



**Year 4 Study Guide
2018-19**

The UCL Doctor

A highly competent and scientifically literate clinician, equipped to practise person-centred medicine in a constantly changing modern world, with a foundation in the basic medical and social sciences. This vision is underpinned by the values of scholarship, rigour and professionalism. The focus is on the development of the student as a scientifically informed, socially responsible professional who, in turn, can serve the health needs of individuals and communities.

Year 4
Integrated Clinical Care

The information contained in this Study Guide was correct at the time of going to press, but no guarantees can be given that it will not be amended before the commencement of, or during, the degree programme to which it refers. Please refer to the Year 4 Moodle Pages regularly throughout the year.

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Section 1: Introduction to Year 4

Welcome to Year 4 of the MBBS programme at UCL Medical School. This booklet acts as an orientation to your studies in Year 4, outlining the overall structure of the year, how learning will be organised, how you will be assessed, and the criteria for successful progression to Year 5. The information in this booklet is not exhaustive and should be used alongside the resources on the MBBS Year 4 website <https://www.ucl.ac.uk/medical-school/information-current-mbbs-students-and-staff> and the Year 4 Moodle pages.

The purpose of this Student Guide

Workplace-based learning is the backbone of Year 4 and moving towards predominantly workplace-based learning can be a challenging transition for students, whether they have just completed Year 3 or Year 2 at UCL or have transferred from another university. The advice, guidance and checklists in this booklet are set out to help you make the most of the complex and varied learning environment and activities during Year 4 and focus your learning on both the aims of the year and the individual modules within Year 4.

The aims of Year 4

The theme of Year 4 is 'integrated clinical care'. The aims of this year are to:

- help you to learn from healthcare experiences
- become skilled at interviewing and examining patients with a range of problems across the range of healthcare settings
- become familiar with the ways in which patients access the healthcare system and the pathways of care for a range of common presentations
- understand the integrated approach to diagnosing and managing patients' problems
- safely and clearly document information about patients and their care in a clinical notes system

To achieve this, much of your learning will take place in healthcare settings to ensure you will have exposure to patients with a wide range of healthcare needs including primary care and community care presentations, chronic disease management, acute illness presentations, mental health issues, and pre/peri and post-operative care.

The year is not focused on rotating through as many specialities as possible, but instead about spending time in longer, more generic and integrated attachments to better understand illness prevention, presentation and management. You will have further learning opportunities in many of these specialities in year 5 and particularly year 6 so do not feel that year 4 is only about learning about the medical and surgical specialities. It is about learning how to learn in the clinical setting and becoming experienced in taking histories and examining patients. However, you will see some specialist services and patients with rare conditions during the modules and

you should make the most of these unique learning opportunities that you might not see again until you are qualified. Year 4 is also a time when you will be both looking backwards: to your past learning, and understanding how theory and understanding of health and disease links to practice; and forwards: using the learning in this year as a key part of your journey to becoming a Foundation doctor.

By the end of Year 4 you should:

- be an excellent workplace learner: being able to make the most of experiential learning opportunities
- understand how the NHS works and the roles of a range of healthcare providers within it
- understand how a range of common diseases present and are managed in both community and hospital settings
- be able to communicate comfortably and effectively with patients
- have developed a wide range of clinical skills and be able to carry out practical procedures competently
- be able to use the information gathered from patients, together with your developing understanding of medicine, to produce a differential diagnosis and problem list
- be proficient in undertaking and presenting a full medical clerking (history, examination, differential diagnosis, problem list and management plan)

The structure of the Year

- The year begins with an Introduction and Orientation Module (IOM) of three weeks, which comprises:
 - a general introduction and orientation to Year 4 including details of in-course and end of Year assessments
 - opportunities to develop key skills in communicating with and examining patients
 - supported visits to clinical settings to reinforce these skills
 - an introduction to some of the modules that run through Year 4 and to begin to define your learning needs as you move into your next module
- You will then undertake three further 13-week modules in rotation, mostly, but not exclusively, at one of the three main clinical campuses. Each module will consist of a one week introductory teaching programme followed by 12 weeks of clinical placements
- Your medicine in the community attachment in general practice will run in parallel to your hospital firms throughout the year
- Following one week of personal revision time, you will complete the summative assessment at the end of the year
- During the year you will: maintain a portfolio, including in course assessments; complete your record of completed procedures card; attend your General Practice placements; attend the *Cancer Patient Pathway* and attend the additional Clinical and Professional

Practice teaching sessions which usually, but not exclusively, take place on Thursday afternoons

- Progression to Year 5 will depend on satisfactory progress in the summative assessments, completion of required course work, satisfactory sign off in Modules A, B and C, and the submission of a satisfactory portfolio.
- You will have been sent details of the sites where you will undertake each module, your allocated GP practice for the year and your Clinical and Professional Practice group details before you begin Year 4

