



Lancaster University  
Medical School

# Lancaster Medical School

Year 3  
Learning Objectives  
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## Contents

<b>Introduction</b> .....	<b>5</b>
<b>Elderly Medicine</b> .....	<b>6</b>
Professional Practice of Elderly Medicine .....	6
Ageing .....	7
Disease Process .....	7
Assessment Procedures .....	7
Research Practices in Elderly Medicine .....	7
Acute Confusion .....	8
Dementia.....	8
Anaemia .....	8
Chest Pain.....	8
Diabetic Case .....	8
Febrile Patient .....	8
Heart Failure .....	8
Inflammatory Joint Disease .....	8
Palpitation .....	9
Swollen Legs.....	9
Parkinson's disease .....	9
Renal Failure.....	9
Respiratory Failure .....	9
Cerebrovascular Disease & Stroke .....	9
<b>Radiology</b> .....	<b>9</b>
Anatomy & Function .....	9
Nature of Imaging Investigations .....	9
Radiology Skills .....	10
Radiation Safety .....	10
Nature of Imaging Investigations .....	10
Patient Information & Experience .....	10
Professional Practice (Including referral & reporting) .....	10
Informed Consent.....	11
<b>Neurology</b> .....	<b>11</b>
Headache.....	11
Blackouts / Seizures.....	11
Neurological Weakness & Associated Signs.....	12
Altered Pain & Sensation .....	12
Coma & Brain Death .....	12
Cognitive Mood .....	12
Anatomy .....	13
Raised Intracranial Pressure .....	13
Head Injury.....	13
Meningitis & Encephalitis .....	13
Parkinson's Disease & Movement Disorders .....	14
Investigations .....	14
General .....	14
<b>Community Mental Health</b> .....	<b>14</b>
Common Mental Health Problems.....	14
Patient at Risk.....	15
Depression .....	15
Psychosis.....	16
Substance Misuse .....	16

Eating Disorders.....	16
Anxiety, Phobias & Obsessive Compulsive Disorder .....	16
Cognitive Impairment .....	17
Personality Disorder.....	17
Interface between Psychological & Physical Illness .....	17
Mental Health & Law .....	17
Structure of Mental Health Services .....	18
Professional Resilience .....	18
<b>Managing Long Term Conditions .....</b>	<b>18</b>
Long Term Conditions .....	18
Dermatology .....	20
Diabetes .....	20
Disability (including deaf blind awareness).....	20
Anaemia.....	21
Equality & Diversity .....	22
Primary Care Ear, Nose & Throat.....	22
General Practice Placement.....	23
Ophthalmology .....	23
LGBTQ+ Awareness Workshop .....	23
Trans/Gender Diversity Awareness.....	23
Sustainable Healthcare and Planetary Health .....	24
<b>O&amp;G .....</b>	<b>24</b>
Normal & Abnormal Pregnancy .....	24
Abnormal Foetal Growth .....	25
Multiple Pregnancy.....	25
Pre-Eclampsia.....	25
Vaginal Bleeding in Pregnancy .....	25
Foetal Prematurity.....	25
Normal & Abnormal Labour.....	26
Normal & Abnormal Puerperium .....	26
Unwanted Pregnancy & Termination.....	27
Pre-natal Diagnosis .....	27
Rectal & Vaginal Prolapse.....	27
Pelvic Pain .....	27
Gynaecological Oncology.....	27
Vaginal Discharge .....	28
Abnormal Menstruation .....	28
Menopausal Disorders .....	28
<b>Paediatrics.....</b>	<b>28</b>
Clinical Practice Regulating to Children .....	28
Newborn Infant.....	29
Normal Development.....	29
Safeguarding.....	30
<b>Sexual Health .....</b>	<b>30</b>
Symptoms & Signs of Sexually Transmitted Infections .....	30
Screening & Testing for Sexually Transmitted Infections .....	30
Cervical Screening & HPV .....	30
Contraception.....	31
Abdominal Pain in a Female & Testicular Pain in a Male .....	31
HIV .....	32
LGBT Issues .....	32

Communication Skills for Sexual Health.....	32
Clinical Skills .....	33
Sexual Assault & PEPSE .....	33
Sexual Health & Young People .....	33
<b>Therapeutics.....</b>	<b>33</b>
Adverse Drug Reactions & Drug Interactions.....	33
Common Prescribing Errors .....	34
Important Drug Errors.....	34
Introduction to Prescribing.....	34
Substance Abuse .....	34
Drug Overdose .....	35
Drug Dose Calculations.....	35
Asthma & COPD .....	35
Ward Visits & Pharmacists .....	36
Basic Clinical Bacteriology, Antimicrobial Resistance, Antimicrobial Stewardship & Sepsis .....	36
Common Endocrine Disorders (Not Diabetes) .....	37
Thrombosis .....	37
Cardiac Arrhythmia.....	37
Colitis .....	37
<b>Additional Sessions .....</b>	<b>37</b>
Safety .....	37
Data Analysis Workshop .....	38
Ethical Case Reflection .....	38

## Introduction

The following learning objectives have been compiled to provide you with a transparent list of what you are expected to cover during the third year at Lancaster Medical School. These objectives will be covered in teaching sessions, PBL, bed side teaching or in writing your cases. I would like to remind you that the third year builds on core knowledge from years 1 and 2 and therefore this list is not to be considered in isolation of your previous studies.

I would be very interested to hear how useful you have found this document and any ways in which you think it could be improved for future years.

Enjoy!

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# Elderly Medicine

## Professional Practice of Elderly Medicine

- Maintain a professional approach to the older person.
- Give consideration to various myths and stereotypes related to older people.
- Advocate against ageism and recognise that it can affect the optimal care of older patients.
- Recognise the heterogeneity of older persons and that each person needs to be viewed as an individual.
- Describe the contributions of the following professions allied to medicine: occupational therapy, physiotherapy, nurses, dieticians, speech and language therapists, social workers.
- Explain how these professions can work together effectively as part of a multidisciplinary team.
- Describe the issues surrounding 'polypharmacy' with relation to common drug classes that can affect physiology and thus engender a falls risk.
- Describe the practice of safe prescribing in older adults, taking into account differing physiology, drug interactions and multiple pathologies.
- Explore the problems and solutions, faced by the elderly, relating to adherence.
- Discuss the challenges of rehabilitation for an elderly patient.
- Contrast the provision, content and processes of rehabilitation in hospital and community settings.
- Define the interaction between health and social services in the provision of long-term care for older adults and describe the following services; *NHS continuing care, residential home care, nursing home care, community care at home, community nursing care, community matron service, intermediate care at home, residential intermediate care, interim care.*
- Discuss the tension between minimising risk to the patient and maximising his/her independence when planning discharge.
- Explore the psychological impact of being an inpatient.
- Describe related ethical and legal issues including: advance directives, euthanasia and assisted suicide, safeguarding, withdrawal and withholding of medical treatment, cardiopulmonary resuscitation decisions.
- Discuss the ethical and professional challenges for healthcare professionals with regards to respecting and creating autonomy when caring for elderly patients.
- Define the following specialties and relate their contribution to the care of older adults; continence services, falls services, intermediate care, old age psychiatry, orthogeriatrics, palliative care, stroke medicine.
- Be aware of the issues of elder abuse: physical, psychological and financial.
- Discuss how developing a culture of compassionate care and the 6 Cs could influence dementia care.
- Understand a structured ward round note and understand the need for clear documentation including prescriptions.
- Outline the ethical concept 'relational autonomy'.
- Critique the concept of dignity when caring for elderly patients.
- Discuss the psychological effects of falling and be aware of the need to consider these in consultations.

## Ageing

- Describe biochemical, molecular, cellular, genetic theories of ageing.
- Describe the anatomical and histological changes associated with ageing.
- Describe the pathology associated with normal ageing and age associated disease processes.
- Describe the physiology of ageing.
- Describe the effect of ageing upon pharmacodynamics and pharmacokinetics.
- Describe recent and predicted trends in demography and epidemiology of ageing.
- Describe the interaction between health and social services in the provision of long-term care of older-adults.
- Discuss the population health challenges that an ageing population may create

## Disease Process

- Describe the diagnosis, pathophysiology, management and preventative strategies for depression.
- Describe the causes, diagnosis and management of an elderly patient presenting with urinary incontinence.
- Examine causes of falls in the elderly, particularly problems with balance, gait, mobility, and 'collapse' due to syncope and conditions causing dizziness (e.g. postural hypotension).
- Be able to identify differentiating features in the history and on examination that distinguish falls due to balance problems, syncopal and neurological disorders.
- Describe the diagnosis, pathophysiology, management and preventative strategies for pressure ulcers.
- Describe the causes and investigation of osteoporosis and the drug treatment of osteoporosis.
- Review the epidemiology of age-related conditions, e.g. visual loss, falls.
- Describe the causes, diagnosis and management of an elderly patient presenting with faecal incontinence.

## Assessment Procedures

- Define the components of the International Classification of Function (ICF) and discuss its advantages and disadvantages in comparison to previously used classifications.
- Define Comprehensive Geriatric Assessment (CGA) and list its main domains to incorporate medical, psychological, social, functional and environmental.
- Describe the process of Comprehensive Geriatric Assessment, including initial assessment, establishment of a problem list, management plan, goals and iteration. Describe the role of the multidisciplinary team in this process.
- Understand the initial clinical assessment of an older person coming into hospital.
- To understand the initial clinical assessment of an older person who has had falls and be able to perform a gait assessment.
- Describe the investigations required to identify reasons for an acute fall and recurrent falls.
- Outline the clinical assessment of nutrition including the MUST score.
- Describe how you would investigate an older person with dietary insufficiency and discuss how dietary insufficiency might affect mortality and recovery.

