anal fissures: *Classification of haemorrhoids. Diagnostic evaluation of the patient with rectal bleeding.*

Cancer of stomach and oesophagus. *Clinical presentation. Principles of staging. Risks of oesophagectomy and gastrectomy.*

Acute and chronic liver disease: *Causes: alcoholic, auto-immune, viral, metabolic.*

*Complications including ascites, gastrointestinal haemorrhage, ascites, encephalopathy.*

Abdominal and groin swellings : *Differential diagnosis of abdominal distension: ascites, masses, gas, pregnancy, faeces. Differential diagnosis of palpable abdominal masses*

*hepatomegaly, splenomegaly, masses arising from bowel, aortic aneurysm. Differential diagnosis of groin lumps: hernias, lymph nodes, vascular swellings.*

## Nephrology/Urology

### *Mainly learnt on medical rotations*

Acute renal failure: *Pre-renal, renal and post-renal causes for oliguria. Clinical assessment of the oliguric patient. Laboratory features of acute renal failure. Complications of acute renal failure: hyperkalaemia, pulmonary oedema, acidosis, uraemic encephalopathy, hypertension.*

Hyponatraemia and hypernatraemia: *Differential diagnosis of hyponatraemi: euvolaemic, hypervolaemic and hypovolaemic causes.*

Hyperkalaemia and hypokalaemia: *ECG changes. Treatment of hyperkalaemia with calcium gluconate, glucose and insulin, ion exchange resins, dialysis. Treatment of hypokalaemia, oral and intravenous approaches.*

Proteinuria, nephritic and nephrotic syndromes: *differential diagnosis, complications, investigation Note: knowledge of different histological types of glomerulonephritis not required*

Chronic renal failure: *symptoms, complications principal causes, investigation, management*

Indications for dialysis: *pulmonary oedema/fluid overload, hyperkalaemia, uraemia*

Polycystic kidney disease: *inheritance, clinical presentations*

Drug dosing in renal failure

### *Mainly learnt on surgical rotations*

Approach to the patient with difficulty in passing urine

Approach to the patient with urinary retention

Approach to the patient with pain on passing urine

Approach to the patient with haematuria

Benign prostatic hypertrophy: *investigation, medical management with alpha blockers/finasteride, surgical management, complications of TURP*

Cancer of prostate, kidney, bladder and testis: *symptoms, investigation, principles of management*

Renal tract stones: *aetiology, symptoms, investigation with spiral CT, management*

Scrotal masses: *Differential diagnosis of scrotal masses: hernia, carcinoma, hydrocoele, epididymal cyst, varicocele, torsion, epididymoorchitis*

Urinary tract infection: *causative organisms, clinical features, principles of treatment*

Haematuria: *upper and lower tract causes, medical causes. Investigation: urinalysis, blood tests, imaging, cystoscopy.*

Retention of urine: *acute and chronic, causes: bladder outflow obstruction, neurological, drugs, constipation. Urinary catheterisation*

## Infectious disease

### *Mainly learnt on medical rotations*

Approach to the patient with fever of unknown origin

Approach to fever in the returning traveller: *common causes of fever in the returning traveller: (malaria, dengue fever, typhoid, diarrhoeal illness. Initial plan of investigation.*

Malaria: *diagnosis, prognostic features, complications, prevention, treatment*

Endocarditis: *Clinical features, Duke criteria for diagnosis, complications, principles of treatment*

Tuberculosis: *clinical features, drug treatment including adverse effects of rifampicin, isoniazid, pyrazinamide and ethambutol, public health measures*

HIV infection and AIDS-related infections: *pneumocystis pneumonia, Kaposi's sarcoma, toxoplasma gondii, tuberculosis, principles of HAART*

Cellulitis: *Assessment and indications for in-patient treatment, microbiology, choice of antibiotics, skin care*