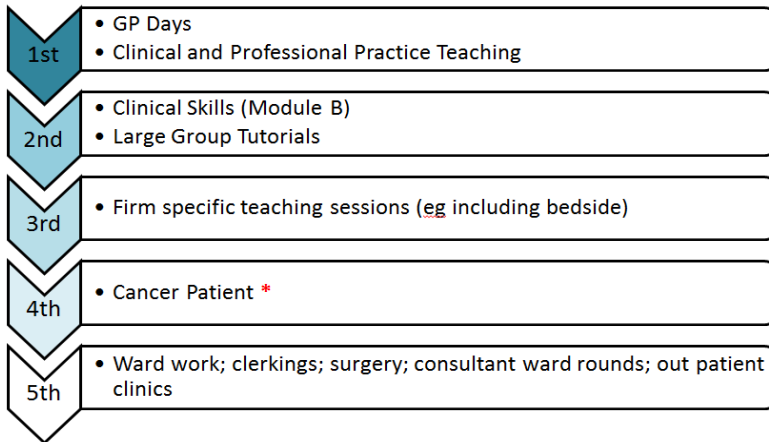
Timetable for the Year

The following is an overall timetable for Year 4 in the academic Year 2018-2019. You are advised to check the UCL Medical School website for the most up to date information.

| Dates | Schedule |
|------------------------------|---|
| 03/09/2018 - 21/09/2018 | Introduction and Orientation Module |
| 24/09/2018 - 28/09/2018 | Module A, B and C Core Teaching Weeks (CTWs) |
| 01/10/2018 - 21/12/2018 | Modules A, B and C (<i>holiday 18/12/17 - 01/01/18</i>) |
| 07/01/2019 - 11/01/2019 | Module A, B and C CTWs (<i>Bank Holiday 01/01/2018</i>) |
| 14/01/2019 - 05/04/2019 | Modules A, B and C (<i>Holiday 29/03, 30/03, 02/04, 03/04, 04/04</i>) |
| 08/04/2019 - 12/04/2019 | Module A, B and C CTWs |
| 15/04/2019 - 12/07/2019 | Modules A, B and C (<i>Bank holidays on 7/5/18 and 28/5/18</i>) |
| 15/07/2019 - 19/07/2019 | Personal revision |
| 22/07/2019 - 26/07/2019 | Clinical assessments |
| 01/08/2019 | Written assessments |
| 08/08/2019 10:00 – 12:00 | Results |
| 08/08/2019 PM and 09/08/2019 | Student Support Appointments for unsuccessful candidates |

The Year 4 timetables are complicated, sometimes with more than one learning opportunity at the same time. The flow chart below indicates the priorities for your attendance in Year 4.

Year 4 Teaching Priorities



* Students should attend between 3 - 5 cancer patient visits between October – March, please note that you do not need to attend every appointment with your patient. If attending patient visits is precluded by timetabling please discuss specifically with your firm lead and get their permission to miss teaching before you go and please inform your module administrator once the consultant has agreed.

Any Student Support or Personal Tutor appointment takes priority over all teaching activities.

Section 2: The Horizontal modules and Clinical and Professional Practice in Year 4

The Introduction and Orientation Module (IOM)

During this three week module, you will begin to develop the skills, competencies and understanding to help you make the most of your experiences in Year 4. A range of teachers and clinical teams contribute to your learning in the Year 4 IOM. This includes the PALS: senior students in their final year at UCL, who will help you make this important transition into patient based learning in the context of delivering clinical care. You will spend time in the lecture theatres, in the clinical skills centres, in small group work sessions, in general practices, and on hospital wards.

All students take the IOM together then students rotate through the three remaining Year 4 modules.

The aims of the Year 4 IOM are to:

- prepare you for the integrated clinical care year
- prepare you for maximising the benefits of workplace-based learning that is the backbone of Year 4
- ensure that you recognise a range of issues that contribute to the provision of safe, high quality, patient-centred care
- equip you with foundation skills in the following
 - interviewing (history taking)
 - clinical examination
 - completing and documenting a full medical clerking
 - developing a problem list and an action plan for a patient
 - developing an understanding of clinical reasoning

Module A

During this 13-week module you will learn skills and knowledge central to being a doctor. The emphasis is on the global management of individuals as well as pathways of care for specific presentations and disease conditions.

The aims of Module A are for you to:

- become fully competent in undertaking a full history and examination
- acquire competence in differential diagnosis, problem lists and patient management
- observe and participate in medical practice i.e. to be a junior apprentice
- be aware of pathways of care for common presentations and conditions
- participate in on-take activities including out of hours

Module B

The aims of Module B are for you to:

- gain competence in the clinical assessment, diagnosis, investigation, and medical and surgical treatments of patients presenting with the common problems related to digestive health
- gain competence in the clinical assessment, diagnosis, investigation and medical and surgical treatments of patients presenting with common musculoskeletal problems and trauma
- obtain competence in the fundamentals of surgery, and experience the culture of a surgical hospital firm

- obtain competence in the principles of pre-, intra- and post-operative care
- meet patients in the community with problems related to digestive health; movement; or post-operative care
- acquire and gain confidence in undertaking basic clinical and surgical skills including accreditation on the Royal College of Surgeons of England Surgical Skills for Students course which is integrated in the module.

