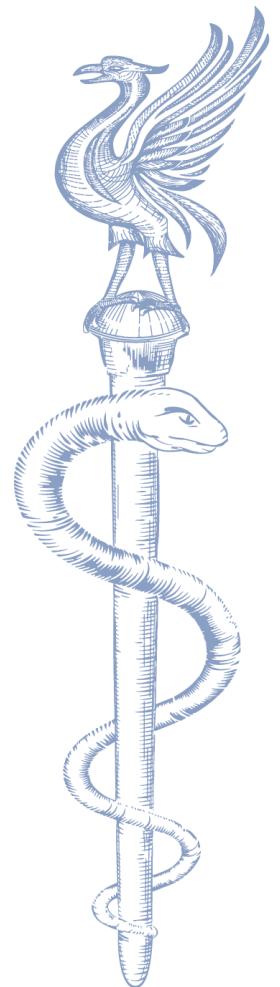




# Year 4 MBChB Curriculum Document.

School of Medicine.

2023-2024.



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## 1. Introduction.

This document provides an overview of the Year 4 curriculum content. It is to be used alongside the MBChB Programme Learning Outcomes and the Year 4 MBChB Placement E-portfolio Requirements Document, which sets out the expected learning and e-portfolio requirements for each clinical placement. Year 4 enables Student Doctors to learn about the clinical specialities and to build upon the clinical knowledge and skills that they acquired in Year 3. For further information and to access the learning resources in this document, please refer to Year 4 Canvas (Virtual Learning Environment).

Year 4 is comprised of seven 4-week clinical rotations (CRs):

- General Practice B.
- Medicine C: Geriatric Medicine, Renal and Rheumatology.
- Medicine D: Palliative Medicine and Oncology & Haemato-oncology.
- Neurology (including neurosurgery).
- Obstetrics & Gynaecology B and Paediatrics B.
- Psychiatry A (including Child & Adolescent Psychiatry).
- Surgery C: Paediatric Head & Neck (ENT), Adult Head & Neck (OMFS), Ophthalmology and Plastic Surgery.

Student Doctors are expected to achieve the e-portfolio requirements for each CR/placement. Placement learning is supported by formal teaching sessions, which include Case Based Learning (CBL), Clinical Skills, Safe Prescribing, Disability & Care in the Community, Communication for Clinical Practice (CCP) and Community Clinical Teaching (CCT) sessions.

Each CR is preceded by an Academic Week (AW). Each AW is intended to prepare Student Doctors for their upcoming CRs and contains:

- On-campus induction and information seminars.
- Community Clinical Teaching (CCT).
- Pre-placement Primers.
- Clinical Skills and Simulation sessions.
- “Science of Medicine” and “Good Doctor” lectures and workshops: Design & Technology in Healthcare, Personalised Medicine & Genetics, Professionalism, Ethics & Legal Context (PEL), Public, Preventative & Global Health (PPGH) and Psychology & Sociology as applied to Medicine (PSM).
- Clinical placement online lectures.

Student Doctors will also complete a 4-week elective placement after their Assessments for Progression (AFP).

All Year 4 content can be included in assessment, in addition to content from previous academic years.

## 2. General Practice B Placement.

4-week placement of General Practice.

At the end of this placement Student Doctors will be able to:

- Write a prescription, either handwritten or electronically in the primary care setting, recognising the benefits and limitations of electronic prescribing support tools. .
- Be able to record salient features from consultations in the patient's electronic medical records including history, examination, management including clinical decision making and safety netting.
- Appreciate the importance of adequate record keeping for communication and medico legal purposes).
- Recognise the importance of integrated care across health and social care settings (from secondary to primary care) and the subsequent impact this has on the individual patient journey.
- Discuss ethical issues arising in a primary care setting, including capacity, consent and safeguarding.
- Demonstrate the ability to assess a patient's capacity to make decision about their care in the primary care setting and involve carers and relatives appropriately.
- Acquire the skills to manage patients approaching the end of life in the community setting and recognise the role of other health and social care providers.
- Recognise when patients in the community setting are approaching end of life and the importance of implementing anticipatory care including DNAR and EHCP.
- Understand the importance of communication between secondary, primary and urgent care services in decisions about end of life care and health care plans.
- Understand the challenges when communicating diagnosis and management of end of life care with patients, relatives and carers in the community.
- Develop an understanding of the clinical governance processes in place in primary care including significant event review and quality improvement.

Student Doctors are expected to achieve the e-portfolio requirements for this placement. The formal teaching for this placement (delivered during the placement and academic weeks) is listed below:

Session	Information
<b>Pre-Placement Primer</b>	<ul style="list-style-type: none"> <li>• An introduction the Year 4 GP placement.</li> <li>• The patient centered consultation style.</li> <li>• Patient's electronic medical records keeping.</li> </ul>
<b>Pre-Placement CCT</b>	<ul style="list-style-type: none"> <li>• Medical Complexity.</li> </ul>
<b>Placement CCT</b>	<ul style="list-style-type: none"> <li>• Week 1: Joint Problems in Primary Care.</li> <li>• Week 2: Palliative Care in the Community.</li> <li>• Week 3: Complex Conversations in Primary Care.</li> <li>• Week 4: Interpreting Results in Primary Care.</li> </ul>

**Online lectures to watch in the Academic Week prior to commencing this placement:**

- Acutely Ill Patient: Anaphylaxis.
- PTP: Clinical Pharmacology 7 - What do Patients Want to Know About Medicines?
- PEL: Duty of Candour.
- PPGH: Financing Healthcare.
- PPGH: Contemporary Issues in UK Public Health.
- Personalised Medicine & Genetics: Precision Public Health.
- Design & Technology in Healthcare 1: Telemedicine, Augmented Reality & Virtual Reality; mHealth & Healthcare Apps.

### 3. Medicine C Placement.

4-week placement of Geriatric Medicine, Renal & Rheumatology.

At the end of this placement Student Doctors will be able to:

- Take a history from patients presenting with a variety of geriatric, renal and rheumatological conditions or symptoms.
- Perform a formal assessment of cognitive abilities e.g. MoCA or Addenbrooke's Cognitive Examination.
- Perform a patient risk assessment and know the procedure for raising patient safety and safeguarding concerns.
- Examine patients presenting with a variety of geriatric, renal and rheumatological conditions or symptoms and be able to recognise the indications for emergency management.
- Formulate differential diagnoses, select investigations and discuss the acute and longer-term management (non-prescribing, prescribing and surgical) for patients presenting with a variety of conditions and symptoms, referring to the suggested cases listed in the Placement E-portfolio Requirements Document.
- Understand the consent process and apply principles of capacity.
- Describe and perform a variety of clinical procedures, referring to the suggested procedures listed in the Placement E-portfolio Requirements Document.
- Describe common investigative procedures involved in patient management.
- Understand the roles of the members of multi-disciplinary team.
- Describe the patient journey from admission to discharge into a community setting, including the provision of any ongoing care.
- Communicate effectively with patients, family members and their carers, providing explanation and information in a way they can understand.
- Appreciate the psycho-social impact of a medical condition on the patient and their family members or carers.
- Develop professional values and understand the legal frameworks of practice.