Meningitis: *Clinical features: headache, fever, photophobia, neck stiffness, rash with meningococcal disease. Organisms: meningococcus, strep. Pneumoniae, haemophilus influenzae, listeria, viruses, tuberculosis, cryptococcus in immunosuppressed. Lumbar puncture: CSF features by type of infecting organism. Contra-indications to LP (predominant sepsis syndrome, raised intracranial pressure, bleeding disorder). Treatment: ceftriaxone, addition of ampicillin if listeria suspected, role of corticosteroids*

*Mainly learnt on surgical rotations*

Approach to the patient with fever following surgery: *urinary tract infection, pneumonia, wound infection, line infection, DVT, anastomotic leak, abscess*

## **Endocrine/metabolic/breast**

*Mainly learnt on medical rotations*

Diabetes mellitus types 1 and 2: *Diagnostic criteria, dietary and drug treatment of hyperglycaemia, management of blood pressure and serum lipids, monitoring and treatment of macro-vascular and micro-vascular complications*

Hyperthyroidism: *Differential diagnosis and causes (Grave's disease, multinodular goitre, toxic adenoma, drug induced). Management according to cause, medical, ablative and surgical treatment. Adverse effects of carbimazole*

Hypothyroidism: *Clinical features, diagnosis, prescription of thyroid hormone replacement*

Cushing's syndrome: *Clinical features, diagnosis, adverse effects of exogenous corticosteroids*

Addison's: *causes, clinical features, diagnostic criteria, treatment.*

Hypopituitarism: *Clinical features*

Hypercalcaemia: *Differential diagnosis especially hyperparathyroidism and malignancy. Emergency management with fluids and bisphosphonates.*

Hyperparathyroidism: *diagnosis, complications of parathyroidectomy.*

Hypocalcaemia: *differential diagnosis including renal failure, osteomalacia, hypoparathyroidism.*

Hormone replacement therapy: *indications for oestrogen replacement, adverse effects of oestrogen.*

*Mainly learnt on surgical rotations*

Neck lumps: *Surgical anatomy of neck, anterior and posterior triangles. Differential diagnosis of neck lumps: lymph nodes, thyroid nodules and goitre, thyroglossal cyst, branchial cyst, sebaceous cyst, lipoma, carotid swellings.*

Breast lumps: *Causes and clinical features of breast lumps: cyst, fibroadenoma, fibrocystic disease, carcinoma, mastitis, galactocoele. Risk factors for breast cancer. Triple assessment (examination, imaging, tissue sampling).*

Benign and malignant breast disease : *fibroadenoma, cysts, abscess, fat necrosis, carcinoma. Principles of surgical approach to localized breast cancer.*

Thyroid nodules and thyroid cancer: *Differential diagnosis including benign adenoma, multinodular goiter, cyst and carcinoma. Investigation of thyroid nodules to exclude malignancy.*

## Haematology

*Mainly learnt on medical rotations and in Laboratory medicine*

Approach to the patient with anaemia, including investigation of macrocytic, microcytic and normocytic blood counts

Approach to the patient with abnormal bleeding or bruising

Approach to the patient with a raised red cell or white cell count

Approach to the patient with splenomegaly

Approach to the patient with lymphadenopathy

Iron deficiency anaemia: *haematological features, iron studies, further investigation. Prescription of iron therapy*

Thalassaemia trait: *differential diagnosis of microcytic anaemia*

Sickle cell anaemia: *Complications, management of painful crises and acute chest syndrome*

B12 and folate deficiencies: *Differential diagnosis of macrocytic anaemia, autoantibodies to diagnose B12 deficiency.*

Anaemia of chronic disease: *association with malignancy, renal disease and endocrine disease.*

Haemolytic anaemia: *recognition of immune haemolytic anaemia, hereditary red cell defects*

Myeloma: *Clinical presentations, laboratory diagnosis: protein electrophoresis, skeletal survey, bone marrow findings.*

Myelo-proliferative disorders: *Recognition from blood count, clinical features of polycythaemia rubra vera.*

Chronic lymphocytic leukaemia: *prognosis, features on blood film, complications including haemolytic anaemia*