Module C

The aims of Module C are for you to:

- become fully competent in undertaking a full medical history from any patient and to be able to perform a full physical examination
- be able to begin to formulate differential diagnoses from the information obtained
- know how to look up and interpret all relevant investigations pertaining to the patient - biochemical, pathological and radiological - and to be able to discuss these intelligently
- learn how to document all the above in a structured way
- develop an awareness of common chronic diseases and how these are managed
- learn how patients are managed in a specialised unit in conjunction with a GP
- learn how to work effectively in a team
- be proactive in seeking out learning opportunities

Clinical and Professional Practice (CPP)

There are 16 Clinical and Professional Practice (CPP) modules in the MBBS curriculum; organised into three groupings. These are:

- Integrated Clinical and Professional Practice
- Overarching Themes
- Student-centred Learning, Person-centred Learning

The overall aims of CPP are to enable you to:

- understand medicine as an integrated whole
- understand how theory and understanding of health and disease link to practice
- make evidenced-based clinical decisions that promote person-centred practice in a rapidly evolving healthcare system
- integrate knowledge of biomedical and human sciences to enhance your interpretation of the patient's own narrative, physical signs and social data

- develop and demonstrate your professionalism through commitment to the duties of a doctor, an understanding of patient safety and the application of ethical and legal principles.

Details of the CPP timetable and curriculum can be found on the Year 4 CPP Moodle course.

Section 3: Medical Student Code of Conduct

UCLMS enjoys a reputation as a world class medical school and prides itself on creating Tomorrow's UCL Doctors - *highly competent and scientifically literate clinicians, equipped to practise person-centred medicine in a constantly changing modern world, with a strong foundation in the basic medical and social sciences.*

As a medical student you will study for a degree which, in conjunction with the General Medical Council's Medical Licensing Assessment, allows you to work as a Foundation doctor. UCLMS has a duty to ensure that its students can fulfil the requirements of the General Medical Council, both for studying medicine and for working as a doctor, and it fulfils this duty by enabling students to acquire the knowledge and to develop the skills and attitudes appropriate to their future role. These include professional behaviour and fitness to practise right from the start of the programme.

UCL medical students are therefore required to abide by this medical student code of conduct and MBBS policies set out at:

www.ucl.ac.uk/medicalschoo/staff-students/general-information/a-z.

With relation to fitness to practise, you are specifically required to declare any issues which might affect your fitness to practise and to carry a student support card outlining any restrictions to your practice or special requirements and to present the card to each educational supervisor to whom you are attached so that they are aware of your circumstances.

This code of conduct sets out the School's expectations of you as a UCL medical student and must be read in conjunction with:

- **MBBS policies set out at: <http://www.ucl.ac.uk/medicalschoo/staff-students/general-information/a-z>.**

Policies specific to conduct include:

- **Absence reporting**
- **Additional placement-related experience**
- **Attendance and engagement**
- **Communications**
- **Concerns over Professional Behaviour(s)**
- **Dress and Behaviour**
- **Disclosure and Barring Service checks**
- **Duties of a doctor and student ethics**
- **Exceptional Leave**
- **Fitness to Practise proceedings**
- **Freedom of information**
- **Harassment and bullying**
- **Health clearance /Immunisations and BBVs**
- **Honesty and probity**
- **Patient confidentiality**
- **Patients in medical education**
- **Personal beliefs**
- **Use of social media**
- **Student Support Card**
- **Substance use and misuse**

General Medical Council policies set out at:

- http://www.gmc-uk.org/guidance/good_medical_practice.asp
- http://www.gmc-uk.org/guidance/good_medical_practice/duties_of_a_doctor.asp
- http://www.gmc-uk.org/education/undergraduate/professional_behaviour.asp

If you anticipate any difficulty adhering to any element, please make an appointment with a Student Support Tutor who will discuss with you how best to reconcile it.

Students are advised to join either the MDU or the MPS, both of which offer free student membership and provide advice in the event of medical student negligence.

In the interests of public safety, in accordance with GMC and NHS requirements, and in your own best interests, information pertinent to your educational achievements and to your fitness to practise may be shared by UCLMS with training providers, employers, regulatory organisations as set out in the School's privacy notice. Additionally, details of students who are excluded from UCLMS on fitness to practise grounds will be shared with the Medical Schools Council (MSC) for inclusion in their database of excluded students, which is accessible only to other schools with courses leading to entry to a registered profession in the UK.

1. Attendance through the programme must fulfil the number of theoretical and practical hours required for undergraduate medical training. To achieve this level, you are expected to attend between 9am – 5pm on Monday, Tuesday, Thursday and Friday and 9am – 12.55pm on Wednesday and to attend some teaching events starting at 8.00am or finishing at 6.00pm. During Years 4-6 there may be occasions when you are also expected to attend in the evening, early morning and at weekends. You are also expected to spend a minimum of 10 hours per week in personal study outside the programme.
2. You are required to inform us of any absence from teaching following the process set out in the School's attendance and engagement policy. Exceptional leave may only be taken with prior permission after completing the process set out in the School's authorised leave policy.
3. You must listen to patients and respect their views, treat them politely and considerately, respect patients' privacy and dignity and respect their right to refuse to take part in teaching.
4. You must not allow personal views about a person's age, disability, lifestyle, culture, beliefs, ethnic or national origin, race, colour, gender, sexual orientation, marital or parental status, social or perceived economic status to prejudice your interaction with patients, teachers, professional services staff or colleagues.
5. You must be honest. You must not abuse the trust of a patient or other vulnerable person. You must not plagiarise material from other sources and submit it as your own work. You must not present false information or omit important information in your dealings with the Medical School or in any application related to your studies, including UCAS form and Foundation School application. Dishonesty is a fitness to practise issue.