Student Doctors are expected to achieve the e-portfolio requirements for this placement. The formal teaching for this placement (delivered during the placement and academic weeks) is listed below:

Session	Information
<b>Pre-Placement Session</b>	<p><b>Geriatric Medicine:</b></p> <ul style="list-style-type: none"> <li>• What is "Geriatrics" and why it exists.</li> <li>• Effects of the ageing population on our understanding of older people's medicine.</li> <li>• Acute medical problems in geriatrics including frailty syndromes, multi-morbidity, stroke.</li> </ul> <p><b>Rheumatology:</b></p> <ul style="list-style-type: none"> <li>• What is Rheumatology?</li> <li>• Assessing the patient with a rheumatological condition.</li> </ul> <p><b>Renal:</b></p>

Session	Information
	<ul style="list-style-type: none"> <li>• Definitions of Chronic Kidney Disease (CKD).</li> <li>• Types of Acute Kidney Injury (AKI).</li> <li>• Urinalysis.</li> <li>• Renal Replacement Therapies (RRT).</li> <li>• Assessment of fluid status: fluid overload and dehydration.</li> </ul>
<b>Pre-Placement CCT</b>	<ul style="list-style-type: none"> <li>• The Elderly Patient.</li> </ul>
<b>CBLs</b>	<ul style="list-style-type: none"> <li>• CBL1: Cerebrovascular Disease.</li> <li>• CBL2: Falls in Older People.</li> <li>• CBL3: Delirium &amp; Acute Confusion.</li> <li>• CBL4: Rheumatology &amp; Renal: Rheumatology and Renal: Nephrotic v. Nephritic syndromes and The Hot Joint.</li> </ul>
<b>Placement Clinical Skills</b>	<ul style="list-style-type: none"> <li>• Trust Simulation Training.</li> </ul>
<b>Safe Prescribing</b>	<ul style="list-style-type: none"> <li>• Medicine C Safe Prescribing Session.</li> </ul>
<b>Disability &amp; Care in the Community</b>	<ul style="list-style-type: none"> <li>• Stroke Awareness Workshop.</li> </ul>

**Online lectures to watch in the Academic Week prior to commencing this placement:**

- Geriatric Medicine: Comprehensive Geriatric Assessment & Frailty.
- Pathology: Pathology in the Elderly.
- PTP: Clinical Pharmacology 5 - Prescribing in the Elderly.
- PTP: Clinical Pharmacology 6 - Polypharmacy & Deprescribing.
- Renal: The Patient with Glomerular Disease.
- Renal: Renal Manifestations of Systemic Diseases.
- Pathology: The Pathology of Acute & Chronic Renal Failure.
- Pharmacology: Clinical Pharmacology 1 - Prescribing in Renal & Hepatic Failure.
- Rheumatology: Inflammatory Arthritis.
- Rheumatology: Autoimmune Connective Tissue Diseases & Vasculitis.



## 4. Medicine D Placement.

2-week placement of Palliative Medicine. 2-week placement of Oncology & Haemato-oncology.

At the end of this placement Student Doctors will be able to:

- Take a history from patients presenting with a variety of palliative, oncological and haemato-oncological conditions or symptoms.
- Examine patients presenting with a variety of palliative, oncological and haemato-oncological conditions or symptoms and be able to recognise the indications for emergency management.
- Formulate differential diagnoses, select investigations (where appropriate) and discuss the acute, longer-term and end of life care management (non-prescribing and prescribing) for patients presenting with a variety of conditions and symptoms, referring to the suggested cases listed in the Placement E-portfolio Requirements Document.
- Understand the consent process and apply principles of capacity.
- Describe and perform a variety of clinical procedures, referring to the suggested procedures listed in the Placement E-portfolio Requirements Document.
- Understand the roles of the members of multi-disciplinary team.
- Describe the patient journey from admission to end of life, or discharge into a community setting including the provision of any ongoing care.
- Communicate effectively with patients, family members and their carers (including discussion about end of life care), providing explanation and information in a way they can understand.
- Appreciate the psycho-social impact of a medical condition (including a terminal diagnosis) on the patient and their family members or carers.
- Develop professional values and understand the legal frameworks of practice.

Student Doctors are expected to achieve the e-portfolio requirements for this placement. The formal teaching for this placement (delivered during the placement and academic weeks) is listed below:

Session	Information
<b>Pre-Placement Primer</b>	<p><b>Palliative Medicine:</b></p> <ul style="list-style-type: none"> <li>• Specialist Palliative Medicine History Taking and Examination.</li> </ul> <p><b>Oncology:</b></p> <ul style="list-style-type: none"> <li>• An Introduction to Oncology: Key areas and top tips.</li> </ul> <p><b>Haemato-oncology:</b></p> <ul style="list-style-type: none"> <li>• Clinical Aspects of Blood Cancer.</li> </ul>
<b>Pre-Placement CCT</b>	<ul style="list-style-type: none"> <li>• The Patient with Cancer in Primary Care.</li> </ul>
<b>CBLs</b>	<ul style="list-style-type: none"> <li>• CBL1: Symptom Control in Palliative Patients.</li> <li>• CBL2: Managing a Dying Patient.</li> <li>• CBL3: Solid Tumours.</li> <li>• CBL4: Haemato-oncology.</li> </ul>

Session	Information
<b>Placement Clinical Skills</b>	<ul style="list-style-type: none"> <li>• Verification &amp; Certification of Death.</li> <li>• Use of Syringe Drivers.</li> </ul>
<b>CCP</b>	<ul style="list-style-type: none"> <li>• 3 x Communication for Clinical Practice Sessions in Palliative &amp; End of Life Care.</li> </ul>

**Online lectures to watch in the Academic Week prior to commencing this placement:**

- Palliative Medicine: An Introduction to Palliative Care
- Palliative Medicine: Euthanasia & Physician Assisted Suicide.
- Palliative Medicine: End of Life Decision Making.
- Oncology: Oncological Emergencies (delivered during oncology placement).
- Oncology: Radiotherapy.
- Oncology: Cancer Survivorship.
- Haematology: Making Sense of the Full Blood Count.
- Haematology: De-mystifying Blood Cancer.
- Pathology: Carcinoma of Unknown Primary.
- Biochemistry: Tumour Markers.
- PTP: Oncology 1 - Chemotherapeutic Agents.
- PTP: Oncology 2 - Biological Therapies.
- PSM: Death & Dying.

## 5. Neurology Placement.

4-week placement of Neurology and Neurosurgery.

At the end of this placement Student Doctors will be able to:

- Take a history from patients presenting with a variety of neurological and neurosurgical conditions or symptoms.
- Examine patients presenting with a variety neurological and neurosurgical conditions or symptoms and be able to recognise the indications for emergency management.
- Formulate differential diagnoses, select investigations and discuss the acute and longer-term management (non-prescribing, prescribing and surgical) for patients presenting with a variety of conditions and symptoms, referring to the suggested cases listed in the Placement E-portfolio Requirements Document.
- Understand the consent process and apply principles of capacity.
- Describe and perform a variety of clinical procedures, referring to the suggested procedures listed in the Placement E-portfolio Requirements Document.
- Describe common investigative and surgical procedures involved in patient management.
- Understand the roles of the members of multi-disciplinary team.
- Describe the patient journey from admission to discharge into a community setting, including the provision of any ongoing care.
- Communicate effectively with patients, family members and their carers, providing explanation and information in a way they can understand.
- Appreciate the psycho-social impact of a medical condition on the patient and their family members or carers.
- Develop professional values and understand the legal frameworks of practice.

Student Doctors are expected to achieve the e-portfolio requirements for this placement. The formal teaching for this placement (delivered during the placement and academic weeks) is listed below:

Session	Information
<b>Pre-Placement Primer</b>	<ul style="list-style-type: none"> <li>• Neurology Quiz: summary of Year 1 &amp; 2 content.</li> <li>• Key Neurology Cases including history taking, examination and interpretation of findings.</li> </ul>
<b>Pre-Placement CCT</b>	<ul style="list-style-type: none"> <li>• The Patient in Pain.</li> </ul>
<b>CBLs</b>	<ul style="list-style-type: none"> <li>• CBL1: Status Epilepticus.</li> <li>• CBL2: Neuromuscular Disease &amp; Neurorehabilitation.</li> <li>• CBL3: Intracranial Haemorrhage.</li> <li>• CBL4: Neurotrauma - Traumatic Brain Injury (TBI).</li> </ul>
<b>Placement Clinical Skills</b>	<ul style="list-style-type: none"> <li>• Revision of the Neurological Examination.</li> </ul>

Session	Information
<b>Safe Prescribing</b>	<ul style="list-style-type: none"><li>• Neurology Safe Prescribing Session.</li></ul>
<b>Disability &amp; Care in the Community</b>	<ul style="list-style-type: none"><li>• Living with a Long-Term Disability Workshop.</li><li>• Parkinson's Awareness Workshop.</li></ul>

**Online lectures to watch in the Academic Week prior to commencing this placement:**

- Neurology: Multiple Sclerosis.
- Neurology: Parkinson's Disease.
- Neurology: Epilepsy.
- Neurology: Migraine.
- Neurology: Encephalitis.
- Neurosurgery: Brain Tumour.
- Neurosurgery: Spinal disease.
- Acutely Ill Patient: The Unconscious Patient.
- Pathology: Neuropathology.
- PTP: Neuropharmacology 3 - Movement Disorders.
- PTP: Neuropharmacology 5 - Seizures.