Thrombophilia: *congenital and acquired factors predisposing to thrombosis.*

Anticoagulation: *Indications for and principles of monitoring of low molecular weight heparin and warfarin, including recognition of important drug interactions*

## Rheumatology

*Mainly learnt in year 5 musculo-skeletal medicine course*

Approach to the patient with acute monoarthritis

Approach to the patient with oligoarthritis

Approach to the patient with polyarthritis

Approach to the patient with low back pain

Rheumatoid arthritis: *ACR diagnostic criteria, articular and extra-articular manifestations, principles of disease-modifying treatment, risks and benefits of NSAID's, adverse effects and monitoring of methotrexate.*

Osteoarthritis: *clinical and radiological features, treatment with analgesics.*

Gout and pseudogout: *diagnosis of joint aspirates, acute treatment with NSAID's, colchicine, corticosteroids. Indications for and use of allopurinol for prevention.*

Septic arthritis: *recognition, infecting organisms, treatment.*

Temporal arteritis and polymyalgia rheumatica: *Diagnostic criteria, complications, treatment with corticosteroids.*

Metabolic bone disease: *Clinical, biochemical and radiological features of osteomalacia.*

*Osteoporosis: diagnostic criteria, use of DEXA scan, lifestyle advice, role of bisphosphonates.*

Sero-negative spondyloarthropathies: *Clinical features of ankylosing spondylitis and psoriatic arthropathy*

Systemic lupus erythematosus: *Clinical features, ACR criteria for diagnosis.*

Low back pain: *Evaluation of history for 'red flags'. Clinical differentiation of prolapsed disc affecting nerve root from mechanical back pain: Straight leg raise test, loss of reflex, localized wasting. Knowledge of specific clinical findings with lesions of roots L3-S1. Principles of conservative therapy, indications for neurosurgical referral.*

## Oncology

*Learnt in both medical and surgical rotations*

Oncological emergencies: spinal cord compression, obstruction of superior vena cava, acute hypercalcaemia: *Clinical features and further investigation*

Principles of cancer management including staging

Principles of chemotherapy and radiotherapy and symptomatic management of their complications

Breast cancer: *primary management, lumpectomy vs mastectomy, principles of adjuvant treatment*

Prostate cancer: *principles of management of metastatic disease*

Lung cancer: *symptoms and signs, radiological findings.*

## Neurology

*Mainly learnt in year 5 rotation in neurology and neurosurgery and in medical rotations*

Approach to the patient with headache

Approach to the patient with falls

Approach to the patient with focal weakness: *differentiation of lesions of the upper and lower motor neurons, neuromuscular junction and muscle*

Epilepsy and blackouts: *Clinical features of epilepsies, including focal and grand mal seizures. Brain abnormalities leading to secondary epilepsy: tumours, infections, infarcts. Differential diagnosis from vasovagal, cardiovascular and metabolic causes of loss of consciousness. Investigation of suspected epilepsy: indications for brain scan, EEG, blood tests. Clinical pharmacology: indications and adverse reactions for carbamazepine, sodium valproate and phenytoin.*

Status epilepticus: *Precipitants: hypoxia, drugs, hypoglycaemia, alcohol, structural lesions. Management: ABC, oxygen, exclude hypoglycaemia. Initial treatment with buccal midazolam or rectal diazepam (community) or intravenous lorazepam (hospital). Phenytoin infusion. Management of refractory episodes with general anaesthetic.*

Headache: *Clinical recognition of medically sinister causes of headache: raised intracranial pressure and brain tumours, meningitis, subarachnoid haemorrhage, temporal arteritis. Investigations: indications for brain scan, lumbar puncture, temporal artery biopsy. Clinical feature of other headaches: tension headache, simple migraine, classical migraine.*

Cranial nerves: examination of all cranial nerves with particular attention to evaluation of Diplopia: Recognition of clinical features of lesions of 3<sup>rd</sup>, 4<sup>th</sup> and 6<sup>th</sup> nerves. Causes of oculomotor palsy: compression by tumour or aneurysm, medical third nerve palsies associated with atherosclerosis and diabetes

Facial nerve: Differentiation of upper and lower motor neuron lesions. Causes for LMN lesions: cerebellopontine angle tumours, Herpes zoster of geniculate ganglion, tumours of parotid gland, Bell's palsy. Indications for referral in patients with 7<sup>th</sup> nerve palsy.