6. You must not enter into an improper personal relationship with another person, for example, with a school pupil whom you are mentoring or a member of staff who is teaching you.
7. You must always make clear to patients that you are a student and not a qualified doctor. Introducing yourself as a “medical student” or “training to be a doctor” is preferable to describing yourself as a “student doctor”. You must always act within the direction of your educational supervisor(s) and within the remit and competencies of a medical student.
8. You are bound by the principle of confidentiality of patient records and patient data. You must therefore take all reasonable precautions to ensure that any personal data relating to patients that you have learned by virtue of your position as a medical student will be kept confidential. You must not discuss patients with other students or professionals outside the clinical setting, except anonymously. When recording data or discussing cases outside the clinical setting you must endeavour to ensure that patients cannot be identified by others. You must respect all hospital and practice patient records.
9. You must maintain appropriate standards of dress, appearance, and personal hygiene so as not to cause offence to patients, teachers, or colleagues. The appearance of a student must not be such as to potentially affect a patient’s confidence in their professional standing.
10. You must be aware of safe drinking guidelines for alcohol and to adhere to these guidelines. Misuse of alcohol and any use of an illegal drug is a fitness to practise issue.
11. To ensure appropriate communication, students are required not to cover their faces in any part of the programme, including assessments/examinations, except where clinically indicated.
12. You are required physically to examine patients of both sexes (which includes touching and intimate examinations) in order to establish a clinical diagnosis, irrespective of the gender, culture, beliefs, disability, or disease of the patient. In order to qualify as a doctor in the UK, it is required that the practitioner is willing to examine any patient as fully and as intimately as is clinically necessary.
13. You must attend Trust inductions before taking up placements and adhere to local Trust policies and procedures.
14. You must keep your health clearance and immunisations up-to-date and inform the Divisional Tutor of any changes which might affect your ability to undertake Exposure Prone Procedures, e.g. exposure to, or infection with, blood-borne viruses. Exposure Prone Procedures (EPPs) are practical procedures which carry a risk of transmission of blood-borne viruses. If you have not had HIV and Hepatitis C testing prior to entry to UCLMS, then you will be required to undergo testing as part of your OH clearance or you will not be able to do EPPs. If you opt not to undergo testing and hence are not cleared for EPPs, you must carry a student support card to present to your clinical placement supervisor explaining that you are not cleared for these procedures and you must not perform or assist in surgical procedures such as episiotomy in Obstetrics, and much of Orthopaedic surgery. This will not stop you qualifying but may have a bearing on your future career.
15. You must adhere to the local NHS Trust policy on infection control during your clinical placements which includes bare arms below the elbow.

16. You must inform us if you are investigated, charged with, or convicted of a criminal offence during your time as a medical student at UCLMS. Although you are required to have a Disclosure and Barring Service check upon entering the School, you must also inform us if you receive a subsequent warning, reprimand, caution or conviction.
17. You must inform us if there is any significant change to your health that might affect your fitness to study medicine or to practise as a doctor. It is a student's responsibility to recognise when they are ill, to seek medical advice, to accept appropriate treatment, and to recognise when their fitness for clinical work is, or could be impaired.
18. You must maintain a portfolio as set out on year moodle sites and present it as requested.

Professor Deborah Gill (Director of UCL Medical School)

Dr William Coppola (Divisional Tutor)

Section 4: Core conditions and common presentations

The learning experiences in the MBBS programme are focused on a set of core conditions and presentations. This list is included here. Those conditions and presentations in **BOLD** are most likely to be seen or addressed in learning in Year 4.

Remember:

- This list is not exhaustive but it should form the basis of your learning
- Workplace-based teaching takes place in the context of clinical care. This means that we cannot guarantee you will see all conditions and presentations on this list nor that patients will present only with these conditions and presentations
- You will need to see patients *and* you will need to read around the subject: neither approach is sufficient on its own
- In clinical practice, patients present with symptoms and problems, not necessarily with a diagnosis as laid out in a textbook, so your learning needs to reflect this
- You should recognise that in up to 30% of cases, no firm diagnosis is ever made

UCL MBBS Core Conditions and Presentations

NOTE: this list applies to the whole of MBBS, and not just Year 4. It is likely that many of these conditions and presentations will be encountered in Year 4, and others more likely in Year 5 for example.

However, if a learning experience presents itself that will improve your knowledge or skills that is not expected in a certain year or is strictly defined as 'required' here then it should still not be overlooked.

Common presentations

- **Abdominal pain**
- **Acute confusion and coma**
- **Blackouts / loss of consciousness**
- **Bloating**
- **Change in bowel habit**
- **Chest pain**
- **Cough**
- **Dizziness**
- **Falls**
- **Fever**
- **Headache**
- **Itching / pruritis**
- **Low back pain**
- **Nausea / Vomiting**
- **Obesity**
- **Palpitations**
- **Polysymptomatic**
- **Rectal or other GI bleeding**
- **Shortness of breath**
- **Sleep problems**
- **Swollen legs**
- **Tired all the time**
- **Urinary symptoms**
- **Weight loss**
- **Wheeze**