## 6. Obstetrics & Gynaecology B and Paediatrics B Placement.

2-week placement of Obstetrics & Gynaecology specialities. 2-week placement of Paediatric specialities and Paediatric Emergency Medicine.

At the end of this placement Student Doctors will be able to:

- Take a history from patients presenting with a variety of obstetric & gynaecological conditions or symptoms.
- Take a history from children (or their parents or carers) presenting with a variety of paediatric conditions or symptoms.
- Examine patients presenting with a variety of obstetric & gynaecological conditions or symptoms and be able to recognise the indications for emergency management.
- Examine children of varying ages presenting with a variety of paediatric conditions or symptoms and be able to recognise the indications for emergency management.
- Formulate differential diagnoses, select investigations and discuss the acute and longer-term management (non-prescribing, prescribing and surgical) for patients presenting with a variety of conditions and symptoms, referring to the suggested cases listed in the Placement E-portfolio Requirements Document.
- Understand the consent process and apply principles of capacity.
- Perform a patient risk assessment and know the procedure for raising patient safety and safeguarding concerns.
- Describe and perform a variety of clinical procedures, referring to the suggested procedures listed in the Placement E-portfolio Requirements Document.
- Describe common investigative and surgical procedures involved in patient management.
- Understand the roles of the members of multi-disciplinary team.
- Describe the patient journey from admission to discharge into a community setting, including the provision of any ongoing care.
- Communicate effectively with patients, family members and their carers, providing explanation and information in a way they can understand.
- Appreciate the psycho-social impact of a medical condition on the patient and their family members or carers.
- Develop professional values and understand the legal frameworks of practice.

Student Doctors are expected to achieve the e-portfolio requirements for this placement. The formal teaching for this placement (delivered during the placement and academic weeks) is listed below:

Session	Information
<b>Pre-Placement Primer</b>	<p><b>Obstetrics &amp; Gynaecology:</b></p> <ul style="list-style-type: none"> <li>• High risk pregnancy &amp; intrapartum care.</li> <li>• Early pregnancy complications.</li> <li>• Termination of Pregnancy (TOP).</li> </ul> <p><b>Paediatrics:</b></p> <ul style="list-style-type: none"> <li>• Safeguarding children is everyone's responsibility.</li> <li>• Managing young people with complex needs.</li> <li>• Child poverty, the start (and end) of health inequalities.</li> </ul>

Session	Information
<b>Pre-Placement CCT</b>	<ul style="list-style-type: none"> <li>Women and Child Health in the Community.</li> </ul>
<b>CBLs</b>	<ul style="list-style-type: none"> <li>CBL1: High Risk Pregnancy &amp; Delivery.</li> <li>CBL2: Fertility.</li> <li>CBL3: Paediatric Rheumatology &amp; Haematology.</li> <li>CBL4: Paediatric Neurology &amp; End of Life Challenges.</li> </ul>
<b>Placement Clinical Skills</b>	<ul style="list-style-type: none"> <li>Paediatric BLS.</li> </ul>
<b>Safe Prescribing</b>	<ul style="list-style-type: none"> <li>Obstetrics &amp; Gynaecology B Safe Prescribing Session.</li> <li>Paediatrics B Safe Prescribing Session.</li> </ul>

**Online lectures to watch in the Academic Week prior to commencing this placement:**

- Obstetrics & Gynaecology: Fetal Medicine.
- Obstetrics & Gynaecology: Gynaecological Oncology.
- Obstetrics & Gynaecology: Urogynaecological.
- Sexual Health: Male & Female Presentations of STIs.
- PTP: Clinical Pharmacology 3 - Prescribing Safely in Pregnancy.
- Pathology: Tumours of the Female Reproductive Tract.
- Paediatrics: The Impact of Poverty on the Health of Children.
- Paediatrics: Molecular Therapy for a Genetic Condition; Future & Past Reflections on Cystic Fibrosis.
- Paediatrics: Life in a Busy Paediatric A&E Department; how to get the most from your placement.
- Paediatrics: Paediatric Endocrinology.
- PTP: Clinical Pharmacology 4 - Prescribing for Children.

## 7. Psychiatry A Placement.

4-week placement of Psychiatry based on a General Adult Inpatient ward setting. There will be opportunities to gain experience of Child & Adolescent Psychiatry, Older Adult Psychiatry and Community General Adult Psychiatry.

At the end of this placement Student Doctors will be able to:

- Take a history from patients presenting with a variety of psychiatric conditions or symptoms.
- Perform a formal assessment of cognitive abilities e.g. MoCA or Addenbrooke's Cognitive Examination.
- Perform a Mental State Examination and recognise the indications for emergency management.
- Perform a patient risk assessment and know the procedure for raising patient safety and safeguarding concerns.
- Formulate differential diagnoses, select investigations (where appropriate) and discuss the acute and longer-term management (non-prescribing and prescribing) for patients presenting with a variety of conditions and symptoms, referring to the suggested cases listed in the Placement E-portfolio Requirements Document.
- Understand the consent process and apply principles of capacity.
- Understand the roles of the members of multi-disciplinary team.
- Describe the patient journey from admission to discharge into a community setting, including the provision of any ongoing care.
- Communicate effectively with patients, family members and their carers, providing explanation and information in a way they can understand.
- Appreciate the psycho-social impact of a medical condition on the patient and their family members or carers.
- Develop professional values and understand the legal frameworks of practice.

Student Doctors are expected to achieve the e-portfolio requirements for this placement. The formal teaching for this placement (delivered during the placement and academic weeks) is listed below:

Session	Information
<b>Pre-Placement Primer</b>	<b>Adult Psychiatry:</b> <ul style="list-style-type: none"> <li>• History taking in psychiatry and mental state examination.</li> <li>• Introduction to psychopathology.</li> <li>• Risk assessment in psychiatry and maintaining personal safety on the ward.</li> </ul> <b>Child &amp; Adolescent Psychiatry:</b> Introduction to child & adolescent mental health (CAMH).
<b>Pre-Placement CCT</b>	<ul style="list-style-type: none"> <li>• Common Mental Health Problems in Primary Care.</li> </ul>
<b>CBLs</b>	<ul style="list-style-type: none"> <li>• CBL1: Psychosis &amp; Schizophrenia.</li> <li>• CBL2: Mood Disorders.</li> </ul>

Session	Information
	<ul style="list-style-type: none"> <li>• CBL3: Personality Disorders, with a Focus on Emotionally Unstable Personality Disorder.</li> <li>• CBL4: Challenging Behaviour in Psychiatry of Intellectual Disability.</li> <li>• CBL5: Trauma, Attachment &amp; Autistic Spectrum Disorder.</li> </ul>
<b>Safe Prescribing</b>	<ul style="list-style-type: none"> <li>• Psychiatry A Safe Prescribing Session.</li> </ul>
<b>Disability &amp; Care in the Community</b>	<ul style="list-style-type: none"> <li>• Intellectual Disability Awareness Day.</li> </ul>

**\*Also to complete mandatory training (E-learning) on Learning Disability & Autism. See E e-portfolio for details.**

**Online lectures to watch in the Academic Week prior to commencing this placement:**

- Psychiatry: A Patient's Journey Through Mental Health Services.
- Psychiatry: An Introduction to Perinatal Psychiatry - Postpartum Depression & Puerperal Psychosis.
- Psychiatry: Anxiety & Stress-related Disorders.
- Psychiatry: Alcohol & Illicit Substance Misuse.
- Psychiatry: Dementia.
- Child & Adolescent Psychiatry: An Introduction to Child & Adolescent Psychiatry.
- PTP: Neuropharmacology 1 - Common Neurotransmitter/Receptor Targets.
- PTP: Neuropharmacology 2 - Antipsychotics & Anxiolytics.
- PTP: Neuropharmacology 4 - Antidepressants & Mood Stabilisers.
- PPGH: Reaching the Unreached: Delivering 'Talking Therapies' for Mental Health in Low & Middle-income Countries.
- PSM: Addiction & Dependence.