## Research Practices in Elderly Medicine

- Outline the advantages and disadvantages of using a cohort study compared to other study designs.
- Investigate quality-adjusted life year, and years-of-life lost for describing different aspects of morbidity, mortality, and life expectancy in chronic disease.
- Outline the arguments for and against using QALYs as an aid to making resource allocation decisions.

### **Acute Confusion**

- Describe the causes, diagnosis and management of an elderly patient presenting with acute confusional state (delirium).
- Describe the differential diagnosis and defining clinical features for a patient with acute confusion (delirium).
- Be able to take a history from an informant who describes confusion in a patient.
- Describe the diagnosis, pathophysiology, management and preventative strategies for delirium.

### **Dementia**

- Describe the causes, diagnosis and management of an elderly patient presenting with chronic confusional state (dementia).
- Describe the differential diagnosis and defining clinical features for a patient with dementia.
- Reflect on the rights and interests of those with dementia.
- Consider the psychological impact of dementia.

### **Anaemia**

- Describe the diagnosis, pathophysiology, and investigations for anaemia.
- Discuss the drug treatment of iron deficiency anaemia.

### **Chest Pain**

- Describe the differential diagnosis and defining clinical features for a patient with chest pain.

### **Diabetic Case**

- Describe the differential diagnosis and defining clinical features for a patient with diabetes.

### **Febrile Patient**

- Describe the differential diagnosis and defining clinical features for a patient with sepsis.

### **Heart Failure**

- Describe the differential diagnosis and defining clinical features for a patient with heart failure.
- Describe how you would investigate an older person with heart failure and discuss treatment both pharmacological and non-pharmacological.
- Explain the differences and special problems encountered when prescribing drugs or appliances for an elderly patient.

### **Inflammatory Joint Disease**

- Describe the differential diagnosis and defining clinical features for a patient with painful joints.



## **Palpitation**

- Describe the differential diagnosis and defining clinical features for a patient with palpitations.

## **Swollen Legs**

- Describe the differential diagnosis and defining clinical features for a patient with swelling in either a single or both legs.
- Describe the causes, diagnosis and management of an elderly patient presenting with chronic oedema.

## **Parkinson's disease**

- Describe the differential diagnosis and defining clinical features for a patient with parkinsonism.
- Describe the diagnosis, pathophysiology, management and preventative strategies for parkinsonism and movement disorders.

## **Renal Failure**

- Describe the differential diagnosis and defining clinical features for a patient with renal failure.

## **Respiratory Failure**

- Describe the differential diagnosis and defining clinical features for a patient with respiratory failure.
- Describe the causes, diagnosis and management of an elderly patient presenting with acute breathlessness.

## **Cerebrovascular Disease & Stroke**

- Describe the differential diagnosis and defining clinical features for a patient with a stroke.
- Describe the diagnosis, pathophysiology, management and preventative strategies for cerebrovascular disease and stroke.

## **Radiology**

### **Anatomy & Function**

- Understand and recognise conventional orientation of imaging studies Recognition of normal structures as they appear on imaging – specifically to recognise anatomical landmarks on Chest, Abdominal and skeletal X rays. (e.g. fissures, lobes and the mediastinum on CXR)
- Apply knowledge of normal function processes to imaging investigations including excretion of contrast.
- Be able to relate radiological reports to structures on images.

### **Nature of Imaging Investigations**

- Understand and be able to explain differences between imaging modalities and evaluate the strengths and weaknesses of each.
- Be able to describe the different densities on X ray and their significance.
- Describe the role of multi-modality imaging in the investigation of common clinical conditions (including common emergencies) and justify the choice of imaging modality.

- Explore the indications and preparatory requirements for imaging studies, how frequently requested studies are conducted, their effects on the patient, and follow-up (care where required).
- Be able to refer patients for investigations effectively and appropriately
- Be able to understand limitations of imaging techniques.
- Understand impact of investigations on patients in practical, social and emotional terms.

### **Radiology Skills**

- Be able to interpret basic imaging studies systematically, particularly interpreting chest, abdominal and skeletal x rays.
- Be able to recognise and describe common pathologies on chest radiograph (CXR): Misplaced nasogastric tube, Misplaced endotracheal (E-T) tube, Misplaced central venous catheter, Simple/tension pneumothorax, Pleural effusion, Lung/lobar collapse, Lung consolidation, Heart failure, Pneumoperitoneum (on erect CXR).
- Be able to recognise and describe common pathologies on abdominal radiograph (AXR): Small bowel obstruction, Large bowel obstruction, Toxic megacolon, Pneumoperitoneum, Foreign body, Common causes of normal and abnormal calcification.
- Be able to recognise and describe common pathologies on skeletal radiograph: Describe fractures including the type and position within a bone and understand the requirements for different views. (fractures including interpretation of x rays of Pelvis, Femoral neck, Wrist/carpus/scaphoid, Long bones, Fractures involving joint/epiphyseal plate and also Joint dislocations).

### **Radiation Safety**

- Understand national law governing radiation protection.
- Explore known and unknown risks of MRI.
- Discuss risks of interventional procedures.
- Describe potential risks of contrast media.
- Demonstrate an ability to refer patients for imaging procedures safely.
- Understand the doctor's role in limiting risk to the patient.

### **Nature of Imaging Investigations**

- Understand and be able to explain differences between imaging modalities and evaluate the strengths and weaknesses of each.

### **Patient Information & Experience**

- Explore what an imaging investigation entails from the point of view of the patient.
- Be able to inform patients accurately prior to imaging to enable them to prepare adequately and to limit anxiety.
- Understanding the psychological issues raised by investigation, and by invasion of some investigations.

### **Professional Practice (Including referral & reporting)**

- Develop an awareness of the Radiology Department including an outline of roles of staff groups in radiology.
- Demonstrate an ability to navigate the requirements of radiology departments for accurate referral information.

- Demonstrate an ability to practise effective, timely and appropriate patient referral.
- Understand the importance of communication to effective clinical management.

### **Informed Consent**

- Demonstrate a thorough knowledge of the principles and practice of informed consent in radiology.
- Be able to accurately inform patients regarding imaging procedures and obtain consent where relevant.
- Discuss the importance of patient involvement in consent decisions.

## **Neurology**

### **Headache**

- Be able to diagnose simple common headaches (to include migraine, tension headache and medication overuse headache).
- Be able to diagnose some less common but important headaches (for example: trigeminal neuralgia, cluster headache).
- Describe the characteristic history and clinical features of acute severe headache, as well as variable presentation.
- Recall differential diagnoses of headache.
- Explain the management of headache.
- Recognise and elicit signs of headache including cerebral signs.
- Describe the key investigations needed to exclude or diagnose severe acute headaches.
- Recognise features of headaches that require urgent investigations to prevent death or disability.

### **Blackouts / Seizures**

- Describe and demonstrate how to diagnose blackouts.
- Recognise the importance of obtaining a witnessed history in patients with blackout.
- Differentiate seizures from other causes of loss of consciousness / awareness.
- Be aware of the clinical features that distinguish a focal seizure from a generalised seizure.
- Explain the classification of seizures and epilepsy.
- Describe the mechanisms of action for common drugs used in the management of epilepsy (to include Sodium valproate, carbamazepine, lamotrigine, levetiracetam, oxcarbazepine, ethosuximide, topiramate).
- Describe the non-therapeutic management of epilepsy including the role of epilepsy surgery.
- Describe the management of status epilepticus including importance of liaising with intensive care.
- Explore issues regarding epilepsy in women with regards to pregnancy, breastfeeding, contraception (e.g. choice of drugs for primary generalised seizures vs focal seizures, effects on fetus, interactions of some drugs with OCP).
- Discuss the importance of lifestyle issues (e.g. alcohol, sleep etc. etc.) on the management of epilepsy.
- Distinguish between features of epileptic seizures and other causes of convulsions.
- Be familiar with features commonly associated with non-epileptic attack disorder.

- Explore the management of primary generalised epilepsy and epilepsy with focal seizures with or without secondary generalisation.
- Explore the changes within and between stages of physiological status relating to convulsions (compensation and decompensation).
- Describe the mechanisms of action for common drugs used in the management of status epilepticus (to include lorazepam IV / IM; diazepam IV / PR; phenytoin; phenobarbitone IV; thiopentone; propofol).
- Explore the ethical and legal debates surrounding absolute and relative confidentiality when treating patients with epilepsy.
- Identify the historical examples of abuse of research participants.

### **Neurological Weakness & Associated Signs**

- Be familiar with common patterns of neurological weakness.
- Demonstrate how to detect neurological weakness.
- Describe the typical clinical features of conditions causing neurological weakness (including myopathies: multiple sclerosis, spinal cord compression, and neuropathies: Myasthenia gravis and Guillain-Barre syndrome).
- Recognise weakness with respect to common mononeuropathies to include median, ulnar, radial, common peroneal and sciatic nerves palsies.
- Distinguish between causes of foot drop on the basis of clinical examination.
- Explain the management of conditions causing neurological weakness (see above).
- Explore causes and management of acute paralysis.
- Be able to elicit typical signs of neuropathy (arflexia).
- Be able to elicit typical signs of spasticity and weakness in UMN conditions such as Multiple Sclerosis.
- Describe how frameworks for causation, such as the Bradford Hill Criteria, can be applied when critically appraising new research evidence on the risk factors for less common neurological syndromes e.g. Guillain-Barre syndrome.