Cancer

- **Breast**
- **Head and neck**
- **Larynx**

- Metastatic cancer - Bone, Liver, Brain
- Prostate
- Testes

Child health

- Autism, Aspergers & ADHD
- Birth asphyxia
- Bronchiolitis
- Cerebral palsy
- Coeliac disease
- Congenital heart defects – ventricular septal defect and patent ductus arteriosus (PDA)
- Congenital infections
- Croup
- Cystic fibrosis
- Developmental delay
- Developmental dysplasia of the hip
- Down syndrome
- Failure to thrive / Faltering growth
- Febrile convulsions
- Gastro-oesophageal reflux disease
- Henoch-Schönlein purpura
- Immune thrombocytopaenia
- Infantile colic
- Infantile hypertrophic pyloric stenosis
- Inherited disorders of metabolism
- Intussusception
- Kawasaki disease
- Neonatal jaundice
- Neuroblastoma
- Normal development and puberty
- Pre-term infants
- Respiratory distress syndrome/Hyaline membrane disease
- Rickets
- Separation anxiety / school refusal
- Transient synovitis
- Turner syndrome
- Wilms tumour

Circulation and breathing

- **Arrhythmias - atrial fibrillation, flutter, nodal tachycardia, ventricular ectopics, tachycardia, fibrillation first, second & third degree (complete) heart block**
- **Asthma**
- **Blood vessel disorders (aneurysms, varicose veins, peripheral arterial disease, atherosclerosis)**
- **Chronic obstructive pulmonary disease including bronchiectasis**
- **Heart failure and its consequences**
- **Hypertension**
- **Interstitial lung disease**
- **Ischaemic heart disease**
- **Pericarditis & tamponade**
- **Pleural effusion**
- **Pneumothorax**
- **Lung cancers**
- **Respiratory failure: type 1 and 2**
- **Superior vena cava obstruction**
- **Thromboembolism - arterial and venous**
- **Upper and lower respiratory tract infections including infections in immunocompromised patients**
- **Valvular heart disease including infective endocarditis**

Endocrine system regulation and reproduction and genetics

- Adrenocortical insufficiency and excess
- **Diabetes mellitus Type 1 and type 2**
- **Diabetic emergencies: ketoacidosis, hypo and hyper glycaemia, hyperosmolar non-ketotic Coma**
- **Disorders of calcium metabolism**
- Endocrine emergencies: Addisonian crisis, thyrotoxicosis, myxoedema, phaeochromocytoma, pituitary failure
- Gonadal dysgenesis
- Lipid metabolism disorders
- Metabolic syndrome
- Pituitary and adrenal tumours
- Syndrome of inappropriate anti-diuretic hormone (SIADH) and diabetes insipidus
- Thyroid cancer
- **Thyroid dysfunction: hyperthyroidism, hypothyroidism, goitre**

Ear, nose and throat

- Acoustic neuroma
- Acute vertigo/ Meniere's disease
- Cholesteatoma
- Epistaxis
- Facial palsy
- Hearing loss
- Obstructive sleep apnoea
- Otitis Media and Externa
- Otosclerosis
- Pleomorphic salivary adenoma
- Presbycusis
- Rhinitis
- Safe perforations
- Salivary gland disorders

Gastroenterology

- **Alcoholic liver disease**
- **Anal conditions – abscess, haemorrhoids, fistula, fissure**
- **Cancers of the bowel, stomach, oesophagus, liver and pancreas**
- **Diverticular disease**
- **Enteropathies and malabsorption**
- **Functional disorders of the GI tract**
- **Gallstone disease**
- **Gastrointestinal (GI) bleeding**
- **Gastro-oesophageal reflux disease (GORD) / Dysphagia**
- **Hepatitis, cirrhosis, drug related liver injury and metabolic liver disease**
- **Infection and infestations of the GI tract**
- **Inflammatory Bowel Disease**
- **Jaundice**
- **Oesophagitis / Barrett's oesophagus**
- **Pancreatic disorders - pancreatitis, insufficiency**
- **Ulcers – peptic and duodenal**

Haematology

- **Anticoagulation**
- **Bleeding disorders: thrombocytopenia; disseminated intravascular coagulation (DIC); haemophilia**
- **Blood transfusion**
- **Haematological malignancies: lymphoma; leukaemia; myeloma**

- **Haemolysis**
- **Iron deficiency**
- **Megaloblastic anaemia**
- **Neutropaenic sepsis**
- **Polycythaemia**
- **Thrombophilia**
- **Haemoglobinopathies (sickle cell anaemia and thalassaemia)**

Infection and defence

- **Bone and joint infection: osteomyelitis, septic arthritis of joints, TB**
- **CNS infections: meningitis; encephalitis; abscess; infections in the immunocompromised**
- ENT infections
- Genitourinary infections: syphilis; gonorrhoea, chlamydia
- **Hepatobiliary infections**
- HIV
- **Imported fevers including malaria**
- **Septic shock**
- Tuberculosis
- **Urinary tract infection and pyelonephritis**
- Vaccination
- **Viral hepatitis**

Kidneys and urinary tract

Acute Kidney Injury

- Functional anatomy of the kidney
- Creatinine as marker of AKI
- Differentiating AKI from CKD
- Emergency treatment of hyperkalemia and fluid overload
- Pre-renal, post-renal and intrinsic renal causes of AKI
- Assessment of volume status
- Assessment of renal tract obstruction
- Exogenous and endogenous toxins as a cause of AKI

Chronic Kidney Disease

- Relationship between plasma creatinine and GFR
- Use of estimated GFR and urinary albumin to stage CKD
- Common causes of CKD - diabetes, vascular disease