## 8. Surgery C Placement.

Four 1-week placements of: Paediatric Head & Neck (ENT), Adult Head & Neck (OMFS), Ophthalmology and Plastic Surgery.

At the end of this placement Student Doctors will be able to:

- Take a history from patients presenting with a variety of head & neck, ophthalmology and plastic surgery conditions or symptoms.
- Examine patients presenting with a variety of head & neck, ophthalmology and plastic surgery conditions or symptoms and be able to recognise the indications for emergency management.
- Formulate differential diagnoses, select investigations and discuss the acute and longer-term management (non-prescribing, prescribing and surgical) for patients presenting with a variety of conditions and symptoms, referring to the suggested cases listed in the Placement E-portfolio Requirements Document.
- Understand the consent process and apply principles of capacity.
- Describe and perform a variety of clinical procedures, referring to the suggested procedures listed in the Placement E-portfolio Requirements Document.
- Describe common investigative and surgical procedures involved in patient management.
- Understand the roles of the members of multi-disciplinary team.
- Describe the patient journey from admission to discharge into a community setting, including the provision of any ongoing care.
- Communicate effectively with patients, family members and their carers, providing explanation and information in a way they can understand.
- Appreciate the psycho-social impact of a medical condition on the patient and their family members or carers.
- Develop professional values and understand the legal frameworks of practice.

Student Doctors are expected to achieve the e-portfolio requirements for this placement. The formal teaching for this placement (delivered during the placement and academic weeks) is listed below:

Session	Information
<b>Pre-Placement Session</b>	<p><b>Adult Head &amp; Neck:</b></p> <ul style="list-style-type: none"> <li>• Introduction to Oral Maxillofacial Surgery &amp; Adult ENT.</li> </ul> <p><b>Paediatric Head &amp; Neck:</b></p> <ul style="list-style-type: none"> <li>• Introduction to ENT in children.</li> </ul> <p><b>Plastic Surgery:</b></p> <ul style="list-style-type: none"> <li>• Introduction to Burns and Plastic surgery.</li> </ul> <p><b>Ophthalmology:</b></p> <ul style="list-style-type: none"> <li>• Common things occur commonly: linking anatomy, physiology, and optics to common eye problems.</li> </ul>
<b>Pre-Placement CCT</b>	<ul style="list-style-type: none"> <li>• Eyes and Ears in Primary Care.</li> </ul>
<b>CBLs</b>	<ul style="list-style-type: none"> <li>• CBL1: Adult Head &amp; Neck Cancers.</li> </ul>

Session	Information
	<ul style="list-style-type: none"> <li>• CBL2: Paediatric ENT.</li> <li>• CBL3: Burn Injury.</li> <li>• CBL4: Critical Care in Ophthalmology.</li> </ul>
<b>Disability &amp; Care in the Community</b>	<ul style="list-style-type: none"> <li>• Visual Awareness Workshop.</li> <li>• Deaf Awareness Workshop.</li> </ul>

### Online lectures to watch in the Academic Week prior to commencing this placement:

- ENT: Essential Adult ENT.
- ENT: Common Paediatric ENT.
- Oral & Maxillofacial Surgery: Facial Trauma & Oro-facial Infection.
- Oral & Maxillofacial Surgery: Head & Neck Cancer.
- Ophthalmology: The Eye in Systemic Disease.
- Ophthalmology: Primary Care Problems in Secondary Care - What do we do?
- Plastic Surgery: Burns & Plastic Surgery Emergencies.
- Plastic Surgery: The Reconstructive Ladder - Using Surgery to get Wounds to Heal.
- Design & Technology in Healthcare 2: Medical & Surgical Robotics; Additive Manufacturing.
- Design & Technology in Healthcare 3: Advanced Materials & Nanotechnology.

## 9. Elective Placement.

4-week placement at the end of Year 4. Student Doctors will gain experience in an approved placement, topic or experience, chosen and arranged by themselves.

Placement aims:

- Broaden undergraduate education.
- Provide an opportunity to gain experience outside the Northwest region.
- Provide an opportunity to experience specialities and disciplines (old or new) in greater depth.
- Encourage study in a different cultural, environmental and social sphere, which may be outside the United Kingdom.
- Provide an opportunity to undertake an original research project.

## 10. Case Based Learning (CBLs).

Sessions delivered during Clinical Placements.

### 10.1 Medicine C CBLs.

#### **CBL1: Cerebrovascular Disease.**

- Recognise and classify a stroke.
- Describe the short and longer-term management of an acute stroke patient.
- Understand the role of hyper-acute treatment in stroke.
- Recognise and describe the management a deteriorating stroke patient.
- Recognise, manage and appropriately refer a patient presenting with a TIA.

#### **CBL2: Falls in Older People.**

- What are falls, why are they different in older (frail) people?
- How to assess someone with a fall.
- Who is at higher risk?
- Management of falls.
- An approach to falls during a hospital admission.

#### **CBL3: Delirium & Acute Confusion.**

- What is delirium and why is it important?
- How to recognise delirium.
- Causes of delirium and who is at higher risk.
- Management of delirium.
- An approach to delirium in hospital admission.
- Understanding of the Mental Capacity Act 2005.

#### **CBL4: Rheumatology & Renal: Rheumatology and Renal: Nephrotic v. Nephritic syndromes and The Hot Joint.**

- Describe the differences between nephrotic and nephritic syndromes.
- Describe the pattern of glomerular injury in nephrotic and nephritic syndromes.
- Describe the clinical features and complications of nephrotic syndrome.
- Explain the common causes of nephrotic syndrome.
- Understand the treatment of nephrotic syndrome.
- Describe clinical patterns of arthritis and relate these to differential diagnoses.
- Formulate a differential diagnosis and management plan for a patient presenting with an acute monoarthritis, including relevant investigations.
- Understand the management of rheumatoid arthritis in the acute setting.

## 10.2 Medicine D CBLs.

### **CBL1: Symptom Control in Palliative Patients.**

- Be able to describe the principles of symptom control
- Be able to explain the WHO analgesic ladder
- Understand how to prescribe opioid medication, including the concept of background and breakthrough pain
- Understand how to titrate an opioid medication and what influences how to choose a particular drug. And change between differing opioids.
- Understand the side effects of opioid medications and understand the principles of managing opioid toxicity
- Be able to counsel a patient who is going to commence opioids for the first time
- Be able to discuss the aetiology of nausea and vomiting and which antiemetics to prescribe to manage the symptom
- Be able to diagnose and manage constipation in palliative patients.

### **CBL2: Managing a Dying Patient.**

- Be aware of symptoms and signs suggesting a patient may be entering the last days of life.
- Understand that patients at the end of their life require individualised care plans and how these can be responsive to personal needs
- Describe the common symptoms experienced during the dying phase and how to manage them.
- Have knowledge of anticipatory prescribing.
- Identify the indications to use a continuous subcutaneous infusion and how to convert medication from oral to the subcutaneous route.
- Discuss how to carry out verification of death.
- Explain the reasons to refer a death to the coroner and the role of the medical examiner in death certification, and complete a death certificate and cremation documentation.

### **CBL3: Solid Tumours.**

- Be aware of the clinical presentation and staging of Hodgkin lymphoma.
- Be aware of treatment goals in and the management of Hodgkin lymphoma.
- Be aware of the short- and long-term physical, and psychosocial impacts of Hodgkin lymphoma and its treatment in a young person, and how these impacts can be mitigated.
- Be aware of the clinical presentation and complications of multiple myeloma.
- Be aware of treatment goals and management principles of myeloma.
- Be aware of the short- and long-term physical, and psychosocial impacts of myeloma and how these impacts can be mitigated.

### **CBL4: Haemato-oncology.**

- TBC.

### 10.3 Neurology CBLs.

#### **CBL1: Status Epilepticus.**

- Diagnose patients presenting to the Emergency Department with convulsive movements.
- Be able to assess and manage possible non-epileptic attack disorder (NEAD).
- Be able to manage acute generalised convulsive status epilepticus (GCSE).

#### **CBL2: Neuromuscular Disease & Neurorehabilitation.**

- Define the clinico-anatomical principles relevant in diagnosis of patients with impaired neurological function in four limbs.
- List the key clinical features of Guillain-Barré syndrome (GBS) and principles of its initial management.
- List the investigations undertaken in GBS presentations, their value and their limitations.
- Explain the roles involved in rehabilitation of patients following GBS or similar illnesses.

