Year 3 Learning Outcomes

By the end of Year 3, you should be able to…

(*italics = ability may be best demonstrated in discussions, mock situations or using peers or professionals as simulated patients*)

HISTORY, EXAMINATION AND PROCEDURES

- **Take, record, and summarise a patient's medical history - talking to relatives or other carers where appropriate – including:**
  - presenting complaint
  - history of presenting complaint
  - systems review
  - dietary history
  - past medical history
  - family history
  - personal and social history
  - drug history (including allergies)
  - establish ideas, concerns, expectations, and the patient's own illness representation.
  - assess how their condition affects the life of the patient and their relatives.

- **Make accurate observations of clinical phenomena.**
  Perform, and recognise and summarise abnormal findings from, a full physical examination including:
    - General physical examination
    - Cardiovascular system
    - Respiratory system
    - Alimentary system and abdomen
    - Neurological system
    - Locomotor system

  Perform a basic mental-state examination, including mini-mental state

- **Be able to describe, perform, measure and/or record a range of diagnostic and therapeutic procedures, as listed in the Logbook.**

- **Apply the basic principles of communicable disease control and infection prevention.**

PATIENT-CENTRED PRACTICE AND COMMUNICATION SKILLS

- **Communicate clearly, sensitively and effectively:**
  - with patients, relatives, carers, and colleagues.
  - in various roles (e.g. patient advocate, teacher, manager).
  - recognising non-verbal communication and incorporating it into your practice
  - regardless of people's age, social, cultural or ethnic backgrounds or their disabilities, including when English is not the first language.
  - with people who are angry, upset, vulnerable, or have a mental illness.
  - when discussing sensitive issues, such as alcohol consumption, smoking, sexual health or obesity.

- by spoken, telephone, written and electronic methods, and be aware of other methods of communication used by patients.
    - Record a history and examination.
    - Write up and present case presentations.
    - Maintain patients' records concisely, accurately & legibly
    - Make effective use of computers and other information systems, including storing and retrieving information.
    - *Write a discharge letter.*
    - *Write a clinic letter to a GP.*

- ***Provide explanation, advice, reassurance and support to patients (and their carers).***
    - *Explain test results*
    - *Explain procedures*, including
        - Endoscopy
        - Chest x-ray
        - Contrast enema/meal
        - IVU
        - CT
        - USS abdomen/pelvis
        - Echocardiography
        - Doppler
        - MRI
        - Isotope scan (bone, lung, thyroid)
    - *Explain treatment regimes.*
    - Understand the principles of breaking bad news or sharing difficult news

- **Place patients' needs and safety at the centre of the care process. Adopt the principles of patient-centred care and deal with patients' healthcare needs in consultation with them and, where appropriate, their relatives or carers.**
    - Assess how their condition affects the life of the patient and their relatives.
    - Elicit the patient's understanding of their condition and treatment options.
    - Elicit and respond to the patient's concerns.
    - Elicit and respond to patient's expectations of the clinical encounter.
    - Determine the extent to which the patient wants to be involved in decision-making about their care.
    - *Obtain informed consent, where appropriate.*
    - *Formulate a plan for investigation, treatment and management in partnership with the patient and their carers as appropriate.*
    - Respect the rights of patients to reach decisions with their doctor about their care and to refuse or limit treatment.
    - Demonstrate awareness of the WHO ICF (International Classification of Functioning, Disability and Health) model.
    - Describe the standardised assessments of cognition, capacity and function.
    - Demonstrate an understanding of the impact of impairments, activity limitations and participation restrictions on the individual.
    - Analyse the impact on carers of someone with impairments, activity limitations and participation restrictions.

DIAGNOSIS

- Synthesise a full assessment of the patient's problems, appreciating the importance of clinical, psychological, social, religious, and cultural factors.
- Interpret findings from the history, physical and basic mental state examination, and investigations.
- For any one patient, outline a list of differential diagnoses, particularly focussing on common and important disorders.
- Appreciate the processes by which a differential diagnosis is made.

FORMULATING PLAN OF INVESTIGATION

- Appreciate the fundamental principles underlying investigative techniques.
- Formulate and justify a plan of investigation for common clinical cases.
- Have a basic understanding of cost/resource implications of investigations.

MANAGEMENT

- *Make clinical judgements and decisions, based on the available evidence; this may include situations of uncertainty.*
    - Apply strategies to reduce the effects of heuristics and cognitive biases on clinical decision making.
- Formulate a treatment plan for common diseases according to scientific principles, and be able to recognise their modes of action and their risks.
- Identify ways of preventing common diseases.
- Recognise how to support patients in caring for themselves and promote self management programs.
- Recognise the principles underlying the care of patients and their families at the end of life.

SAFE AND EFFECTIVE PRESCRIBING

- Establish an accurate drug history, covering both prescribed and other therapies.
- Plan appropriate drug therapy for common indications, including pain and distress, and recognise the potential for side effects.
- *Provide a safe and legal prescription.*
- *Provide patients with appropriate information about their medicines.*
- Appreciate that, and explain why, many patients use complementary and alternative therapies.