- Hypertension and the kidney
- Blood pressure management in CKD
- Management of fluid overload/hypertension/proteinuria in CKD
- Mineral Bone Disorder (particularly hyperparathyroidism)
- Anaemia
- Drugs and the kidney
- Prostatic hypertrophy and renal tract obstruction
- Assessment and significance haematuria and proteinuria

Intrinsic kidney disease

- Nephrotic syndrome
- Acute Nephritic Syndrome
- Glomerular disease as a cause of AKI and CKD
- Glomerular disease as part of systemic inflammatory disorders
- Interstitial nephritis
- Vesicoureteric reflux and chronic pyelonephritis
- Treatment of glomerulonephritis e.g. Rapidly progressive GN

Renal replacement therapy

- When should dialysis be started in end-stage kidney disease?
- Types of dialysis
- Dialysis access and infection
- Conservative care of end stage kidney disease
- Kidney Transplantation and major complications

Renal and urothelial cancers

Movement and musculoskeletal biology

- Bone cancers
- **Common disorders and injuries of the hip, knee, ankle, foot, neck, back, shoulder, elbow, wrist and hand**
- **Common fractures of upper and lower limbs including principles of treatment**
- **Compartment syndrome**
- **Connective tissue disorders including systemic lupus erythematosus (SLE)**
- **Gout & pseudogout**
- **Inflammatory arthropathies including rheumatoid arthritis (RA)**
- **Management of spinal injuries**
- **Metabolic bone disease e.g. Paget's, osteoporosis and Vitamin D**
- **Osteoarthritis**

- **Rehabilitation after joint replacement, fractures or severe injuries, especially spinal injuries**
- **Seronegative arthritis**

Mental health

- Alcohol and substance misuse
- Anxiety including generalised anxiety disorder, phobias, post traumatic stress disorder (PTSD) and obsessional-compulsive disorder (OCD)
- **Deliberate self harm and assessment of suicide risk**
- **Depression and anxiety related to physical health**
- **Eating disorders : anorexia and bulimia nervosa**
- Mental health problems in people with learning disabilities
- Mood (affective) disorders including depression and bipolar disorder
- Personality disorders
- Post-partum mental health disorders
- Psychoses, and schizophrenia
- Sexual dysfunction
- Somatoform disorders including somatisation and hypochondriacal disorder

Neuroscience and behaviour

- **Cerebrovascular disease including transient Ischaemic episodes (TIAs), intracerebral thrombosis and haemorrhage**
- **Cranial nerve lesions**
- **Dementias - vascular, Alzheimer's, Lewy Body**
- **Functional neurological disorders**
- Guillain Barré syndrome
- Intracranial and spinal tumours
- **Migraine**
- **Motor neurone disease**
- **Multiple sclerosis**
- **Myaesthesia gravis**
- **Myopathies**
- **Nerve root and cauda equina compression**
- Organic causes of psychiatric disorders
- **Parkinson's disease**
- **Peripheral and autonomic neuropathy**
- **Seizure disorders**
- **Spinal cord compression**

Ophthalmology

- Cataracts
- Causes of acute and gradual visual loss
- Children and the eye
- Diabetes and the eye
- Eye in systemic disease
- Glaucoma
- Neurophthalmology – diplopia, ptosis, visual field defects, pupils
- Red eye
- Screening and public health in Ophthalmology

Plastic surgery / skin

- Acne
- Benign & malignant lesions of skin and oral mucosa
- Blistering disorders
- Breast reconstruction & reduction
- Burns
- Cutaneous infections
- Cutaneous manifestations of systemic disease
- Dermatological emergencies
- Leg ulcers/ chronic venous insufficiency
- Papulosquamous disorders - eczema, psoriasis, lichen planus
- Pigment disorders
- Pressure sore

Surgical care and interventions

- **Acute abdomen**
- Benign breast disease: fibroadenoma and cyst
- Benign enlargement of the prostate
- **Bowel obstruction**
- **Causes of persistent fistulae**
- **Diagnosis & management of shock**
- **Diagnosis of postoperative pyrexia**
- **Haemorrhoids**
- **Hernias**
- **Lipoma, cysts, ganglion, inclusion dermoid, warts & moles**
- Phimosis, paraphimosis, balanitis
- Testicular problems including maldescent and torsion
- Urinary calculi: renal, ureteric & vesical

Women's health

- Abnormal menstruation
- Abortion
- Benign gynaecological conditions including: pelvic pain, endometriosis and polycystic ovarian disease
- Care of the pregnant woman and delivery of her baby and placenta
- Complications of early pregnancy, including ectopic pregnancy
- Congenital genital tract abnormalities
- Congenital infections of the newborn
- Contraception
- Drugs in pregnancy
- Foetal development – normal and abnormal
- Genital tract cancers including ovary, uterus, cervix and vulva
- Infertility and fertility
- Menopause
- Obstetric emergencies – haemorrhage, eclampsia, delivery emergencies, amniotic fluid embolism
- Medical complications of pregnancy - pre-eclampsia, gestational diabetes, cholestasis
- Urinary incontinence
- Vaginal discharge

Special situations

- Anaphylaxis and allergy
- Deprivation of liberty
- Domestic violence
- **Drug reactions**
- Health promotion
- **Major trauma**
- **Medically unexplained symptoms**
- Multiple co-morbidities, especially in the elderly
- **Pain and analgesics**
- Palliative care
- Public health disasters
- Safeguarding including child protection and female genital mutilation

Section 5: Contributing to patient notes, prescribing and data interpretation

Writing patient notes is a challenging but important skill to acquire. Patient notes are important for clearly communicating the patient's condition and management plan to a range of health professionals.