### **Altered Pain & Sensation**

- Explore how to diagnose altered sensation and pain.
- Revise the anatomy, histology and physiology of the spinal cord nerve root, plexus (Brachial and lumbosacral) and peripheral nerve with relation to weakness and pain.

### **Coma & Brain Death**

- Give a working description of normal consciousness.
- Define coma.
- Consider the causes of coma including sudden loss of consciousness.
- Describe the management of coma.
- Explain the importance of history, examination and investigation in the diagnosis of coma, including localising value of pupillary responses in coma/brainstem reflexes.
- Identify factors relevant to the prognosis in coma of various causes.
- Describe and apply the Glasgow Coma Scale.

### **Cognitive Mood**

- Be familiar with the terminology used in functional neurological symptoms.

- Explore the common causes of functional disorders including predisposing, precipitating and perpetuating causes.
- Consider the diagnosis of functional disorders and how a wrong diagnosis is sometimes made.
- Recognise the range of functional symptoms eg paresis, seizures etc and how to distinguish them.
- Describe psychological models of medically unexplained symptoms, and discuss how these may be incorporated into a biopsychosocial perspective.
- Consider the psychological and social impact of living with medically unexplained symptoms; what are the implications for the doctor-patient relationship?

## Anatomy

- Review the general areas of the brain.
- Review and identify the various functional areas of the brain.
- Review the arrangement of white and grey matter within the brain.
- Distinguish between white and grey matter and compare this to the arrangement in the brain.
- Review the motor and sensory pathways.
- Distinguish between pyramidal and extrapyramidal tracts.
- Review and describe the blood supply to the different areas of the brain and spinal cord.
- Discuss the anatomy of the ventricular system in relation to the production, circulation and resorption of CSF.
- Relate the link between the ventricular system and the venous drainage of the CNS.
- Describe the anatomy of the eye, its blood supply and the visual pathway.
- Relate the anatomy of the CNS to motor neuron disease and visual field defects.
- Revise the nervous system paying specific attention to the median ulnar radial musculocutaneous axillary for UL and then femoral sciatic (+distal branches) in LL.
- Describe the anatomy and function of the cranial nerves.
- Revise the anatomy of plexus lesions, nerve root lesions.

## Raised Intracranial Pressure

- Describe brain tumour types and identify factors affecting prognosis.
- Identify presentations of brain tumours.
- Describe the clinical features of raised intracranial pressure.

## Head Injury

- Outline the classification of acute brain injury.
- Describe the pathophysiology of brain injury.
- Discuss the management of acute brain injury.
- Explore the complications from acute brain injury.
- Reflect on patient outcomes following acute brain injury.

## Meningitis & Encephalitis

- Revise the composition of cerebral spinal fluid, methods of analysis and the indicators for CNS infections.
- Define meningitis, encephalitis, myelitis and their hybrid terms (meningoencephalitis, encephalomyelitis).

- Explore the microbial causes, diagnosis and treatment of meningitis.
- Describe the clinical manifestations and management of meningococcal infection.
- Explore the community implications of meningococcal infection and the public health response to this.
- Explore the microbial causes, diagnosis and treatment of encephalitis.
- Explore the causes, diagnosis and management of brain abscess.

### **Parkinson's Disease & Movement Disorders**

- Define tremor types by their common characteristics.
- Be able to elicit typical signs of Parkinsonism -rest tremor, rigidity, bradykinesia. In fact we can consider this for other sections e.g. arflexia in neuropathy, spasticity and weakness in UMN conditions e.g. MS.
- Recall the clinical features of common tremor conditions (especially Parkinson's Disease and ET).
- Describe the pharmacological management of Parkinson's Disease.
- Discuss other causes of Parkinsonism.

### **Investigations**

- Develop a basic understanding of CT and MRI images in relation to the brain and spinal cord.
- Recognise abnormalities on diagnostic images.
- Recognise image orientation on diagnostic images.
- Understand the role and technique for electroencephalogram (EEG).
- Understand the role and technique for electromyogram (EMG), Nerve Conduction Studies (NCS) and Visual Evoked Potential (VEP).
- Be able to perform routine neurological examination (includes gait, limbs, higher mental functions) to detect tremor, weakness and other abnormal neurological signs.
- Be able to perform cranial nerve examination.
- Outline the role of neurosurgery and radiological interventions in neurological conditions (for example mass aneurysm).
- Describe the procedure and technique for performing a lumbar puncture.
- Review indications and contraindications for performing a lumbar puncture.

### **General**

- Compare and contrast the use of survival rate, case-fatality rate, mortality rate for describing the impact of disease and the effects of treatment.

## **Community Mental Health**

### **Common Mental Health Problems**

- Outline the framework for the classifications of mental disorders, explaining the criteria on which it is based. Pay particular attention to:
  - key features of mood disorders
  - key features of emotionally unstable personality disorder.
- Explore the psychiatric sequelae of chronic conditions such as SLE.
- Understand the influence of genetics and gene-environment interactions on the development and course of mental disorders.

- Describe non-pharmacological management of eating disorders, mood disorders, personality disorders.
- Describe the pharmacological management of eating disorders, mood disorders, personality disorders.
- Outline the routine data sources available to illustrate the epidemiology of mental health problems and discuss their applications and limitations.
- Consider psychological theories of the development of mental health problems and their treatment.

### Patient at Risk

- Understand the difference between 'deliberate self-harm' and 'suicidal incident'.
- Understand the principles of risk assessment, identifying risk factors in history and presentation.
- Outline the routine data sources available to illustrate the epidemiology of mental health problems and discuss their applications and limitations.
- Understand the important demographics in the context of risk assessment (age, gender, ethnicity etc).
- Develop an ethical and professional approach to risk assessment in keeping with a doctor's legal obligation to assess risk and consider detention under mental health act.
- Consider the reasons for self-harm, including self-harm as a method of emotional regulation.
- Discuss the potential harm caused by discourses that describe self-harm as "attention-seeking" or "manipulative".
- Describe the initial management of acute behavioural disturbance, including drug options.
- Describe the initial management of deliberate self-harm and suicidal behaviour.
- Understand the major risk domains in terms of concepts, definitions, dimensions and basic epidemiology, and how they vary over time and context.
- Consider whether there are safeguarding issues for any vulnerable individuals for whom the patient has care and responsibility.
- Develop an ability to begin to formulate clinical risk assessments.

### Depression

- Describe the clinical features of depression, including dysthymia and bipolar disorder.
- Formulate the aetiology of a patient's current illness in terms of biological, psychological and social factors.
- Consider the importance of predisposing, precipitating and perpetuating factors in a patient's illness.
- Describe the indications, contra-indications, major interactions, side-effects of, and any monitoring requirements for, the major biological treatments for depression (TCAs, SSRIs, SNRIs, mixed reuptake inhibitors e.g. mirtazapine and awareness of MAOIs. Mood stabilisers (lithium, sodium valproate, carbamazepine, lamotrigine).
- Describe the features of a Community Treatment Order and outline the grounds for recalling a patient to hospital who is under a Community Treatment Order.
- Describe the indications for, and procedure of, electro-convulsive therapy.
- Describe the neuronal circuits implicated in depression and the neurotransmitters involved.

- Discuss the concept of health inequalities in the context of mental health and outline theories and evidence about how social and health inequalities arise (including reference to social causation and social drift)

## Psychosis

- Recognise key features of psychotic disorders.
- Understand the appropriate physical investigations and examinations linked to long term management of mental disorders.
- Discuss how difficulties in carrying out research relate to the strength of evidence that can be obtained for a certain treatment, intervention, or approach.
- Critically reflect on the impact of a psychiatric diagnosis.
- Describe non-pharmacological management of cognitive disorders and psychotic disorders.
- Describe pharmacological management of cognitive disorders and psychotic disorders.

## Substance Misuse

- Recognise the key features of substance misuse disorders and how they can affect family relationships, occupation and mental health.
- Describe the features of dependence and harmful use of drugs and alcohol, including withdrawal states.
- Describe the medication management of benzodiazepine overdose.
- Outline the medication management of acute alcohol withdrawal.
- Describe the non-pharmacological and pharmacological management of substance misuse disorders.
- Describe the brain pathways involved in reward.
- Outline the key features of a case-control study to explore substance misuse as a risk factor for mental illness.
- Explore the different kinds of phenomena that may affect the outcomes of a study e.g. bias, chance, and causation.

## Eating Disorders

- Describe the main features of eating disorders.
- Outline the epidemiology of common are eating disorders (particularly being aware of demographic risk factors - age/gender/ethnicity/social class/personality type).
- Explain the clinical features of eating disorders using ICD-10 diagnostic criteria for anorexia nervosa/bulimia nervosa.
- Develop an awareness of, rather than detailed knowledge, other forms of ED for example pica/orthorexia.
- Recognise the bio-psycho-social framework and increased risk factors (gender/ body conscious hobbies/occupation/anankastic traits etc) relating to eating disorders.
- Describe the management of eating disorders using BPS and NICE guideline 9 to identify core interventions for eating disorders.
- Discuss the prognosis of patients with an eating disorder including an exploration of suicide risks, cardiac problems and high mortality rates.