#### **CBL 3: Intracranial Haemorrhage.**

- Review clinical presentation and assessment of intracranial haemorrhages.
- Review anatomy and radiological appearances.
- Understand pathophysiology and treatment rationales.
- Be aware of the global management of a neurologically impaired patient.

#### **CBL 4: Neurotrauma - Traumatic Brain Injury (TBI).**

- Review the clinical presentation of and assessment of cranial neurotrauma.
- Review anatomy and radiological appearances.
- Understand pathophysiology and treatment rationales.
- Be aware of the key long-term sequelae of neurotrauma.

### 10.4 Obstetrics & Gynaecology B and Paediatrics B CBLs.

#### **CBL1: High Risk Pregnancy & Delivery.**

- Understand the principles of management of a high-risk pregnancy and the roles of the MDT within this.
- Understand common labour ward emergency scenarios e.g. antepartum haemorrhage.
- Understand the management of in utero fetal death (stillbirth).
- Understand the management of fetal growth problems and reduced fetal movements.
- Understand consent and safeguarding processes and issues in obstetrics.

**CBL2: Fertility.**

- Be aware of the incidence of subfertility.
- Be able to take a sexual health history.
- Understand initial investigations for subfertility in the woman.
- Describe normal semen analysis.
- Be aware of the ethical and legal issues around fertility treatment.

**CBL3: CBL1: Paediatric Rheumatology & Haematology.**

- Generate a differential diagnosis for acquired impairment of musculoskeletal (MSK) function in children, including presentation with a limp.
- Identify circumstances where MSK symptoms may indicate serious pathology (red flags) and when to seek specialist referral (orthopaedics, general paediatrics, paediatric neurology, paediatric rheumatology, paediatric oncology)
- Understand the role of a multi-disciplinary team to support children with chronic conditions.
- Identify the important features of a history and examination in the assessment of bruising or bleeding in children.
- Recognise that there is a range of normality with respect to bruising, when and how to investigate (understand the blood clotting cascade).

**CBL4: Paediatric Neurology & End of Life Challenges.**

- Understand the causes of muscle weakness in an infant, and how to assess muscle weakness in children generally.
- Recognise the capacity to support ventilation in small children, when this is appropriate and how to do it.
- Consider the impact on the family of sustaining home ventilatory support for a small child; the importance of the multi-disciplinary team.
- Understand the reasons why this should be considered in some children and the importance of partnership working with the family and clear communication.
- Understand the ethical principles that inform end-of-life decision making in the Paediatric situation, in particular the issues around autonomy and self-determination.

**10.5 Psychiatry A CBLs.****CBL1: Psychosis & Schizophrenia.**

- Be aware of the epidemiology and the aetiology of schizophrenia.
- Describe the diagnostic criteria for schizophrenia, clinical features of schizophrenia and the different types of schizophrenia.

- Describe the differential diagnoses of schizophrenia and other causes of psychosis.
- Understand different treatment options (pharmacological and non-pharmacological) for schizophrenia and any associated side effects of antipsychotic medication and any monitoring required.
- Be aware of the outcome and prognosis of schizophrenia (including the impact on the patient and their family).

**CBL2: Mood Disorders.**

- Be aware of the epidemiology and aetiology of depression.
- Describe the clinical features of a depressive episode and know how to classify the severity of a depressive episode (mild, moderate and severe).
- Be able to assess and manage the suicidal patient.
- Be aware of the epidemiology and aetiology of bipolar affective disorder.
- Describe the clinical features of a manic episode and know how a manic episode is treated.
- Understand the long-term treatment for depression and bipolar affective disorder.

**CBL3: Personality Disorders, with a Focus on Emotionally Unstable Personality Disorder.**

- Be aware of the epidemiology and the aetiology of personality disorders.
- Be aware of the three different “clusters” of personality disorder and the common features of each individual personality disorder.
- Describe the characteristic features of emotionally unstable personality disorder.
- Understand management options in the treatment of emotionally unstable personality disorder (both when in crisis and long-term management).
- Be aware of the outcome and prognosis of emotionally unstable personality disorder.

**CBL4: Challenging Behaviour in Psychiatry of Intellectual Disability.**

- Be aware of the aetiology of challenging behaviour.
- Understand the assessment process in challenging behaviour.
- Be familiar with common investigations and assessments which may be required in challenging behaviour.
- Understand different treatment options (pharmacological and non-pharmacological).
- Understand the role of the multi-disciplinary team in assessing for and managing challenging behaviour.

**CBL5: Trauma, Attachment & Autistic Spectrum Disorder.**

- Understand different types of abuse and trauma affecting young people and their impact.
- Understand the concept of attachment and its importance in development.
- Understanding of the complexity of children living within family units, communities and social systems and the impact of these on wellbeing.

- Understand what is meant by neurodevelopmental disorder including autistic spectrum disorder (ASD).
- Understand how a diagnosis of ASD is made and what are the management options.
- Understand which comorbidities are associated with ASD.

## 10.6 Surgery C CBLs.

### **CBL1: Adult Head & Neck Cancers.**

- Have an awareness of the epidemiology of head and neck cancer.
- Be able to describe the typical features (signs and symptoms) of head and neck cancer.
- Be able to apply a surgical sieve to arrive at a differential diagnosis.
- Have a clear understanding of the immediate steps necessary when a clinical suspicion of head and neck cancer exists.
- Appreciate the broad treatments and their sequelae.

### **CBL 2: Paediatric ENT.**

- Describe the common causes, clinical features and management of hearing loss in children.
- Differentiate between sensorineural and conductive hearing loss.
- Recognise and describe the features of a normal and abnormal tympanic membrane.
- Be able to interpret tuning fork tests.
- Be able to interpret an audiogram.
- Be able to differentiate between the different causes of the discharging ear and describe the management options available.

### **CBL3: Burn Injury.**

- Be aware of the aetiology, incidence and prevalence of burn injuries.
- Assessment of the acute burn: depth, total body surface area and inhalation injury.
- Initial resuscitation of the acutely burned patient.
- Understand the different treatment options (surgical and non-surgical) utilised in the management of acute burn injury.
- Be aware of the long-term outcomes and prognosis for different types of burn injury, both physical and psychological.

### **CBL4: Critical Care in Ophthalmology.**

- Know the key elements of the ophthalmic history and examination.
- Be able to manage the older person having difficulty seeing.
- Be able to assess someone presenting with transient visual loss.
- Be able to assess a person presenting with a painful red eye.



## 11. Clinical Skills.

Sessions delivered during the Clinical Placements and Academic Weeks.

### 11.1 Academic Week Clinical Skills Sessions.

#### **Peripheral Venous Cannulation.**

- Understand reasons for undertaking peripheral venous cannulation.
- Understand hazards of peripheral venous cannulation.
- Understand the principles of Aseptic Non-Touch Technique (ANTT) in relation to peripheral venous cannulation.
- Management of peripheral venous cannulation: safe removal and documentation including Visual Infusion Phlebitis (VIP) score.
- Be able to carry out cannulation safely and within Trust guidelines.

#### **Intravenous Infusion.**

- Understand the principles of ANTT and its application in relation to preparing intravenous fluids.
- Be able to run through an IV fluid line without contamination and within Trust guidelines.

#### **Wound Care & Basic Wound Closure.**

- Understand the basic principles of wound cleaning.
- Understand the principles of ANTT.
- Be able to apply a basic adhesive dressing and within Trust guidelines.
- Understand the various methods available of basic wound closure.
- Be able to carry out basic wound closure safely and within Trust guidelines.

#### **Basic Airway Management**

- Recognise the common causes and symptoms of airway obstruction.
- Understand the role of simple techniques and devices for maintaining the airway.
- Demonstrate how to correctly size and insert oropharyngeal and nasopharyngeal airways.
- Demonstrate how to use suction and bag-valve-masks (BVM) safely and correctly.

### 11.2 Clinical Placement Clinical Skills Teaching

- Adult BLS, paediatric BLS, venepuncture & cannulation equipment refresher, verification & certification of death, use of syringe drivers, revision of the neurological examination.