More legal actions are lost on behalf of doctors because of poor note keeping than for any other reason. You will not be believed as a defendant if you have no contemporaneous notes to support you. Each time you have the opportunity to write up case notes, look at this list of best practice and check you have written acceptable notes. Do this until keeping good case notes is well established in your mind.

Written succinct and legible notes should include:

- History of presenting complaints, past, personal, family and drug history allergies
- Patients' ideas and/or concerns and their expectations
- Written legible, ordered details of the physical examination
- Documented risks factors and the aspects of social occupational history relevant to the patient's care
- A summary, including differential diagnosis and problem lists
- On each notes entry: time and date; name, DOB and hospital number of patient; your name, signature and grade.

During Year 4, you will have opportunities to write in patients' paper notes or to make entries into clinical information systems; the electronic patient record, both in hospital and Primary Care settings. Learning how to use these systems is a key part of the Year. Take every opportunity to observe doctors entering and retrieving data in these systems, and where appropriate, and under supervision, make your own entry into written and electronic notes, observing the best practice outlined above.

Therapeutics and Prescribing

You need to ensure that you can have a solid understanding of therapeutics to begin to prescribe medicines safely. You should begin to use the British National Formulary (BNF) to enable you to do this, learn through practice how to complete a drug chart, how to complete a discharge prescription, and how to complete a prescription in general practice.

Year 4 will provide you with opportunities to develop and practise these skills. It is important however to remember that students **MUST NEVER** sign prescriptions in hospital or general practice.

- understand how drugs work, why they are prescribed and how they interact with each other (having revised previous studies in pharmacology and through Uses of Medicines Course Material in Year 4)

- take an accurate drug history, including current and past treatment and adverse reactions
- explain drug treatment to patients
- assess adherence to medication and the reasons for non-compliance with recommended drug treatments
- write prescriptions according to guidelines for prescription writing in the BNF in both primary and secondary care settings
- write prescriptions for intravenous infusions
- understand drugs commonly associated with drug interactions and how to interpret the information on drug interactions in the BNF
- become familiar with all the drugs listed in the *UCL Student Formulary*

Data Interpretation

During the course of Year 4, you will be expected to become able to identify normal results as well as correctly interpret examples of common abnormalities in radiology, all disciplines of pathology, electrocardiography and pulmonary function/blood gases.

This list is not exhaustive but will prompt you to develop your skills. Make sure you have seen plenty of x-rays, scans, ECGs and blood results.

Data Interpretation: *Imaging – Chest*

- Normal chest x-ray
- Pleural effusion
- Pneumonia
- Pulmonary oedema
- Pneumothorax
- Haemothorax
- Fractured ribs
- Pulmonary fibrosis
- Hilar mass/adenopathy
- Solitary/multiple round shadows
- Apical tuberculosis
- Pulmonary embolus
- Cardiomegaly

Data Interpretation: *Lung function/blood gases*

- Normal & reduced peak flow
- Normal & reduced vital capacity

- Complex lung function for changes to residual volume or diffusion
- Reduced arterial O₂ with or without raised CO₂
- Changes to arterial pH & CO₂

Data Interpretation: Imaging – Skeletal

- Fractures, e.g. clavicle, neck of humerus, Colles, neck of femur, femoral/tibial shaft, ankle
- Osteoporosis with vertebral collapse
- Sclerotic & lytic metastases
- Paget's disease spine/pelvis/long bone
- Spine degenerative changes
- Osteoarthritis – hip/knee
- Rheumatoid arthritis – hands
- Gout with tophus
- Nuclear scan of the skeleton

Data Interpretation: Imaging – CT/MRI Brain

- Subarachnoid haemorrhage
- Brain haemorrhage
- Cerebral infarct
- Cerebral atrophy
- Intracerebral lesion with oedema, e.g. primary secondary tumour
- Mid-line shift
- Pituitary tumour
- Extradural/subdural haematoma

Data Interpretation: *Electrocardiography*

- Sinus rhythms
- Atrial & ventricular ectopic beats
- Atrial fibrillation & flutter
- Atrial & nodal tachycardia
- Wolff-Parkinson-White (WPW) syndrome
- Ventricular tachycardia
- Ventricular fibrillation
- Atrial ventricular conduction defects
- Bundle branch blocks
- Bradyarrhythmias (heart block of varying degrees)
- Ischaemic changes

- T wave changes
- Myocardial infarction/acute coronary syndrome
- Ventricular hypertrophy
- Changes in pericarditis
- Changes in pulmonary embolus
- Screening tests for coronary artery disease
- Functional tests of coronary blood supply