Stroke and cerebrovascular disease: Classification of haemorrhagic and ischaemic stroke. Clinical features including clinical localization. Investigation including carotid imaging, ECG and echocardiograph.

Transient ischaemic attacks: clinical features and investigation. Risk factors and prophylactic therapy. Principles of rehabilitation. Medical therapy after stroke (aspirin, cholesterol reduction, anticoagulation). Indications for carotid endarterectomy.

Multiple sclerosis: Clinical features: optic neuritis, eye movement disorders, spinal cord lesions, brainstem and cerebellum. Diagnostic studies: MRI, visual evoked potentials, lumbar puncture: findings supporting diagnosis.

Movement disorders: Causes and clinical features of Parkinsonian syndrome and Parkinson's disease: bradykinesia, rigidity and tremor. Differential diagnosis of tremor. Clinical pharmacology: indications for and adverse effects of L-DOPA, dopamine agonists, anticholinergics.

Dementia and speech disorders: Diagnosis from history and mental state examination. Clinical features of Alzheimer's disease. Differentiation from multi-infarct dementia/. Investigation for reversible causes: hydrocephalus, thyroid disease, B12 deficiency, viral infection, alcohol. Examination of speech: dysphasias, dysarthria, dysphonia.

Coma: Differential diagnosis: drugs and alcohol, head injury, subarachnoid haemorrhage, stroke, status epilepticus, metabolic, hypoxia, meningitis/encephalitis. Glasgow coma scale. Principles of treatment: Airway/breathing/circulation. Investigation including need for immediate blood glucose measurement and consideration of naloxone.

Respiratory failure and other complications of neuromuscular disease: Recognition of neuromuscular respiratory failure. Guillain Barre syndrome: clinical features: ascending symmetrical paralysis, loss of reflexes, autonomic instability, normal bladder and bowel function. Complications: respiratory muscle weakness, bulbar muscle failure, cardiac arrhythmias, pulmonary embolism. Myasthenia gravis: Clinical features. Diagnosis: auto antibodies, principles of edrophonium test.

## Dermatology

Mainly learnt in year 5 dermatology rotation

Approach to the patient with itching (pruritus)  
Approach to the patient with skin failure (toxic epidermal necrolysis, erythroderma):  
*differential diagnosis, complications, treatment*

Common skin infections (bacterial, viral, fungal, scabies): *clinical features, diagnostic tests, treatment*

Scaly erythematous rashes (psoriasis, eczema, pityriasis rosea): *clinical features, treatment of eczema: emollients and corticosteroids, treatment of psoriasis: tar products, calcipotriol, methotrexate*

Acne vulgaris: *clinical features, treatment with topical/oral antibiotics, benzoyl peroxide, dianeette*

Urticaria: *clinical features, use of antihistamines*

Important skin signs of systemic disease (purpura, nail changes, erythema nodosum)

*Learnt in surgery rotations and the year 5 dermatology rotation*

Approach to the patient with a changing cutaneous lesion (nodule, papule, ulcer)

Malignant melanoma: *clinical features including ABCD rules, risk factors, prognostic indicators*

Basal cell and squamous cell carcinoma: *clinical features, risk factors, prevention of skin cancer and sun damage*

Differential diagnosis and management of leg ulcers: *venous, arterial, neuropathic, vasculitic, neoplastic, infectious, pyoderma gangrenous. Investigation including ABPI. Treatment of venous ulcers by local measures and compression bandaging. Role of surgery in patients with patent deep venous system.*

## Ophthalmology

Examination techniques: Visual acuity (with or without a pinhole), pupil reactions, eye movements, visual fields, examination of the optic disc and fundus.