## 12. Communication for Clinical Practice.

Sessions delivered during the Academic Weeks and Medicine D Placement.

### Lecture 1: Palliative & End of Life Care.

- Develop awareness of the evidence base to support the need for effective communication in palliative and end of life care and efficacy of the training model.
- Recognise some of the barriers to engaging in palliative and end of life conversations from a patient/relative perspective.
- Reflect on barriers to effective communication in palliative and end of life care conversations from a self/doctor perspective.
- Identify the impact of poor communication in palliative and end of life care.

### Lecture 2: Skills & Behaviours.

- Identify the skills that facilitate effective communication in sensitive and challenging scenarios/consultations.
- Recognise blocking behaviours and their role in inhibiting or concluding conversation.
- Develop awareness of a consultation structure/framework for palliative and end of life care.

### Simulation.

- Translate awareness of facilitative skills and blocking behaviours into appropriate behaviours in palliative and end of life care conversations.
- Demonstrate the ability to listen empathically and respond appropriately to patient and family psychological responses.
- Elicit the worries, views and values of patients and family related to the patient's condition and treatment options across all domains in end of life care.
- Deal with difficult questions and share significant news appropriately with compassion and sensitivity, acknowledging key concerns and providing appropriate advice.
- Recognise the appropriate ways a conversation related to DNACPR may be introduced, when this is required and what is appropriate.
- Employ compassionate and professional behaviour, an honest, person centred, flexible approach to communication in challenging scenarios such as complaints, uncertainty.
- Provide information to a patient about their diagnosis, management plan and options for care, exploring patient circumstances, wishes and priorities to assist management planning.
- Share news of the unexpected death of patient with a family member appropriately, with an understanding of the practical issues.
- Critically analyse and integrate principles of ethical reasoning in challenging communication situations.
- Participate in appropriate reflection, debriefing and effective feedback for personal development and self-care.

- Recognise when personal responses to emotionally charged and sensitive situations require support to facilitate professional communication for clinical practice.

## 13. Community Clinical Teaching.

During each CCT session the Student Doctor will:

- Work effectively within a group to enhance their own and others learning.
- Be given opportunity to discuss professional or ethical issues that have arisen in clinical placement.
- Discuss in an enquiry-based format, cases brought by the students from their previous placement.
- Understand the patient journey and the interface between primary and secondary care.
- Identify the members of the multidisciplinary team and their individual roles and responsibilities when caring for patients of all abilities and diversities, and the importance of collaborative team working.
- Recognize the potential challenges of patients with disability in history taking, examination investigation and ongoing care.
- Discuss and reflect on how equality and diversity in the population and individual patients' effects health care needs.
- Recognise the role of primary care in the providing economically effective and sustainable healthcare.
- Identify his or her own learning needs to plan their own learning.

### **Outcomes from case discussion:**

- Develop presenting, summarizing, feedback and teaching skills from the discussion with fellow students and tutor.
- Progress their clinical reasoning skills to enable formulation of differential diagnoses, appropriate investigations, management plans (as determined by level of academic year).
- Consider options for patients such as personalized care, therapeutic management, self-care, and other non-pharmacological means of care (e.g. social prescribing) in the patient journey.
- Evaluate the patient with polypharmacy, the approach to medication reviews and de-prescribing as well as prescribing practice in complexity.
- Rehearse the skills necessary to facilitate shared decision making with a patient, the explanation of risk and relevant safety netting.
- Recognize the importance of tolerating uncertainty and other human factors as a medical professional.
- Value the importance of working collaboratively and in teams with other health care professionals and other agencies as teams, longitudinally for the benefit of the patient.
- Evaluate best evidence and guidance as it pertains to the case.
- Incorporate the issues of patient safety in case discussion.

- Reflect on cases, integrating experiences in placement and elsewhere including ethical and professional issues.

### 13.1 Academic Weeks CCT Sessions.

#### **Applying Clinical Reasoning (Academic Week 1)**

- Understand the concept of bias as it applies to hypothetico-deductive reasoning when forming differentials, investigations and management plans.

#### **Women & Child Health in the Community (before Obstetrics & Gynaecology B and Paediatrics B placement).**

- Through history and examination assess children presenting with common conditions seen in primary care, such as constipation and enuresis.
- Apply the biopsychosocial model to explore parental/patient concerns to provide short- and long-term management of common paediatric problems seen in primary care.
- Demonstrate effective history taking (via role play) of a woman requesting contraceptive services.
- Discuss the challenges and benefits of patient access to contraceptive services in the NHS and the impact of media reporting on patient choice and perception of risk.

#### **The Patient with Cancer in Primary Care (before Medicine D placement).**

- Critically evaluate the effectiveness of the 2-week referral process in the early detection and referral of cancer in the UK.
- Discuss the impact on a patient of a 2-week referral process for a common presentation of cancer in primary care, including investigation, shared decision making and treatment.
- Use clinical reasoning skills to demonstrate how investigations in primary care could indicate a patient may have underlying or occult malignancy, for example from blood or urine tests.

#### **The Patient in Pain (before Neurology placement).**

- Identify the clinical features, differential diagnosis, appropriate investigation and management for a patient presenting with headache in primary care.
- Apply the principles of the analgesic ladder and other pain management strategies to a patient presenting with headache in primary care, including explanation of common side effects.
- Construct a management plan, including explanation of red flag symptoms and safety netting, for a patient presenting with headache.
- Recognise the challenges of patients presenting with chronic pain or fibromyalgia and be able to apply current pain theories and evidence base to appropriate management and referral.

### **Common Mental Health Problems in Primary Care (before Psychiatry A placement).**

- Identify the clinical features and appropriate pharmacological and non-pharmacological management for a patient presenting with depression, anxiety or substance misuse in primary care.
- Conduct a risk assessment on a patient, in a rehearsal setting, presenting with self-harm in primary care and be able to manage and refer appropriately.
- Debate the impact of social media and other factors on wellbeing and the increasing prevalence of mental health problems on the individual, the NHS and society.

### **Eyes & Ears in Primary Care (before Surgery C placement).**

- Take a relevant ophthalmic history for a patient presenting with acute visual loss or red eye and describe the relevant examination with differential diagnoses.
- Formulate a management plan, including appropriate referral, for a patient presenting with acute disturbance of vision or red eye.
- Describe the clinical features, differential diagnosis, appropriate investigation and management for a patient presenting with ENT infections in primary care, including acute otitis media, acute otitis externa, sore throat, tonsillitis, sinusitis and laryngitis.

### **The Elderly Patient (before Medicine C placement).**

- Discuss the impact of aging on the individual, families, carers, the NHS and society.
- Describe frailty and its syndromes as elaborated by the British Geriatric Society, *Fit For Frailty* documentation.
- Apply patient-centred principles and the biopsychosocial models to a patient with frailty in primary care to plan longitudinal care.
- Differentiate between dementia and delirium through clinical assessment and apply ethical reasoning to formulate an appropriate management plan.

### **Medical Complexity (before General Practice B placement).**

- Discuss complexity theory as it applies to the Institutions of the NHS and then to the individual's journey through the NHS.
- Define Medical complexity.
- Discuss issues arising in medical complexity including ethical issues, bias, communicating uncertainty, poor compliance, health damaging behaviour and complex social problems.
- Analyse a complexity scenario from primary care, including effective patient centred management options and safety netting.

## **13.2GP Placement CCT Sessions.**

### **Week 1: Joint Problems in Primary Care.**

- Formulate differential diagnoses for acute and chronic musculoskeletal presentations in primary care, including inflammatory and degenerative causes, based on history and examination findings.
- Request and interpret appropriate investigations in a patient presenting with musculoskeletal symptoms in primary care.
- Formulate a management plan for common musculoskeletal problems seen in primary care including, shoulder pain, hip pain, knee pain, wrist/hand pain, and foot/ankle pain.
- Describe the impact of musculoskeletal disease on a patient, their relationships, and society in general.
- Recognise the need for a variety of approaches to managing musculoskeletal symptoms, including patient factors, diagnostic uncertainty, generalised pain, and potentially serious diagnoses.