Data Interpretation: *Pathological Sciences*

- Changes to red cell count & indices
- Leucocytosis/leucopenia
- Haematinics
- Thrombocytosis/thrombocytopenia
- Lengthened / therapeutic International normalised ratio (INR)
- Other clotting defects (Prothrombin time (PT), Activated Partial Thromboplastin Time (APTT))
- Raised Erythrocyte sedimentation rate (ESR) / C-reactive protein (CRP)
- Screening for haemoglobinopathies
- Common electrolyte changes, including high or low values for sodium, potassium, calcium, magnesium & phosphate
- High plasma creatinine & urea
- Disordered liver function tests for obstruction, hepatitis or haemolysis
- pH changes – acidosis or alkalosis
- Typical laboratory results in cardiovascular and pulmonary disease (including troponin T and I, D-Dimer)
- Blood glucose changes & glucose tolerance tests
- Common hormonal changes, especially thyroid, and dynamic function tests
- Changes in immunological tests in arthritis & GI disease
- Immunological changes in thyroid disease
- Viral/Immunological results in hepatitis/HIV
- Common bacterial culture results from sputum, urine, stool, blood & cerebrospinal fluid (CSF)
- Aminoglycoside levels
- Therapeutic drug monitoring

Data Interpretation: *Pathology*

You will be expected to:

- Demonstrate your knowledge of gross anatomical changes visible to the naked eye for common major pathologies and to identify them in pictures or pots
- Recognise the histological changes in common major pathologies

- Explain the causal and other links between the gross pathology and histopathology on the one hand and the patient's symptoms, signs and prognosis on the other

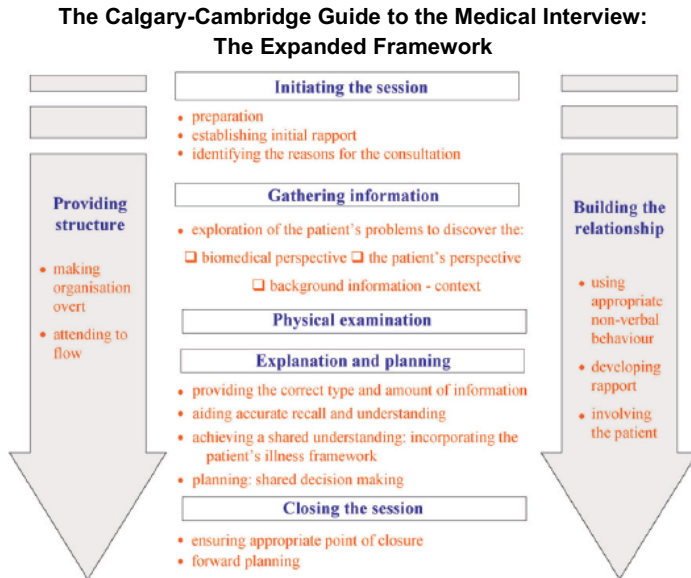
Information technology

You will be expected to use (and understand the limitations of)

- Hospital medical records (paper/ electronic)
- GP electronic records and patient summaries (drugs/ allergies/ PMH)
- Referral letters / Discharge summaries as key methods of communication between 1y and 2y care
- An awareness of the NHS spine and summary care record
- Develop an awareness of security of patients confidential medical records (in whatever format)

Section 6: Professional Skills – communication skills

Eliciting a flexible, patient centred medical history is the fundamental task of professional communication in medicine. By now you should have polished all the elements of this process. However, history taking skills form only a small part of the set of communication skills you need. Each medical consultation also includes some explaining, negotiating and planning.



SM Kurtz and JD Silverman

A full range of communication skills is a key tool in clinical medicine and will be put to the test in your final MBBS and everyday as a Foundation Year 1 doctor. Below is a checklist of the areas you will need to develop over the next year during your attachments. You may only get to watch some of these skills in use while another professional practises but many you should try to do yourself, with support if appropriate, or in role play with peers.

Remember to practise explaining, negotiating and shared decision making as this will help you commit to a hypothesis or diagnosis and force you think about management planning. Try to get feedback on your skills from patients, peers and practising health professionals.

Communication skills checklist

Take a medical history in a flexible but focused and organised manner

- Agree a problem list or diagnosis with a patient
- Explain an illness/management plan to a patient/their family & to reach agreement with them
- Explain tests to patients (MSU, FOB, endoscopy)
- Explain use of medicines to a patient (MDI, Steroids, insulin, warfarin)
- Demonstrate the skills of shared decision making and negotiation
- Explain discharge arrangements to a patient/family

Handover a patient to a colleague

Present a case to an audience

- Use basic audio visual techniques effectively
- Present a topic verbally or by poster display

Teaching and feedback skills

- Teach a student a basic skill
- Give constructive feedback to a colleague or junior

Under supervision:

- Communicate effectively with a GP or hospital doctor on the phone
- Communicate with: a distressed patient/family
- Communicate with a deaf person
- Communicate with a person with learning difficulties
- Communicate with a person using English as a 2nd language with or without an interpreter
- Communicate about sensitive issues including prognosis, risk & uncertainty
- Break unwelcome/bad news
- Deal with complaints & conflicts

Section 7: Staff contact details

| MBBS Management contacts | | |
|---|--|--|
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| Academic Lead for Module B | Mr Adrian O’Gorman | via Zoe Lau, Module B Manager |
| Academic Lead for Module C | Prof David Wheeler | via Thameenah Hamid, Module C Manager |
| Module Teaching Administrators | | |
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| Absence reporting | | |
| Please report all absences using the Online Absence Reporting and Leave Request form on Moodle. | | |