Approach to the patient with red eye: *recognition of iritis, conjunctivitis, keratitis, acute glaucoma*

Approach to the patient with painless loss of vision, acute and chronic: *retinal detachment, ischaemic neuropathy, optic neuritis, retinal vein thrombosis, embolism, cataract, macular degeneration*

Diabetic retinopathy: *Clinical features of background and proliferative retinopathy and maculopathy.*

Visual field abnormalities: *scotomata, homonymous hemianopia, bitemporal hemianopia, altitudinal defects, tunnel vision*

## Ear, Nose and Throat

Examination techniques: Auroscope, tuning fork tests

Approach to the patient with hearing loss: *conductive and sensori-neural causes, differentiation using tuning fork tests*

Approach to the patient with a hoarse voice

Epistaxis: *causes, management*

Stridor

Ear pain and discharge: *features of otitis media and otitis externa*

Dizziness or vertigo: *Differentiating vertigo from other causes of unsteadiness. Clinical features of vestibular neuronitis, Menieres disease and benign positional vertigo. Hallpike's manoeuvre. Recognition of ataxic gait. Evaluation of cerebellar function and proprioception. Romberg's test. Differential diagnosis of cerebellar lesions: demyelination, stroke, neoplasm, drugs and alcohol, inherited.*

Rhinitis and nasal polyps

Presentation of head and neck cancer

Management of the airway in patients with a tracheostomy

## **Content area 3: Chronic and continuing care**

### **Learning objectives**

- To describe and demonstrate the assessment and management in an outpatient clinic or primary care setting of patients followed up after discharge for the acute and emergency presentations encountered in hospital.
- To describe how to organise and provide care on a continuing basis for conditions listed in the core curriculum

### **Core Topics in chronic and continuing care**

You should be able to describe the continuing care of core conditions listed in content area 2. In particular, you should be able to describe chronic and continuing care in the following areas:

*Mainly learnt in medical and primary care rotations:*

Management of cardiovascular risk including hypertension and hyperlipidaemia

Prevention of complications in patients with diabetes mellitus

Monitoring and education of the patient with asthma

Investigation and treatment of osteoporosis

## **Content area 4: Prevention**

### **Learning objectives**

- To describe the principles of primary, secondary and tertiary prevention
- To describe and demonstrate specific methods of preventive care for core topics.

### **Core topics in prevention**

*Mainly learnt through public health thread teaching through years 4-6*

Screening and early detection with particular reference to breast cancer and hypertension Health benefits of, and techniques for, smoking cessation including simple advice, indications for nicotine replacement therapy and bupropion, resources for referral Principles of dietary counselling for heart disease and diabetes

Adult immunisation with particular reference to asplenic patients

## **Content area 5: Therapeutics**

### **Learning objectives**

Clinical Pharmacology:

- To describe methods for selecting drugs, method of delivery, dosage calculation, consideration of interactions and adverse effects for drugs listed in the core pharmacology curriculum
- To describe management plans for the core conditions in content areas 1, 2 and 3.
- To demonstrate the ability to write a drug chart and document discharge medication in a discharge summary.

Radiotherapy:

- To describe the principles and adverse effects of radiotherapy

Nutrition:

- To assess nutritional status in the hospitalised patient and to describe principles and hazards of enteral and parenteral nutrition.

Fluids:

- To write a fluid chart for a medical or surgical patient.
- To prescribe appropriate intravenous fluids to administer for the conditions outlined in the core curriculum for emergency and acute problems.
- To describe procedures for safe transfusion of blood products.

Physical, occupational and speech therapies

- Describe indications for referral for core conditions listed in content areas 1, 2 and 3

**Clinical pharmacology topics**

You should be able to describe the indications, administration, common adverse reactions and important interactions of the drugs listed in the Oxford student formulary as *Emergency* or *Core*. The student formulary can be found on the Clinical Pharmacology site within Weblearn.