## Anxiety, Phobias & Obsessive Compulsive Disorder

- Demonstrate an understanding of adjustment disorder and PTSD.



- Describe the indications, contra-indications, major interactions, side-effects of, and monitoring requirements for, the major biological treatments for anxiety, including benzodiazepines, zopiclone and zolpidem.
- Understand the basic elements of the talking therapies: psycho-education, CBT, motivational interviewing etc.
- Show familiarity with more specialised therapies such as family therapy, supportive psychotherapy, psychodynamic psychotherapy and mentalising therapy.

### **Cognitive Impairment**

- Recognise key features of cognitive disorders.
- Explore acute and chronic; dementia, delirium, Wernicke's encephalopathy and Korsakoff's syndrome.
- Recall the physical and mental causes of forgetfulness.
- Describe the indications, contra-indications, major interactions, side-effects and of, and any monitoring requirements for, of cholinesterase inhibitors and other medication used in dementia, and anticholinergics used in the management of extrapyramidal side effects and acute dystonias.
- Describe the structure and care pathway of mental health services for older people and how they are delivered.
- Be aware of the pathophysiology underlying the common dementia syndromes (Alzheimer's disease, vascular dementia, Lewy Body Dementia, Frontotemporal dementia).

### **Personality Disorder**

- Outline key features of personality disorders.
- Recognise that many psychiatric disorders can coexist with personality disorder and substance misuse (dual diagnosis).
- Explore emotionally unstable personality types in relation to mental health.
- Describe the non-pharmacological management of personality disorders.
- Describe the pharmacological management of personality disorders.

### **Interface between Psychological & Physical Illness**

- Explore the psychological sequelae of chronic conditions.
- Understand the difference in screening tools used in primary and secondary care (identification v intervention).
- Describe the psychological factors that influence how individuals manage illness and healthcare-related stress.
- Discuss the management of patients who refuse treatment or wish to discharge themselves from medical care.
- Critically reflect on the concept of mental illness and its definition.

### **Mental Health & Law**

- Revise the concepts and definitions of consent, informed consent and capacity to give informed consent.
- Understand Emergency powers - 5(2), 5(4), 136, Assessment and Treatment powers – 2, 3,4,136,17a (CTO)The legal "test" of capacity (MCA 2005).
- Have a functional understanding of relevant sections of mental health law, what they are for and what can they do.

- Describe the more common situations when mental health law would apply to clinical situations within the mental health field, physical health and general practice.
- Consider the definition of mental disorder according to the Mental Health Act 1983 and Mental Capacity Act 2005.
- Demonstrate an awareness of the potential for conflict with patients and families when using mental health law.
- Consider the ethical justification for depriving the mentally ill of their liberty against their will.
- Discuss how the Mental Health Act is used by healthcare professionals in the community.

### **Structure of Mental Health Services**

- Develop an awareness, rather than an in depth understanding, of the breadth of mental health services both community and acute services to cover the role of the GP, Primary Care mental Health Services, Working Age Adults, Older Adults, Learning Disabilities team, Child and Adolescent Services, Eating Disorders services and Forensic Services.
- Explore how and why mental illness may be considered stigmatising, and discuss how policy and practices in mental health care might exacerbate or alleviate stigma.
- Appreciate the value of other disciplines and professionals within a multidisciplinary service.
- Show respect for differing models and philosophies of mental health outside the medical profession.
- Consider the historical uses and abuses of psychiatry.
- Debate whether paternalism can be justified in mental health care.
- Describe the experiences of mental health problems and of mental health services from service users' perspectives.
- Discuss which locations can be considered an appropriate 'Place of safety' when treating people with mental illness, e.g. police station, A&E department.
- Explore the issues related to designing and carrying out research in the field of mental health.
- Discuss how difficulties in carrying out research relate to the strength of evidence that can be obtained for a certain treatment, intervention, or approach.

### **Professional Resilience**

- Develop an understanding of professional resilience.
- Explore shared ideas of resilience through interprofessional learning.
- Recognise the impact of mental health work on ourselves and the strategies developed individually to cope with mental health work.
- Develop a self-care protocol and new resilience strategies that could potentially be used throughout training / careers.

### **Managing Long Term Conditions**

#### **Long Term Conditions**

- Explore the various drugs which people take for long term conditions, and the impact of polypharmacy on patient's lives.
- Understand the role of the GP in co-ordinating care within an MDT for those with chronic disease and complex multi-morbidity.

- Understand how a GP Learning Disability register works, and the role of the annual review in screening for health problems.
- Understand the role of the GP in being first point of contact for health for vulnerable patient groups e.g. homeless, asylum seekers, and learning disabilities.
- Describe how to communicate to patients how to self-manage chronic conditions e.g. chronic sinusitis.
- Understand the role of subsidised activity programmes for patients with chronic disease, and develop an understanding of social prescribing.
- Develop understanding of the advantages of use of clinical IT systems including electronic note-keeping, coding and recall systems with reference to chronic disease management.
- Review psychological influences on treatment adherence, e.g. mood, illness perceptions, treatment beliefs.
- Understand the social and employment consequences of living with a long term condition, and the financial benefits which are available.
- Consider the emotional dimensions of living with a long term condition, and the psychology of chronic disease.
- Explore the roles of carers.
- Understand the role of national charities in supporting people with a long term condition.
- Understand the structure of primary care, and how care is delivered to people with long term conditions, including the role of MDT.
- Understand the principles of chronic disease management.
- Understand the role of expert patients and support groups for people with long term conditions.
- Explore, through student presentations, common groups of drugs encountered in General Practice, covering pharmacodynamics and pharmacokinetics, modes of action, side effects and interactions.
- Describe how an analysis may be made of the health needs of a population e.g. those are deaf.
- Discuss how economic concepts (e.g. cost, benefit, effectiveness, efficiency, utility) might affect decisions made by commissioners of services about new technology, e.g. cochlear implants.
- Consider why it is important to assess for 'depression' for people with long term conditions.
- Outline the role and responsibilities of a Lasting Power of Attorney.
- Critically evaluate the role and purpose of Advanced Decisions.
- Identify the conditions for an Advanced Decision to be considered valid by a treating doctor.
- Discuss primary, secondary, and tertiary disease prevention in relation to long term conditions such as diabetes, and apply the behaviour change models to lifestyle choices.
- Discuss how work affects health and the strengths and weaknesses of occupational epidemiological studies.
- Consider whether personal responsibility for ill health should be a relevant factor when making resource allocation decisions.
- Debate whether it should be permissible to limit health spending on the elderly.
- Describe the circumstances in which patients need to notify the DVLA regarding their fitness to drive.
- What responsibilities does a doctor have regarding patients whose fitness may be impaired?

## Dermatology

- Revise the structure and function of skin.
- Describe the morphology of rashes and terms used in dermatology.
- Recognise common skin problems and the principles of their management including:  
Common infections and infestations: bacterial (impetigo), virus, fungus and scabies;  
Common inflammatory disorders: eczema, psoriasis and acne vulgaris; Skin cancer ie melanoma, and the non melanocytic skin cancers BCC/ Bowens/SCC.
- Recognise benign lesions and pre cancers (AKs).
- Recognise other common skin problems in primary care including Chickenpox, macular/ viral rashes, and erythema multiforme, urticarial.
- Recognise the skin signs of meningococcal disease – petechiae, purpura, non-blanching rash.
- Understand the principles of emergency management of meningococcal septicaemia – Recognition, IM Benzyl penicillin, Emergency admission for IV antibiotics.
- Take a focussed dermatology history and examination for common skin conditions seen in primary care.
- Cover the descriptive terminology of common dermatological conditions, and the impact of skin disease on patient’s lives, and relate this to the anatomy and physiology of the skin.

## Diabetes

- Revise the normal physiology of the pancreas, and the mechanism of insulin release and glycaemic control.
- Explore the causes, presentation, diagnosis, and management of diabetes mellitus, Type 1 and Type 2.
- Understand the chronic micro-vascular complications of diabetes mellitus, including diabetic nephropathy, diabetic retinopathy, diabetic neuropathy, diabetic ulcers.
- Understand the chronic macro-vascular complications of diabetes mellitus, especially related to the cerebral, cardiac and peripheral vascular system.
- Understand the mechanism of acute diabetic complications, such as diabetic ketoacidosis (DKA), hyperosmolar non-ketotic diabetic state (HONK), and hypoglycaemia, and their management.
- Describe the principles of chronic disease management, and apply these to diabetes care.
- Discuss economic, social and individual factors affecting management of a diabetic regimen.

## Disability (including deaf blind awareness)

- Define 'learning disability'.
- Describe and understand the main classification of causes of learning disability.
- Describe the features of some of the common causes of learning disability, focussing especially on Autism, Asperger’s Syndrome, Downs Syndrome.
- Describe the diagnosis and management and support of children and adults with Learning Disability, and explore the role of the multi-disciplinary team (MDT).
- Taking the MenCap ‘Death by Indifference’ report as an example, explore the role of voluntary organisations/pressure groups in shaping medical practices.
- Explore, through case presentations, the various types of long term conditions which cause both physical disability and communication difficulty.
- Explore the impact for patients of living with a long term condition, which cause disability.