ASSESSMENT AND MANAGEMENT OF EMERGENCIES

- Recognise the severity of a clinical presentation and the need for immediate emergency care.
- Diagnose acute medical emergencies.
- Provide basic first aid.
- *Provide immediate life support.*
- *Provide cardio-pulmonary resuscitation, working with other team members.*

WORKING WITH THE MULTI-DISCIPLINARY TEAM AND OTHER PROFESSIONALS; ADMISSION, DISCHARGE AND PLACE OF TREATMENT

- Appreciate the framework in which medicine is practised in the UK, including the organisation and management of healthcare provision.
- Work with colleagues, including those in other professions, in ways that best serve the interests of patients.
    - Demonstrate an understanding and respect for other professionals and the contribution that effective interdisciplinary team-working makes to the delivery of safe and high-quality care.
    - Communicate effectively with other professionals, including passing on information, with the aim of improving the patient pathway.
- Formulate a plan for discharge.

APPLYING SCIENTIFIC METHOD, RESEARCH APPROACHES, EVIDENCE-BASED MEDICINE AND STATISTICS.

- Appreciate the importance of evidence-based practice when deciding upon a treatment plan.
- For the most common disorders, cite a major piece of evidence and/or national guideline (e.g. NICE) that supports a treatment plan.
- Apply findings from the literature to answer questions raised by clinical problems.

ASSESSING PSYCHOLOGICAL FACTORS; PSYCHOLOGICAL AND PSYCHOSOCIAL MANAGEMENT AND CHANGING BEHAVIOUR

- Identify psychological factors that may be contributing towards a patient's illness, the course of the disease, treatment adherence, and/or the success of treatment.
- Appreciate the ways a patient may adapt to major life changes (inc. illness and bereavement) and relevant illness-related, personal, physical and social environmental factors and appraisals contributing to successful or dysfunctional coping.
- Recognise that patients may present with physical symptoms, but whose underlying causes are psychological rather than physical, such as in psychosomatic disorders.

- Assess patient preferences for coping with treatment and adapt preparation accordingly and utilise basic psychological strategies to reduce pain and distress during medical procedures.

SOCIOLOGICAL PRINCIPLES, PROCESSES AND FACTORS; THE DISTRIBUTION AND DETERMINANTS OF DISEASE

- Identify sociological and social factors that may be contributing towards a patient's illness, the course of the disease and/or the success of treatment − including issues relating to:
  - health inequalities
  - the links between occupation and the environment and health
  - the effects of poverty and affluence.
- Discuss the role of nutrition in health and take a nutritional assessment.

DISEASE PREVENTION, HEALTH PROMOTION, PATIENT SAFETY and CLINICAL GOVERNANCE

- Discuss the basic principles of health improvement and disease surveillance, using examples from your clinical experience.
- Discuss the principles and application of primary, secondary and tertiary prevention of disease, using examples from your clinical experience.
- Discuss and apply the basic principles and methods of communicable disease and infection control in hospital and community settings.
- Apply the principles of quality assurance, clinical governance and risk management to medical practice. Promote, monitor and maintain health and safety in the clinical setting:
  - Discuss how errors can happen in practice
  - Appreciate concepts in error theories
  - Recognise own personal and professional limits and seek help from colleagues and supervisors when necessary.
  - Recognise conditions and situations that predispose to error and to take measures to control them.
  - Outline responsibilities and processes for raising concerns about safety and quality, and apply where necessary.

APPLY TO MEDICAL PRACTICE BIOMEDICAL SCIENTIFIC PRINCIPLES, METHOD AND KNOWLEDGE

- Apply knowledge of normal human structure and function to medical practice.
- Explain the scientific bases and causes for common disease presentations.

ETHICS, LAW and the GMC

- **Adopt the clinical responsibilities and role of the doctor, including the legal and ethical responsibilities involved in protecting and promoting the health of individual patients, their dependants and the public − including vulnerable groups.***
  - Outline and adopt the GMC's ethical guidance and standards including Good Medical Practice.
  - *Demonstrate knowledge of laws relevant to medical practice, including the ability to complete relevant certificates and legal documents and liaise with the coroner or procurator fiscal where appropriate.*
  - Recognise the rights and the equal value of all people and how opportunities for some people may be restricted by others' perceptions.
  - Identify the signs that suggest vulnerable people may be suffering from abuse or neglect and know what action to take to safeguard their welfare.
  - Keep to the requirements of confidentiality and data protection legislation and codes of practice in all dealings with information.
  - Assess a patient's capacity to make a particular decision in accordance with legal and GMC guidance.
  - Accept the importance of appropriate consent.

- **Be polite, considerate, trustworthy and honest, act with integrity, respect patients' dignity and privacy.**
- Respect all patients, colleagues and others regardless of their age, colour, culture, disability, ethnic or national origin, gender, lifestyle, marital or parental status, race, religion or beliefs, sex, sexual orientation, or social or economic status.