### **Week 2: Palliative Care in the Community.**

- Understand the impact of the patient journey on the physical, social, psychological and spiritual management of a palliative care patient in the community.
- Describe the Gold Standards Framework and discuss the practical application of it in community palliative care, including its use in both malignant and non-malignant diseases.
- Describe palliative care multidisciplinary working between GPs, District Nurses, Community Palliative Care Teams and Specialist Palliative Care Teams.
- Discuss advance care planning in the community, including the use of anticipatory medications in the community.
- Understand the communication and ethico-legal issues involved in palliative care in the community, including resuscitation decisions and mental capacity.

### **Week 3: Complex Conversations in Primary Care.**

- Describe examples of potentially challenging conversations occurring in primary care.
- Elicit the biological, social, psychological, environmental and cultural factors contributing to a patient seeking health advice and describe their impact within a consultation.
- Outline an approach to handling a challenging conversation with a patient, addressing a patient's ideas, concerns and expectations.
- Develop a safety-net as part of a management plan for a concerned patient.

### **Week 4: Interpreting Results in Primary Care.**

- Request focused, relevant investigations for patients presenting in primary care.
- Understand how results are managed in primary care, including how serious abnormal results are managed between the laboratory and a GP surgery.
- Recognise the importance of interpreting results in a clinical context and the challenges of interpreting results in isolation.

- Formulate a differential diagnosis and management plan based on the results of investigations of a patient seen in their own clinical practice whilst on placement in primary care.



## 14. Disability & Care in the Community.

Sessions delivered during the Clinical Placements.

### **Deaf Awareness Workshop.**

- Gain awareness and understanding of communication issues when interacting with D/deaf people.
- Consider ways in which access to health services may be difficult for D/deaf people.
- Identify the differences between Deaf and hearing culture.
- Describe the correct terminology in relation to deafness.
- Explore communication methods used with D/deaf people and put these into practice.
- Recognise the importance of using independent qualified interpreters.

### **Intellectual Disability Awareness Day.**

- Define what an intellectual disability is and be aware of the common causes.
- Outline and implement strategies to ensure effective communication with individuals with an intellectual disability.
- Understand how an intellectual disability may impact on a person's life, considering issues around health, emotional well-being, family life, and other social aspects.
- Be aware of the health care issues specific to a person with an intellectual disability and identify how mental illnesses may present in individuals with an intellectual disability.
- Identify reasons for health care inequalities in people with an intellectual disability and how they can be addressed.
- Be aware of UK legislation in relation to consent and capacity.

### **Living with a Long-Term Disability Workshop.**

- Understand the long-term impact of a spinal cord injury on an individual and their family - considering the physical, emotional, social and vocational aspects.
- Understand the long-term impact of a head injury on an individual and their family – considering the physical, cognitive, emotional, social and vocational aspects.
- Appreciate the role of the 3rd sector in supporting patients with a long-term condition.
- Have an awareness of the role of assistive technology in supporting individuals with a long-term disability.

### **Parkinson's Awareness Workshop.**

- Outline the basic pathophysiology, clinical features, natural history and management of Parkinson's Disease.
- Appreciate the 'patient journey' for an individual diagnosed with Parkinson's Disease.

- Understand how Parkinson's Disease may impact on a person's life considering issues around health, emotional well-being, family life, employment, housing and other social aspects.
- Consider the communication difficulties an individual with Parkinson's Disease may encounter.

### **Stroke Awareness Workshop.**

- Understand the personal, social and medical impact of a stroke on an individual and their family.
- Be aware of the hidden disability that an individual may have following a stroke long-term
- Identify the communication difficulties an individual may encounter following a stroke and have an awareness of aids and techniques used to help overcome these difficulties.
- Appreciate the role of 3rd sector organisations, such as the Stroke Association in supporting individuals following a stroke.

### **Visual Awareness Workshop.**

- Appreciate the role of Christopher Grange Visual Rehabilitation Centre in supporting individuals with a visual impairment and be aware of the facilities and services they have to offer.
- Consider how being visually impaired may affect the ability to perform basic tasks, and how this may impact on engagement with society in general and medical services in particular.
- Understand how to guide someone who is visually impaired – consider the safety and inter-personal reasons as to why this is done in this particular way.
- Discuss with service users their experiences of visual loss – including their views on the service that they have received from the medical profession.
- Consider what adjustments can be made to ensure people with a visual impairment have a more positive experience of healthcare.

## 15. Safe Prescribing.

Sessions delivered during the Clinical Placements.

### **Medicine C Safe Prescribing Session.**

- Define approximate daily routine fluid and electrolyte requirements for an adult patient.
- Choose and prescribe appropriate intravenous fluid regimens for resuscitation and routine maintenance.
- Identify medicines which can cause acute kidney injury.
- Demonstrate an understanding of the principles of dosage adjustment of medicines for patients with renal impairment.
- Demonstrate an understanding the effects of polypharmacy and the principles of appropriate de-prescribing.

### **Neurology Safe Prescribing Session.**

- Describe the factors you need to consider when choosing medicines to treat epilepsy.
- Identify potential adverse effects associated with the use of antiepileptic medicines.
- Demonstrate an awareness of the safe prescribing and monitoring of phenytoin.
- Prescribe and monitor common medicines used in Parkinson's disease.
- Understand the principles of managing Parkinson's disease medicines in a nil by mouth patient.

### **Obstetrics & Gynaecology B Safe Prescribing Session.**

- Identify the different HRT regimens available and describe situations in which it would be appropriate to use them.
- Describe the risks associated with the use of HRT.
- Describe the treatment options available for pelvic inflammatory disease and tubo-ovarian abscesses.
- Prescribe appropriate treatment for sexual transmitted infections following the principles of antimicrobial stewardship.

### **Paediatrics B Safe Prescribing Session.**

- Apply the principles of national paediatric prescribing guidelines to practice.
- Demonstrate an awareness of the risk of prescribing error in paediatric patients.
- Understand the importance of appropriate calculation skills when prescribing medicines for paediatric patients.
- Demonstrate an ability to perform appropriate drug dose calculations.

## **Psychiatry A Safe Prescribing Session.**

- Describe the signs and symptoms of lithium toxicity and demonstrate an awareness of how to manage this.
- Identify the risk factors for serotonin syndrome and describe how you would manage this.
- Identify the risk factors for neuroleptic malignant syndrome and describe how you would manage this.
- Recognise the signs and symptoms of acute dystonia and describe how you would manage this.

## 16. Simulation.

Sessions delivered during the Medicine C Placement and Academic Weeks.

### 16.1 Trust Simulation Training.

#### **Clinical.**

- Develop a framework for recognition, management, escalation and referral of an acutely ill patient.
- Demonstrate procedural and decision-making skills in managing an acutely unwell patients including working in a team, prioritizing, clinical decision making, leadership and followership.
- Describe principles of management of simple and common acute patient episodes in a variety of clinical settings.
- Recognise deteriorating patients and initiate immediate management of such patients.

#### **Non-technical Skills.**

- Understand the principles of effective teamwork, including leadership and followership.
- Develop communication skills in the context of a team, including the use of structured communication such as the use of SBAR and HALT, completed and directed communication using feedback loops and final checks.
- Demonstrate the ability to speak up in the context of safety, and to listen and respond appropriately when dealing with concerns about safety.
- Demonstrate the ability to maintain situational awareness and support team awareness.
- Demonstrate awareness of elements of safe decision making, including an understanding of 'red flags' that may indicate loss of awareness and the risk of unsafe decisions.

### 16.2 LivDocSim 2: Awareness of Team.

#### **Able to further understand:**

- The key elements that support effective teamwork.
- How situational awareness and shared mental models are prerequisites for effective decision making.
- Your role as a clinician and professional in supporting team awareness and contributing to decision making.
- Frameworks for Non-Technical skills and team resource management described by Flynn, R and Gaba, D.

#### **Able to clinically demonstrate:**

- Recognition of the deteriorating patient and utilising standard operating procedures such as NEWS to assist in assessment.

- Experiment with decision making aids such as DODAR.
- Utilise the HALT tool to support a colleague who has lost situational awareness.
- Utilise SBAR to deliver a situational report.

## 17. Seminars.

To be delivered in person during the Academic Weeks. Academic Weeks will also contain in person induction and information lectures.