- Develop skills in communication with people with Learning Disability and communication difficulty.
- Through various disability workshops (learning disability, deaf and blind awareness) explore patients' experience of living with these disabilities and navigating the health system.
- Define 'decision-making capacity' with reference to the Mental Capacity Act.
- Consider the barriers to social inclusion faced by those with a sensory impairment (education, employment, environmental etc).
- Consider the differences of self-perception of those that have a congenital disability and those that acquire a disability.
- Review routine data sources (healthcare and other) that describe specific types of disability, e.g. deafness.
- Discuss the challenges for healthcare professionals when maintaining confidentiality during consultations where interpreters are required.
- Explore how vulnerable populations may experience health inequalities e.g. people with learning disabilities.
- Apply Maxwell's dimensions of quality to routine health care provision for people with learning disabilities.
- Critically discuss the concepts of dependence and independence in relation to learning disabilities, and discuss how they are shaped by ideas about normality.
- Taking the topic of sexual activities as an example, debate the concept of stereotyping and its consequences as it applies to those with learning disabilities.
- Consider the experience of medical services from the perspective of people diagnosed with a learning disability.
- Explore the ethical, legal, and professional challenges for healthcare professionals when making decisions for patients who lack capacity, who are, or might become, sexually active.
- Outline the role and responsibilities of the Independent Mental Capacity Advocate and discuss the other types of Advocacy.
- Explore high profile cases of institutional discrimination of people with learning disabilities and discuss activism surrounding avoidable or premature death, for example #justiceforLB.

## Anaemia

- Describe the signs and symptoms of anaemia.
- Learn to interpret Full Blood Count pathology results, and the various other blood tests which are required to diagnose the cause of anaemia.
- Describe other investigations used in diagnosing anaemia.
- Investigate causes of anaemia.
- Explain the management of patients with anaemia.
- Explore anaemia, its definition, pathophysiology, causes and diagnosis, especially in relation to iron deficiency anaemia, B12 and folate deficiency anaemia, anaemia of chronic disease.
- Describe the common cause of tiredness/lethargy in GP (e.g. Anaemia, hypothyroidism, depression, malignancy, cardiac, lifestyle factors) and understand how to approach the patient in a holistic manner, taking a relevant history and using appropriate examinations and investigations to make a diagnosis.

## Equality & Diversity

- Understand the principles of the Equality Act and relate this to various scenarios involving patient care, employment obligations, and work relationships.
- Understand the issues of Equality and Diversity and how this relates to clinical practice.
- Relate EDI to health inequalities, and discuss ways in which health care can be improved to meet the needs of vulnerable groups.
- Understand the social determinants of health, and how these can influence health inequalities.
- Explore different definitions and experiences of culture: personal, patients' and public's culture, and discuss how these relate to clinical practice, and can affect patient-doctor encounters.
- Explore the students' and doctor's role in promoting equality in all settings, and relate this to GMC Duties of a Doctor.
- Explore the specific health needs of asylum seekers and how these can be addressed.
- Define direct and indirect discrimination, harassment and victimisation as referred to in the Equality Act.
- Understand how the Equality Act refers to the Protected Characteristics, and how this applies to clinical practice.

## Primary Care Ear, Nose & Throat

- Revisit anatomy and physiology of the ear related to impairment.
- Be able to describe the structure and function of the ear, from external auditory meatus to the middle ear, including the vestibulocochlear system. Recognise landmarks including the tympanic membrane, malleus, incus and stapes. Describe the semi-circular canals and cochlea.
- Describe the structure and function of the tympanic membrane. Recognise important landmarks such as the pars tensa, pars flaccida, light reflex and umbo.
- Recognise common pathology of the ear and tympanic membrane including otitis media, otitis externa, foreign bodies, impacted wax and glue ear.
- Recognise grommets and understand their function and effectiveness in treatment of glue-ear.
- Be competent at ear examination, using an otoscope to identify the normal tympanic membrane.
- Recognise nasal polyps and understand their treatment both medically and surgically.
- Understand the causes and symptoms of post nasal drip. Be able to describe common treatments.
- Develop an understanding of community ENT clinics and their place within the healthcare system.
- Explore the differential diagnosis of hearing loss, e.g. temporary/permanent, conductive/sensorineural, especially related to common conditions such as presbycusis, otitis externa, otitis media, glue ear, wax, and their presentation/management.
- Explore investigations for hearing loss, different types of hearing tests, including Rinne's and Webers.
- Understand the mechanisms of hearing aids.
- Explore the anatomy and physiology of the vestibular apparatus, and how its dysfunction causes vertigo.

## Peripheral Vascular Disease and Leg ulcers

- Define the term ulcer
- Describe the clinical features of the main types of ulcer (arterial, venous, neuropathic, pressure) and their pathophysiology.
- Understand how to carry out a peripheral vascular examination on the lower limbs and understand the common signs and symptoms of peripheral vascular disease.
- Explain the principles of the treatment of leg ulcers in primary care.
- Describe the investigations used in peripheral vascular disease, and the role of the Ankle-Brachial pressure index, from the primary care perspective.

## General Practice Placement

- Develop increased clinical knowledge, history taking, physical examination, differential diagnosis and management of acute and chronic conditions in a General Practice setting.
- Apply evidence and guidelines in clinical decision-making.
- Develop clinical and procedural skills relevant to a General Practice setting.
- Develop an awareness of holistic care, and the biopsychosocial model of illness.
- Develop an understanding of the therapeutic doctor patient relationship in primary care, and the importance of continuity, especially in relation to long term conditions.
- Develop experience of seeing patients in different settings: practice, home, clinics, online, telephone consulting.

## Ophthalmology

- Revisit anatomy and physiology of the eye related to impairment, including the visual pathway, and relate this to eye examination.
- Explore the different causes, presentation and management of slowly progressing visual impairment, especially cataract, glaucoma, age-related macular degeneration, diabetic and hypertensive retinopathy
- Understand the main causes of both transient and persistent acute loss of vision.
- Explain the pharmacology of drugs used in glaucoma and macular degeneration.

## LGBTQ+ Awareness Workshop

- Develop an understanding of the health inequalities and associated risks experienced by LGBTQ+ people.
- Understand how to reduce the barriers which LGBTQ+ people experience when accessing healthcare.
- Develop familiarity with best practice guidelines for working with LGBTQ+ patients.
- Understand LGBTQ+ employment rights, as well as increase awareness of issues faced by LGBTQ+ colleagues.

## Trans/Gender Diversity Awareness

- Develop an understanding of the terms trans and transgender, and the diverse ways this can be experienced.
- Develop an understanding of the health inequalities experienced by transgender people.
- Understand terminology, gender diversity and use of inclusive language.
- Develop an understanding of the different aspects of transition, both medical and social.
- Appreciate the barriers to healthcare experienced by transgender people, and how these can be broken down individually and collectively.

## Sustainable Healthcare and Planetary Health

- Describe how the environment and human health interact at different levels.
- Outline the dependence of human health on global and local ecological systems, which supply essentials such as air, water and a stable climate.
- Discuss the contribution of human activity and population size to global environmental changes such as climate change, biodiversity loss and resource depletion.
- Describe the mechanisms by which human health is affected by environmental change, for example through changes in disease vectors, exposure to extreme weather, migration and reduced food security.
- Describe features of a health-promoting local environment, in community and healthcare settings, to include access to green spaces, clean air and an active travel infrastructure.
- Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
- Define the concept of environmental sustainability.
- Explain how trends in demographics, technology, climate and resource availability may affect our ability to provide healthcare into the future.
- Describe, with examples, the different types of environmental impact resulting from healthcare provision, and how these may be measured.
- Identify ways to improve the environmental sustainability of health systems - in individual practice, in health service management, and in the design of care systems.
- Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- Explain how the health impacts of environmental change are distributed unequally within and between populations and the disparity between those most responsible and those most affected by change.
- Recognise and articulate personal values concerning environmental sustainability, given the relationship between the environment and the health of current and future generations.
- Discuss ethical tensions between allocating resources to individual patients and protecting the environment upon which the health of the wider community depends.
- Demonstrate awareness of organisational sustainability policies and the legal frameworks for reducing carbon emissions.

## O&G

### Normal & Abnormal Pregnancy

- Assess current principles/practice of safe prescribing in pregnancy.
- Take & present an obstetric history, exam the pregnant abdomen, auscultate the fetal heart, measure BP in pregnancy and perform & interpret urinalysis.
- To understand and demonstrate appropriate knowledge, skills and attitudes in relation to antenatal care in the low-risk pregnancy.
- Discuss the screening criteria in relation to routine antenatal care.
- Demonstrate an understanding of the determination, risks and monitoring of high-risk pregnancies.
- Understand common problems e.g. hyperemesis gravidarum, pelvic/abdominal pain in early pregnancy.
- List the implications of postmature pregnancy and the induction process.



- Describe methods of monitoring fetal well-being.
- Perform an obstetric palpation.
- Demonstrate an understanding of the prevention and management of rhesus haemolytic disease and the use of Anti-D.
- Review the definition and interpretation of epidemiological measures of fertility (including crude birth rate, general fertility rate, age specific fertility rate, and total period fertility rate).
- Explore UK and international trends in family size, spacing, and constitution, explore the potential impact on future population size and structure.
- Review how to diagnose pregnancy; consider signs, symptoms and uterine size at different gestation.
- Revise the principles of rhesus haemolytic disease and outline management and the use of Anti-D.