CONTINUING PROFESSIONAL DEVELOPMENT

- Establish the foundations for lifelong learning, including a professional development portfolio containing reflections and achievements.
- Continually and systematically reflect on practice and, whenever necessary, translate that reflection into action.
- Respond constructively to the outcomes of appraisals and assessments
- Manage time, prioritise tasks, and work autonomously when necessary and appropriate.

Some of the above outcomes relate to specific presentations. Below are some common/important presentations with a guide to:

- which system they most commonly relate to ('X')
- which attachment you are more likely to see them in (Surgery, Medicine)

	General	CVS	Resp	GI	Endo	Haem	Renal / Urology	Neurology	Musc	Emergencies
Weight loss	X				X					
Fever	X		X	X			X			
Night sweats	X				X	X				
Tiredness / fatigue	X				X	X		X		
Lumps / nodes in neck/groin	X					X				
Pallor	X					X				
Rashes	X									
Cellulitis	X									
Alcohol abuse	X	X	X	X	X	X		X		
Collapse / Loss of consciousness	X	X						X		X
Chest pain		X	X	X						X
Shortness of breath (acute/chronic)		X	X			X				X
Palpitations		X								X
Oedema		X		X			X			
Claudication		X						X		
Cardiac Arrest		X								X
Stroke		X						X		X
Haemorrhage/shock		X								X
Cough			X							
Haemoptysis			X							
Wheeze			X							
Respiratory failure			X							X
Abdominal pain (acute/chronic)				X						X
Nausea & vomiting				X				X		
Haematemesis				X						X
Diarrhoea				X						
Constipation				X						
GI obstruction				X						X
Melaena/ pr bleed				X						
Weight gain					X					
Polyuria / polydipsia					X					
Goitre					X					
Easy bruising/bleeding					X	X				
Loin pain							X			X
Haematuria							X			
Uraemia							X			
Urinary retention							X			X
Urinary frequency							X			
Incontinence							X			
Scrotal swelling							X			
Headache (acute/chronic)								X		X
Seizures								X		X
Focal motor/sensory disturbance								X		X
Cognitive deficit (delirium/ chronic)								X		X
Joint pain									X	
Joint swelling									X	
Backache									X	
Anaphylaxis										X
Severe sepsis										X
Poisoning										X
Trauma										X
Burns										X

Some of the above outcomes relate to specific disorders/conditions. Below are some common/important disorders, grouped according to system. Many can present as acute emergencies.

CVS	Respiratory	GI	Endocrine
MI Angina Heart failure (acute/chronic) Arrhythmias (inc atrial fibrillation, heart block) Valve disease / endocarditis Hypertension Aortic aneurysm Stroke Lower limb vascular disease Deep vein thrombosis Pulmonary embolism Varicose veins Cardiac arrest Arterial Occlusion	Asthma COPD Pneumonias Tuberculosis Bronchial carcinoma Pneumothorax Fibrosing lung disease Bronchiectasis	Peptic ulcer disease (inc. perforation) Gastro-oesophageal reflux Hiatus hernia Inflammatory bowel disease Inguinal / femoral hernias Hepatitis (acute/chronic) Cirrhosis / portal hypertension Cholecystitis / gallstones Appendicitis Peritonitis Pancreatitis GI Infections Haemorrhoids Anal fissures / fistulas Diverticular disease GI Carcinoma Liver failure	Diabetes mellitus (inc. complications eg. ketoacidosis, non-ketotic hyperosmolar coma) Metabolic syndrome Hypo / hyperthyroidism Osteoporosis Osteomalacia Diabetes insipidus Hypopituitarism / pituitary tumours Acromegaly Cushing's syndrome Adrenal insufficiency Hyperparathyroidism Hypo / hypercalcaemia Hypo / hypernatraemia

Renal / Urology	Rheumatology*	Haematology*	Neurology*
Renal failure (acute/chronic) Glomerulonephritis UTI Renal / ureteric stones Prostatic hypertrophy Carcinoma (prostate, kidney, bladder) Congenital abnormalities of renal tract	Osteoarthritis Rheumatoid arthritis Systemic lupus Sarcoid Polymyalgia rheumatica Acute arthropathy	Anaemia Leukaemia (acute/ chronic) Lymphoma Myeloma Clotting disorder Sickle cell disease Malaria	Migraine Stroke – ischaemic / haemorrhagic Transient ischaemic episodes Meningitis Peripheral neuropathy Subarachnoid haemorrhage Parkinson's disease Epilepsy Dementia Head injury Multiple Sclerosis Myasthenia Gravis Motor Neuron Disease Brain tumours

* These systems will also be specifically encountered in specialist attachments and courses later in the curriculum.

Anaesthetics

- Apply your understanding of basic physiology to the cardiovascular, respiratory and metabolic events, normal and abnormal, occurring during anaesthesia
- List the common medical conditions likely to increase perioperative risk and the principles of their management
- Recognise critical events perioperatively
- Identify the critically ill patient, in particular sepsis and the systemic inflammatory response syndrome following major surgery
- Describe the principles of management of critically ill patients, with particular emphasis on oxygen therapy and fluid balance
- Outline approaches to the management of acute pain, particularly post-operatively, and of chronic pain, emphasising the multidisciplinary nature of the pain team