## **Content area 6: Rehabilitation**

### **Learning objectives**

- To describe the role of rehabilitation in recovery after major illness, significant trauma or surgery
- To describe the principles of physical, social and psychological rehabilitation with specific reference to core topics
- To describe the role of other health professionals in rehabilitation for the core topics.

### **Core topics**

*Mainly learnt in medicine and geratology rotations:*

Myocardial infarction  
Stroke

*Mainly learnt in musculo-skeletal medicine rotation*

Rheumatoid arthritis

## **Content area 7: Palliative care**

### **Learning objectives**

- To demonstrate prescription of pain control for patients with pain associated with terminal illness
- To demonstrate prescription of palliative treatment for other terminal symptoms including dyspnoea, nausea and constipation
- To describe and demonstrate communication strategies for breaking bad news

### **Core topics in palliative care**

*Mainly taught in palliative medicine and in medical and surgical rotations*

Chronic pain: *WHO pain ladder, prescription of opiate analgesia including conversion from oral to subcutaneous dosing, bone pain*

Nausea and vomiting: *diagnosis of cause and treatment by cause: Haloperidol or metoclopramide for opiate induced, Prokinetic for gastric stasis; metoclopramide/domperidone, dexamethasone for raised intracranial pressure, cyclizine and mechanical approaches*

Constipation: *Choice and prescription of bulk (fybogel), stimulant (senna), osmotic (lactulose) laxatives and faecal softeners (docusate).*

Talking about bad news

Psychological and social support of the dying patient and family

## **Content area 8: Procedures and investigations**

### **Learning objectives**

- To demonstrate competence in conducting the common practical procedures performed by the FY1 doctor.
- To describe to a patient specified procedures including indications, risks and expected discomfort.
- To demonstrate interpretation of common laboratory and radiological investigations ordered by the FY1 doctor.

### Core practical procedures

Based on recommendations from the General Medical Council and feedback from graduates, the following skills are designated as essential competencies for all medical graduates. From 2012, there will be a dedicated assessment of Practical Skills in the final year of the course. The ability to perform these skills will not be tested in the 2<sup>nd</sup> BM examination in February, 2012, but knowledge of the procedures may be tested in written papers. Some of these skills are assessed at different points in the course, for example, in the year 4 OSCE and/or the year 6 Practical Skills' Assessment. The table below indicates where these skills are assessed in the course, and which ones will be sampled in the year 6 Practical Skills' Assessment.

Hand washing	All clinical examinations
Infection control in relation to procedures, including use of personal protective equipment	All clinical examinations
Safe disposal of clinical waste, needles and sharps	All clinical examinations
Giving information about the procedure, obtaining and recording consent, and ensuring appropriate aftercare	All clinical examinations
Measuring body temperature	Year 4 OSCE
Measuring pulse rate and blood pressure using manual and automated techniques	Year 4 OSCE and Year 6 Practical Skills Assessment
Transcutaneous monitoring of oxygen saturation	Year 6 Practical Skills Assessment
Venepuncture	Year 6 Practical Skills Assessment
Inserting a cannula into a peripheral vein	Year 4 OSCE and Year 6 Practical Skills Assessment
Setting up an intravenous infusion	Year 6 Practical Skills Assessment
Taking an arterial blood gas sample, including technique for intradermal local anaesthetic	Year 4 OSCE and Year 6 Practical Skills Assessment
Management of blood samples	Year 4 OSCE
Taking blood cultures	Year 6 Practical Skills Assessment
Blood transfusion	Year 6 Practical Skills Assessment
Measuring blood glucose	Year 4 OSCE and Year 6 Practical Skills Assessment
Performing a 12-lead electrocardiograph	Year 4 OSCE
Spirometry and peak flow measurement	Year 6 Practical Skills Assessment
Instructing patients in the use of devices for inhaled medication	Year 5 primary care examination
Nebuliser use	Year 6 Practical Skills Assessment