### **Abnormal Foetal Growth**

- Describe the factors that are involved in abnormal fetal growth and development, explaining their mechanisms.
- Take and present an history from a patient with suspected abnormal fetal growth.
- Measure and document fetal growth on the customised growth chart.

### **Multiple Pregnancy**

- Demonstrate an understanding of the risk factors and management of multiple pregnancies.
- Describe the mechanisms of twinning and the types of placental involvement.
- Explain the labour options for multiple pregnancy and mode of delivery.
- Use routine data to describe population trends in multiple pregnancy.

### **Pre-Eclampsia**

- Describe the classifications of hypertensive disorders of pregnancy.
- Formulate a management plan for women suffering from pre-eclampsia including the use of anti-hypertensives.
- Demonstrate an understanding of severe pre-eclampsia and eclampsia including the use of anti-hypertensives and magnesium sulphate.
- Discuss timing and mode of delivery for women suffering from severe pre-eclampsia and eclampsia.
- Take and present a history from a woman with suspected hypertensive disease.

### **Vaginal Bleeding in Pregnancy**

- Describe the aetiology, risk factors and possible causes for bleeding in pregnancy.
- Describe the management of antepartum haemorrhage.
- Classify miscarriage and explain the significance of ectopic pregnancy and molar pregnancy.
- Take and present an history from women with pregnancy bleeding.

### **Foetal Prematurity**

- Discuss the diagnosis, clinical assessment and management of suspected pre-term labour and the implications for the neonate.
- Demonstrate and understand, appropriate knowledge, skills and attitudes in relation to ethics and legal issues in preterm labour.

- Describe the appropriate modes of delivery available in the management of pre-term Labour.
- Distinguish the difference between preterm/prelabour rupture of membranes and their management plans.
- Outline the Cochrane approach to reviewing evidence for evidence-based health care.
- Critically discuss the impact of Cochrane reviews on clinical medicine and public health.

### **Normal & Abnormal Labour**

- Describe the mechanisms of normal labour and delivery.
- Compare monitoring methods of maternal and fetal wellbeing during labour including participation in partogram.
- Demonstrate an understanding of the normal stages of labour and their management.
- Describe the anatomy of the female pelvis in relation to the fetal skull and its implications for delivery.
- Describe methods available for pain management in labour, their benefits and risks.
- Understand the significance of episiotomy, perineal trauma and their long-term consequences.
- Demonstrate an understanding of the aetiology, risk factor affecting labour and delivery, including intrapartum haemorrhage, shoulder dystocia and trauma.
- Describe methods of induction and augmentation of labour.
- Demonstrate the skills required in the immediate resuscitation of the collapsed obstetric patient.
- Compare modes of instrumental delivery and their indications.
- Observe and demonstrate an understanding of the indications and complications of both elective and emergency caesarean section.
- Outline the anatomical modifications involved in female genital mutilation and how it can affect examination and clinical management of labour.
- Debate the challenges for healthcare professionals when attempting to respect individual and cultural rights.
- Outline the main local and global causes of maternal and child mortality and their frequency.
- Discuss the bearing of ethnicity on childbirth and labour.
- Discuss the social and psychological dimensions of pregnancy and labour.
- Explore whether there is a moral difference between FGC and male non-therapeutic circumcision.
- Define cultural relativism and cultural imperialism.

### **Normal & Abnormal Puerperium**

- Demonstrate an understanding of the normal postpartum period for women and the newborn.
- Undertake care of the women and newborn in the early puerperium.
- Describe the importance of breastfeeding.
- Be aware of the key issues in the management of perineal care.
- Describe the common abnormalities of the postpartum period.
- Describe the techniques for prevention and management of postpartum haemorrhage.
- Identify and discuss postpartum sepsis.
- Demonstrate an understanding of the common psychiatric illness and its management.

## Unwanted Pregnancy & Termination

- Develop an understanding of history taking skills relating to unwanted pregnancy.
- Understand the options available for an unwanted pregnancy, including Termination of Pregnancy (TOP) – indications, difference between medical/surgical methods (including complications) and when these methods are appropriate in terms of gestation.
- Be aware of the sexual healthcare needs of vulnerable groups, e.g. the young, commercial sex workers and drug abusers.
- Demonstrate an understanding of the Abortion Act and the relative legal status of the fetus and the mother, in addition to the rights of the father in decision making.
- Quantify the impact of legalised abortion on birth rates in the UK since the Abortion Act of 1967.

## Pre-natal Diagnosis

- Demonstrate an understanding or pre-conceptual counselling of women with pre-existing illness.
- Discuss pre-conceptual care and the use of lifestyle changes, folic acid and nutritional requirements to positively influence pregnancy.

## Rectal & Vaginal Prolapse

- To understand and demonstrate appropriate knowledge skills and attitudes in relation to incontinence and prolapse.
- Demonstrate an understanding of the clinical features associated with disorders of urinary tract and pelvic floor, including utero-vaginal prolapse, detrusor over activity, urodynamic stress incontinence and urinary tract infection.
- Be aware and able to explain investigations and treatment of urinary incontinence and genitourinary prolapse, including bladder retraining, pelvic floor exercises, pads, catheterisation etc., medical and surgical therapies.

## Pelvic Pain

- Describe the regional anatomy and histology relevant to the female pelvis.
- Take and present a history from a patient with pelvic pain.
- Describe common gynaecological problems causing pelvic pain including, endometriosis, adhesions, pain from uncertain origin.
- Appreciate the range of cases seen at gynaecology outpatient / theatre and explore management options for a range of patients.
- Outline the legal and professional obligations for medical students and healthcare professionals when conducting intimate examinations.

## Gynaecological Oncology

- Explain the significance of cervical smear testing programme and the result.
- Demonstrate an understanding of the epidemiology, aetiology, diagnosis and prognosis of gynaecological cancer.
- Develop an understanding of the principles of cervical screening.
- Explore routes of diagnosis for common gynaecological cancers.
- Discuss the management of gynaecological cancer.

## Vaginal Discharge

- Demonstrate an understanding of vaginal discharge, physiological vs pathological presentation.
- Perform a speculum examination on a manikin to obtain a high vaginal swab.
- Have an understanding of the professional skills and attitude needed when conducting an intimate examination, whilst keeping within professional guidelines.
- Demonstrate an understanding of the relevant investigations and management for vaginal discharge.
- Distinguish physiological from pathological causes of vaginal discharge.

## Abnormal Menstruation

- Review the physiology of the menstrual cycle.
- Review causes of abnormal bleeding (including cervical cancer) their symptoms and management.
- Define the place of surgery in the management of:
  - abnormal uterine bleeding
  - lower abdominal pain
- Take a Gynaecological history from a patient with abnormal vaginal bleeding.
- Attend a hysteroscopy clinic.

## Menopausal Disorders

- Describe the significance of benign gynaecological problems and their management in relation to the menopause.
- Abnormal bleeding/postmenopausal bleeding.
- Explain the pathophysiology of menorrhagia and discuss the principles of management.
- Outline the key features of a case-control study to look at menorrhagia.
- Apply the 'iceberg of disease' model to clinical conditions such as menorrhagia.
- Critically discuss the concept of medicalisation in relation to menorrhagia.

## Paediatrics

### Clinical Practice Regulating to Children

- Understand why children are different, in terms of approach to history taking, examination, anatomical differences, and medical management.
- Show competence in taking an accurate paediatric history, which considers the child's age, stage of development, family and social factors.
- Understand the principles behind physical examination of children, with an awareness of the clinical context, age, developmental stage, and comfort of the child.
- Gain an awareness of the differences and difficulties of communicating with parents and children of different ages, and considers strategies that might be useful.
- Compare and critique the legal and ethical aspects of the capacity of young people to consent to and refuse treatment.
- Discuss the ethical and professional challenges for healthcare professionals with regards to respecting and creating autonomy when caring for children.

## Newborn Infant

- Be able to perform a newborn 'baby check' including screening for developmental dysplasia of the hip.
- Understands the basis of the newborn blood spot screening tests, the conditions tested, and health impact of positive tests.

## Normal Development

- Demonstrate knowledge of how growth and puberty are assessed.
- Describe the causes, assessment, management and consequences of delayed and early puberty.
- Outline the causes and assessment of short stature in males and females.
- Describe the specific nutritional requirements of children.
- Identify the common psychological problems seen during adolescence.
- Be aware of the impact of childhood accidents and measures taken to help prevent them.
- Be aware of the common genetic conditions, modes of inheritance and clinical presentations.
- Understands the current UK immunisation schedule and the immunological basis for vaccination.
- Understands normal infant and childhood growth and nutritional requirements.
- Be able to assess growth by measuring children and plotting on growth charts. (weight, height, head circumference).
- Understands the relationship between parents' heights and a child's height, looking at adult height predictors.
- Demonstrate an understanding of how the UK growth charts for height and weight could be explained to parents.
- Understanding of common early childhood problems, colic, vomiting, feeding difficulties, sleeping problems, temper tantrums.
- Demonstrate an understanding of failure to thrive and its causes, common growth disturbances, and how growth is assessed.
- Be aware of the ages at which developmental skills in the four main areas should be gained, and is confident in targeting the paediatric history to assess development.
- Provide an overview of pubertal development in males and females demonstrating an understanding of the hormonal basis of puberty.
- Demonstrate knowledge of how growth and puberty are assessed.
- Demonstrate an understanding of typical psychological development of children and adolescents.
- Critically discuss the idea of 'normal' and its place as a standard from which to measure 'deviation' in medical practice.
- Explore the ethical dimensions of using growth hormones for the treatment of 'small' children.
- Demonstrates an approach (differential diagnosis, appropriate investigation and management) to the following common paediatric clinic presentations:
  - Abdominal pain
  - Recurrent wheeze
  - Vomiting
  - Headaches

- Collapse. Cause
- Recurrent infections

## Safeguarding

- Have an understanding of the issues surrounding child protection, types of child abuse, and what to do if they have concerns.
- How is the risk of suicide potential assessed in adolescents?

## Sexual Health

### Symptoms & Signs of Sexually Transmitted Infections

- Understand the basic epidemiology of STIs and HIV and public health issues for control of spread of infection both locally and globally.
- Be able to describe the risk factors for common STIs.
- Be able to describe the pathogenesis, symptoms & signs of common STIs – Chlamydia, Gonorrhoea, HIV, Syphilis, Non-gonococcal urethritis (NGU), Trichomonas, Herpes, Genital Warts, and Hepatitis A, B & C.
- To begin to understand what information should be gathered within a sexual history.
- Outline the differential diagnosis of genital lumps.

### Screening & Testing for Sexually Transmitted Infections

- Be able to describe which testing sites and samples (including microscopy in sexual health clinics) are appropriate in relation to patient's risk factors and if symptomatic or asymptomatic.
- Be able to give an appropriate explanation of the principles of safer sex and risk reduction.
- Be aware of the national screening programs for cervical screening, chlamydia screening and antenatal HIV screening and what these entail.
- Apply these principles to male and female scenarios and MSM (men who have sex with men).
- Discuss the principles and methods of partner notification.
- Discuss the ethical and legal issues in relation to partner notification, particularly in relation to consent, confidentiality and HIV.
- Discuss the legal and ethical challenges for healthcare professionals relating to confidentiality within sexual health practices.
- Revisit statutory notification of disease and understand how these routinely collected data are used to describe and control communicable disease in the UK.
- Revise infectious disease epidemiology with particular reference to disease dynamics and the reproductive number ( $R_0$ ).
- Review the sex and age specific incidence of common sexually transmitted diseases by era in the UK and worldwide now.

### Cervical Screening & HPV

- Explore the risks of 'HPV' and how these relate to the HPV vaccination programme.
- Review the clinical delivery of cervical screening, national Chlamydia screening, and HPV vaccination.

- Compare and contrast population screening (e.g. cervical screening) with various types of 'case-finding' (e.g. contact tracing and opportunistic testing for STIs).
- Understand the concepts of validity and reliability as applied to diagnostic tests and be able to quantify them.

## Contraception

- Be able to obtain a contraceptive and reproductive history to assess contraceptive need and discuss contraceptive choices to enable patients to make informed decisions.
- Demonstrate a basic understanding of the currently available contraceptive methods in the UK: their mechanisms of action, failure rates, benefits, risks and the medical contraindications.
- Understand the situations in which the different contraceptive methods may fail and be able to apply this in routine practice to prevent iatrogenic failure.
- Understand how to manage a patient presenting with a medical condition that might contraindicate the method they are using, and when referral to a specialist service would be appropriate.
- Be able to describe which groups of medicines may interact, and how, with certain contraceptive methods and how this influences contraceptive choice.
- Be able to describe to a patient the different methods of emergency contraception, their mechanisms of action, indications and guidance for use.
- Consider ethical issues, and cultural and religious influences on choice of contraception or use of emergency contraception.
- Apply prior knowledge of contraceptive methods to different scenarios to understand factors influencing a woman's choice of contraception, including contraindications and patient ICEs (ideas, concerns, expectations).
- Apply prior knowledge of different options for emergency contraception to scenarios to demonstrate understanding of the pros and cons of these options.
- Understand the role of the Healthcare professional (HCP) in managing a TOP request and the need to respect cultural and religious beliefs relating to unwanted pregnancy, including conscientious objection. Discuss where a woman might seek help and advice regarding unwanted pregnancy.
- Understand the factors leading to unwanted pregnancy.
- Be able to describe the correct condom technique to a patient & be aware of the factors that increase the risk of failure e.g. use of oil-based lubricant.

## Abdominal Pain in a Female & Testicular Pain in a Male

- Revise the anatomy of the reproductive system in both sexes.
- To consider the differential diagnosis of a female with lower abdominal pain and what factors in the history and clinical examination would aid diagnosis.
- Understand what investigations would be most appropriate and when urgent hospital admission or specialist referral would be needed for a female with lower abdominal pain.
- Be able to describe the pathophysiology, diagnosis and management of Pelvic Inflammatory Disease.
- To understand the importance of exclusion of pregnancy as a cause of the pain, considering the reliability and specificity and timing of "bedside" pregnancy testing.

- To consider the differential diagnosis of a male with testicular pain and what factors in the history and clinical examination would aid diagnosis.
- Understand what investigations would be most appropriate and when urgent hospital admission or specialist referral would be needed.
- Be able to describe the pathophysiology, diagnosis and management of epididymo-orchitis.
- Understand what investigations would be most appropriate and when urgent hospital admission or specialist referral would be needed for testicular pain.

## HIV

- Understand the basic epidemiology of HIV.
- Understand the public health issues for control of spread of infection both locally and globally.
- Identify opportunities for sexual health promotion including opportunities for early diagnosis of HIV in related and unrelated medical contexts.
- Understand the pathophysiology of HIV including the mechanisms and modes of transmission.
- Recognise the medical presentations of primary and established HIV, including AIDs defining illness.
- Describe the basic principles and aims of anti-HIV therapy, including major side-effects and interactions of therapy.
- Understand the importance of adherence and the issues of drug resistance.
- Understand the importance of antenatal HIV screening and the impact of treatment of HIV positive pregnant women.
- Describe the concept of Post Exposure Prophylaxis (PEP) and its role after occupational and Sexual Exposure (PEPSE)
- Be aware of legal and ethical issues in relation to confidentiality and HIV and the impact on disclosure in relation to partner notification.
- Consider legal issues relevant to healthcare workers relating to HIV.

## LGBT Issues

- To improve communication skills in discussing sexual health issues with people from the LGBT community.
- Describe the sexual health risks for female partners of bi-sexual men?
- Discuss the concepts of 'gender identity', 'gender dysphoria', and 'gender variance'; in what circumstances might a person's gender identity be a source of conflict or distress?
- Consider the ways in which the quality of qualitative research may be assessed; explore which concepts or criteria are appropriate/inappropriate and why.

## Communication Skills for Sexual Health

- To develop an understanding of the barriers to talking about sex for patients and for health professionals.
- To consider ways of overcoming barriers relating to talking about sex.
- To be able to take an appropriate sexual history from a patient, including information needed to identify risk factors for STIs & blood-borne viruses (BBV) which will influence testing and partner notification.



- To be able to take an appropriate sexual health history, including in seemingly unrelated consultations.
- To be able to discuss contraceptive choices to enable patients to make informed decisions on those choices.
- To be able to undertake appropriate STI and HIV risk assessment and to be able to communicate this risk to individual patients in a sensitive and non-judgemental manner.

### **Clinical Skills**

- To be competently able to perform female genital examination including speculum examination and bimanual pelvic examination.
- To be able to competently perform male genital examination including testicular examination.
- To be able to competently take endo-cervical and high vaginal swabs in a female and understand when this would be appropriate.
- To be able to explain to a patient how to perform self-taken tests (first pass urine, MSSU, vulvo-vaginal swabs) and understand when these are appropriate.
- To have observed how to take a male urethral swab and understand when this would be appropriate.

### **Sexual Assault & PEPSE**

- Discuss how to identify possible victims of sexual assault.
- To have a basic understanding of the management of sexual assault.
- Discuss where to refer possible survivors of sexual assault.
- Understand the risk assessment used to inform appropriate recommendation of PEPSE.
- Investigate what screening tools are available to aid the identification of patients at risk of domestic abuse?
- Outline what may constitute domestic abuse and give examples.
- Identify and discuss the societal factors that increase the risk of, and serve to maintain, abusive relationships.
- Explore the role of gender within abusive relationships.
- Outline the legal framework surrounding sexual behaviour.

### **Sexual Health & Young People**

- Discuss application of the Fraser Guidelines within scenarios.
- Discuss Safeguarding issues and consider the BASHH guidelines for the risk assessment of young people.
- Discuss the law relating to sexual activity as relevant to young people (U13 and U16).
- Consider possible barriers to young people seeking and accessing sexual health advice and treatment.
- Outline the ethical arguments in support and against informing those with parental responsibility for a sexually active teenager?

### **Therapeutics**

#### **Adverse Drug Reactions & Drug Interactions**

- Define and describe two examples of types A and B adverse drug reactions.

- Describe the reporting of adverse drug reactions via the yellow card scheme.
- Distinguish between four types of pharmacokinetic drug interactions and describe an example of each.
- Identify and describe the two types of pharmacodynamic drug interactions using an example.
- Outline the different types of drug interaction.
- Discuss the role of the cytochrome P450 enzyme family in drug metabolism and their involvement in common drug interactions.