Urinalysis using multistix	Year 4 OSCE
Advising patients on how to collect a mid- stream urine specimen	Year 4 OSCE
Taking nose, throat and skin swabs	Year 5 dermatology logbooks
Administering oxygen in appropriate concentrations via a face mask or nasal prongs	Year 6 Practical Skills Assessment
Airway care including use of guedel airway	Year 6 Practical Skills Assessment
Establishing peripheral intravenous access and setting up an infusion	Year 6 Practical Skills Assessment
Subcutaneous and intramuscular injections	Year 6 Practical Skills Assessment
Male and female urinary catheterisation	Year 4 OSCE and Year 6 Practical Skills Assessment
Naso-gastric tube placement	Year 4 OSCE and Year 6 Practical Skills Assessment
Write safe prescriptions for different types of drugs	Year 6 Practical Skills Assessment

### Observed Procedures:

By the time of the 2<sup>nd</sup> BM examination, you should be able to describe to a patient the aims, expected discomforts and possible complications of the procedures listed below. Where possible, you should aim to observe the procedure being carried out at least once.

- Life support systems including mechanical ventilation
- Exercise ECG
- Echocardiogram
- Bone marrow aspiration and trephine
- Chest drain insertion
- Suprapubic catheterisation
- Duplex scanning of carotid artery
- Angiography and Angioplasty (coronary and peripheral)
- Doppler ultrasound of leg for venous thrombosis
- Bronchoscopy
- Aspiration of fluid from pleura or peritoneum
- Total parenteral nutrition
- Stoma-care
- Flexible endoscopy of the upper and lower gastrointestinal tract
- Sigmoidoscopy
- ERCP
- Barium enema and barium meal
- Local procedures for haemorrhoids
- Cystoscopy
- Shock-wave lithotripsy
- Liver biopsy
- Renal biopsy
- Peritoneal dialysis and haemodialysis
- Injection of varicose veins
- Fine needle aspiration for cytology
- Mammography
- Thyroid nuclear medicine scan
- Abdominal ultrasound
- CT and Magnetic resonance imaging
- Autopsy and referral to the Coroner

## **Content area 9: Communication skills**

Please refer to the core curriculum for the communication skills course.

## **Content area 10: referral skills**

### **Learning objectives**

- To make a referral either in writing or by telephone to doctors and other health professionals or agencies.
- To describe the reasons for referral, describe the information that should be included in a referral, and describe the level of urgency.

*Learnt during medical and surgical attachments*

## **Content area 11: Law, ethics and professionalism**

You should have a knowledge of ethics and law relevant to practical situations and dilemmas you may face as a FY1 doctor with specific regard to the Duties of a doctor as defined by the General Medical Council, confidentiality, consent and end of life decisions. This is mainly learnt in year 4 thread courses. The recommended textbook is *Medical Ethics and Law: the core curriculum*. Tony Hope, Julian Savulescu, Judith Hendrick. Published by Churchill Livingstone.

### **Learning objectives**

You should be able to:

- Describe the Duties of a Doctor as defined by the General Medical Council in the document ([http://www.gmc-uk.org/guidance/good\\_medical\\_practice/index.as](http://www.gmc-uk.org/guidance/good_medical_practice/index.as))
- Describe and apply legal and ethical considerations and GMC guidelines relevant to deciding when it is justified to breach medical confidentiality.
- Describe examples of when it is legally required to breach confidentiality.
- Describe and apply common law on consent to treatment for adults and minors, including those who have capacity to consent and those who lack such capacity.
- Describe the concept of valid consent as being informed, competent, and voluntary. Describe how the Mental Health Act relates to common law with regard to giving treatment without a patient's consent.
- Describe the components of legal capacity to consent and how it might be assessed.
- Describe legal considerations and GMC guidelines with regard to withholding and withdrawing treatment including do not attempt resuscitation orders.
- Describe the conceptual distinctions between different types of euthanasia.

- Describe and illustrate the how the distinctions between acts/omissions and intending/foreseeing a result, relate to different views on end of life issues in medicine.