### Common Prescribing Errors

- Understand why and how errors are reported nationally and locally.
- Recognise areas most commonly associated with prescribing errors.
- Identify prescribing errors.
- Develop an awareness of drugs most commonly associated with prescribing errors.
- Debate who is responsible and accountable for prescribing errors when working within a multidisciplinary team.
- Outline the clinical and legal responsibilities that doctors have when prescribing.
- Explore the challenges doctors face if their professional practices and standards are under scrutiny.
- Explore the appropriate professional responses to and guidance on, when things go wrong.

### Important Drug Errors

- Describe one important interaction for methotrexate, warfarin, and lithium.
- Highlight the dangers of vincristine administration.
- Compare three different antibiotics and their contra-indications, interactions, side effects and allergic potentials: Quinolones, Penicillins, Aminoglycosides (Gentamicin).
- Discuss hepatic mechanisms for drug interactions.

### Introduction to Prescribing

- Use the BNF correctly to support decisions about prescribing medicines.
- Apply the general prescribing advice found in the BNF and the Trust prescribing standards.
- Take a comprehensive medication history.
- Explain the importance of medication history taking.
- Describe five common reference sources for taking a medication history.
- Discuss circumstances in which intravenous administration is preferred over oral for the treatment of infections.
- Identify and resolve inappropriate prescribing practices.
- Discuss the implications that might arise from doctors prescribing for patients they have not seen.
- Consider how the increasing specialisation of healthcare professionals has shaped the occurrence of prescribing errors.

### Substance Abuse

- Describe the common drugs of misuse and how they are taken.
- Describe the physical health consequences of injecting drug use including bloodborne viruses, injection site infections and overdose.

- Understand the importance of chronic hepatitis C infection in people who inject drugs (PWID).
- Understand the stigma and social exclusion associated with illicit substance misuse.
- Describe the main pharmacological (including methadone, buprenorphine and naltrexone) and non-pharmacological treatment options for managing opioid dependence.

## Drug Overdose

- Describe and demonstrate the “sad person score” used to assess a patient’s risk of overdose.
- Identify appropriate resources where doctors can find more information regarding overdose therapy (for instance: Toxbase, Tictac, local protocols).
- Describe the different options for initial overdose management and explain the circumstances in which they are used.
- Describe the management of overdose of the following: paracetamol, aspirin, TCA, opioids, digoxin, cocaine.
- Explain the rationale for, and demonstrate the prescribing of acetylcysteine in paracetamol overdose.
- Describe the signs and symptoms of carbon dioxide / methaemoglobin toxicity.

## Drug Dose Calculations

- Revise how to convert between different units of measurement (weight, volume and concentration) and to be able to do so, accurately and consistently.
- Understand the need for accuracy in conversion between different units of measurement (weight, volume and concentration).
- Revise simple formulae to calculate drug doses in terms of single dose formulations (tablets, capsules and suppositories) and liquid medications and to be able to apply these accurately and consistently.
- Demonstrate how to perform drug dose calculations based on the patient’s weight and to be able to perform such calculations, accurately and consistently.
- Revise simple formulae to calculate fluid infusion rates (mL/hour; drops per minute) and to be able to apply these accurately and consistently.
- Understand how complex drug dose calculations can be broken down into a series of simpler calculations and practice applying simple formulae in complex clinical scenarios.

## Asthma & COPD

- Define clinically the conditions asthma and COPD including their presenting symptoms & signs.
- Explore the pathophysiology of asthma and COPD.
- Detail the diagnostic tests useful to confirm asthma and COPD and their severity.
- Describe how COPD and asthma are differentiated.
- Outline the main therapeutic agents and classes of drugs used in the management of stable asthma and COPD.
- Outline the ‘steps’ in asthma treatment strategy.
- List the main side effects of drugs used to treat asthma and COPD.
- Outline what drugs are used to treat exacerbations of asthma and COPD.
- Describe the ways in which responses to therapy in asthma and COPD can be assessed.

## Ward Visits & Pharmacists

- Discuss common prescribing/medicines reconciliation errors that you come across and how they can be avoided.
- Revisit mechanisms of action, Side effects, and Contra-indications for most common drugs that you come across on the ward e.g. calcium channel blockers, diuretics, ACEI, A2 antagonists, Nitrates, Warfarin, Clopidogrel, Aspirin, Beta blockers.
- Review prescription charts and how items are prescribed – including reviewing legibility, writing according to Trust standards and how each item is prescribed, paying particular attention to VTE risk assessment and prescribing, unusual items/weekly dosing.
- For patients, review any medication interactions, drug-disease, drug-drug, drug-food issues and ADRs.
- Discuss how to resolve issues / problems regarding medication and observing interactions with other HCPs.
- Review different routes of administration, including dose conversions and prescribing for a patient who is nil by mouth. Also look at prescribing of IV medications and fluids.

## Basic Clinical Bacteriology, Antimicrobial Resistance, Antimicrobial Stewardship & Sepsis

- Recap classifications of common medical bacteria and their habitats.
- Relate common medical bacteria to associated clinical conditions.
- Discuss the rationale for selecting an appropriate antibiotic, including defining the infecting organism, the site of infection and the pharmacokinetics of the antibiotic.
- Explore the factors that need to be considered when deciding on the duration of a course of antibiotics, including balancing patient acceptability and patient compliance with eradication of the infection.
- Discuss when it might be more appropriate to not prescribe an antibiotic.
- Explore factors that contribute to the development of antibiotic resistance, including their over-use and patient compliance factors.
- Outline how antibiotic resistance develops in micro-organisms.
- Outline the different types of resistant organisms.
- Describe mechanisms of antimicrobial resistance, including their over-use and patient compliance factors; drug inactivation (e.g. beta-lactamase); altered drug target (change in genetic code and amino acid sequence of target protein); reduced drug accumulation inside bacterium/drug efflux etc.
- Evaluate different prescribing interventions that can be implemented to prevent antimicrobial resistance.
- Develop an awareness of national and international guidance on antimicrobial stewardship and infection prevention/control.
- Describe the key clinical signs of infection.
- Outline clinical situations when it would be inappropriate to prescribe antibiotics (such as bacterial colonisation and viral infection).
- Describe external influences that may affect antimicrobial prescribing.
- Recap the structure of the bacterial cell wall in both gram positive and gram negative bacteria.
- Describe the spectrum of action of the beta-lactam based antibiotics.
- Discuss the key measures that can be taken to prevent spread of infection.

- Explain how gram negative and gram positive bacteria can cause shock and sepsis.
- Discuss when it would be appropriate to prescribe a broad spectrum antibiotic and when to prescribe narrow spectrum antibiotics.
- Explain the role that radiology can play in diagnosing infection.

### **Common Endocrine Disorders (Not Diabetes)**

- Describe the principal causes, natural history, clinical presentation, and principles of treatment of thyroid disorders.
- Describe the principal causes, natural history, clinical presentation, and principles of treatment of adrenal disorders.
- Describe the principal causes, natural history, clinical presentation, and principles of treatment of pituitary disorders.

### **Thrombosis**

- Describe the principal causes, natural history, clinical presentation, and principles of treatment of venous thrombosis.
- Differentiate between haemorrhage, thrombosis, and embolism, and how antiplatelets, warfarin, new oral anticoagulants and heparin affect these, with reference to the coagulation pathways.
- Review coagulation pathways.

### **Cardiac Arrhythmia**

- Describe the different types of cardiac arrhythmias.
- Describe the pathophysiology, aetiology and clinical features of atrial fibrillation.
- Describe the principles of management and investigation of atrial fibrillation and other cardiac arrhythmias.
- Explain the pharmacology of the drugs used to treat atrial fibrillation and other cardiac arrhythmias.
- Describe what is meant by 'loading dose' and explain the rationale for administering a loading dose amiodarone in the scenario.
- Outline the key features of a randomized controlled trial (RCT) of a new drug that has been developed to treat AF.
- Describe how to work out how many participants are needed in an RCT for the results to be robust.
- Outline the differences between statistical significance and clinical significance.
- Understand the quantitative measures used to report the outcomes of RCTs and be able to interpret them.
- Outline the advantages and disadvantages of using RCTs compared to other study designs.

### **Colitis**

- Outline the symptoms, management and complications of ulcerative colitis.

## **Additional Sessions**

### **Safety**

- Explore the elements of in-patient care that contribute to and detract from patient safety.

- Reflect on why practices happen in the way that they do – what role does organisational culture play in this?
- Consider whether practices/events/incidents could be handled differently to improve patient safety.
- Be aware of how safety is created in teams, sustained by practices and cultures.
- Consider your contribution to patient safety as a member of the team - questioning, communicating, and contributing to a positive safety culture.
- Apply frameworks for understanding patient safety (individual error, human factors, socio-cultural) to a critical incident.
- Describe the 'systems' approach to understanding patient safety.
- Critically discuss the processes of socialisation and professionalisation that you are going through and the implications they hold.

### **Data Analysis Workshop**

- Consider the ways in which the quality of qualitative research may be assessed; explore which concepts or criteria are in/appropriate and why.
- PH Data analysis workshop.

### **Ethical Case Reflection**

- Apply knowledge of Clinical Decision Making aids to own experiences.
- Critically evaluate Clinical Decision Making aids.
- Develop analytical and critical thinking skills.
- Enhance decision-making capabilities.
- Gain insight into the roles and responsibilities of Clinical Ethics Committees within the NHS.
- Application of Clinical Decision Making aids (4Ps and Qs) to cases.
- Identify the strengths and weakness of Clinical Decision Making aids.
- Reflect on the applicability and relevance of specific Clinical Decision Making aids in certain environments and circumstances.