### **PEL: Professional Behaviour.**

- Recap the expectations of medical students, both in their personal and professional lives.
- Understand the consequences of lapses in professionalism.
- Describe how to maintain patient confidentiality, within and outside of clinical environments.

### **PEL: Forming and Maintaining Professional and Personal Relationships.**

- Analyse the importance of team dynamics and effective communication between team members.
- Discuss ways of dealing with difficult professional relationships.
- Discuss the importance of maintaining personal relationships.

### **Personalised Medicine & Genetics: Big Data and Electronic Health Records in Personalised Medicine.**

- Understand how analysis of large patient datasets and electronic health records can be utilised in personalised medicine approaches.

### **Personalised Medicine & Genetics: Personalised Medicine in Clinical Practice.**

- Synthesise complexity, uncertainty and risk to inform shared decision making with patients.
- Understand how pharmacogenomic testing is clinically implemented and the barriers.

## 18. Online Lectures.

To be watched in the Academic Week prior to commencing each placement:

### 18.1 General Practice B Online Lectures.

#### **Acutely Ill Patient: Anaphylaxis.**

- Be aware of the range of allergies and provoking stimuli causing anaphylaxis.
- Describe the key presenting features of the patient with anaphylaxis.
- Explain the initial emergency management of anaphylactic shock.
- Consider ongoing management and investigation following the acute phase.

#### **PTP: Clinical Pharmacology 7 - What do Patients Want to Know About Medicines?**

- Understand why good information is important.
- Describe how to involve patients in prescribing decisions.
- Understand the importance of self-management plans.
- Have an awareness of patient decision aids.
- Understand the importance of shared decision making.

#### **PEL: Duty of Candour.**

- Understand the ethical responsibility that underpins duty of candour
- Review the legal requirement for duty of candour.

#### **PPGH: Financing Healthcare.**

- How do we finance healthcare services?
- Introduction to equity.
- Introduction for economic evaluations.
- Introduction to Universal Health Coverage.

#### **PPGH: Contemporary Issues in UK Public Health.**

- TBC.

#### **Personalised Medicine & Genetics: Precision Public Health.**

- Judge how potential health inequalities relate to personalised medicine.

#### **Design & Technology in Healthcare 1:**



### **Telemedicine, Augmented Reality & Virtual Reality.**

- Be able to cite examples of healthcare deployment of telemedicine, Augmented Reality (AR) and Virtual Reality (VR).
- Understand the potential uses for telemedicine and AR/VR.
- Have a basic understanding of the technology that underpins telemedicine and AR/VR.

### **mHealth & Healthcare Apps.**

- Have an awareness of the emerging models of care underpinned by health and apps.
- Understand the basics of how to use and assess mhealth platforms/health apps.
- Be able to cite examples of mhealth/health apps.

## **18.2 Medicine C Online Lectures.**

### **Geriatric Medicine: Comprehensive Geriatric Assessment & Frailty.**

- Be aware of frailty/complexity and patient care.
- What is a Comprehensive Geriatric Assessment (CGA)?
- How CGA is used in management of frailty.
- The benefits of CGA.
- Understanding the importance of MDT working.

### **Pathology: Pathology in the Elderly.**

- Understand the pathologies which arise in the elderly and how the clinical manifestations differ from those seen in younger patients.
- Know the pathological features of the different types of pneumonia, bronchiectasis, COPD, honeycomb lung and diffuse alveolar damage.
- Know how to approach a complex case with multiple pathologies in order to determine which pathologies directly contributed to death.
- Know the pathological features of common chronic conditions in the elderly presented in this lecture.

### **PTP: Clinical Pharmacology 5 - Prescribing in the Elderly.**

- Explain why prescribing in the elderly is different to prescribing in a healthy adult.
- Understand how the pharmacokinetics and pharmacodynamics of commonly prescribed medicines alters in the elderly.
- Understand where to obtain accurate prescribing information for the elderly.
- Discuss how to prescribe safely and effectively in the elderly.

### **PTP: Clinical Pharmacology 6 - Polypharmacy & Deprescribing.**

- Understand the terms "polypharmacy" and "deprescribing".
- Discuss which populations are at risk for problematic polypharmacy.
- Explain established interventions to address polypharmacy, including deprescribing. Understand.
- Understand the effects of polypharmacy on individuals, finances, and adherence to medication.

### **Renal: The Patient with Glomerular Disease.**

- Describe the possible causes and investigations of patients presenting with proteinuria.
- Describe the possible causes and investigations of patients presenting with haematuria.
- Describe the glomerular damage and clinical features of nephritic and nephrotic syndrome.
- Describe common glomerular diseases and their clinical presentation.

### **Renal: Renal Manifestations of Systemic Diseases.**

- Describe a systematic approach to kidney disease.
- Understand how systemic diseases can affect the kidneys.
- Describe the pathology and clinical features of kidney disease in patients with diabetes mellitus.
- Describe the pathology and clinical features of kidney disease in patients with hypertension.
- Describe the pathology and clinical features of kidney disease in patients with myeloma.
- Be aware of the principles of less common systemic diseases affecting the kidneys (ANCA vasculitis and systemic lupus erythematosus).

### **Pathology: The Pathology of Acute & Chronic Renal Failure.**

- Understand the role of renal biopsies in managing renal failure.
- Describe the pathological features of the main causes of acute and chronic renal failure and the role of the renal biopsy in the diagnosis and management.
- Understand pre-renal, renal and post-renal causes of renal failure.
- Know and be able to describe the causes of renal failure, with examples.

### **PTP: Clinical Pharmacology 1 - Prescribing in Renal & Hepatic Failure.**

- Explain why prescribing in patients with renal and/or hepatic failure is different to prescribing in a healthy adult.
- Understand how the pharmacokinetics and pharmacodynamics of commonly prescribed medicines alters in renal and/or hepatic failure.
- Understand where to obtain accurate prescribing information for patients with renal and/or hepatic failure.
- Discuss how to prescribe safely and effectively in patients with renal and/or hepatic failure.

### **Rheumatology: Inflammatory Arthritis.**

- Identify key clinical features that differentiate between inflammatory and mechanical joint disease.
- Formulate an appropriate strategy to investigate a patient with suspected inflammatory arthritis and identify the patient requiring urgent referral to rheumatology out-patient services.
- Formulate a plan for the short-term management of a patient presenting with suspected inflammatory arthritis.
- Describe the holistic management of a patient with inflammatory arthritis in the medium to long term.
- Describe the complications and disease associations of inflammatory arthritides.

### **Rheumatology: Autoimmune Connective Tissue Diseases & Vasculitis.**

- Describe the role of autoantibody testing in non-specialist clinical practice.
- Identify the classical clinical presentations and important complications of the most common connective tissue diseases.
- Identify, investigate and formulate a plan for the immediate management of the patient presenting with suspected giant cell arteritis.
- Describe the long-term management of giant cell arteritis.
- Describe the classical clinical presentation and important complications of small vessel vasculitides (GPA/EGPA).

## **18.3 Medicine D Online Lectures.**

### **Palliative Medicine: An Introduction to Palliative Care.**

- Understand definitions in relation to palliative care.
- Describe the range of palliative care services.
- Describe the concept of total pain.
- Recognise the importance of palliative care on a global basis.

### **Palliative Medicine: Euthanasia & Physician Assisted Suicide.**

In relation to Euthanasia and Physician Assisted Suicide:

- Understand the definitions and procedures involved.
- Discuss the ethical issues.
- Describe the legal framework.

### **Palliative Medicine: End of Life Decision Making.**

- Understand the principles of Advance Care Planning.

- Understand the principles of Anticipatory Care Plans.
- Discuss the ethical and legal issues in relation to withholding and withdrawing food and fluid.

### **Oncology: Oncological Emergencies (delivered during Oncology placement).**

- Describe the key oncological emergencies.
- Describe their key features.
- Understand why prompt management is important.
- Explain how they are managed.

### **Oncology: Radiotherapy.**

- Describe the different ways radiotherapy can be delivered.
- Understand the basic principles of radiotherapy.
- Describe the common side effects.

### **Oncology: Cancer Survivorship.**

- Explain the concept of cancer survivorship.
- Understand the long-term effects/impact of anti-cancer treatment.
- Describe how these can be monitored and mitigated.

### **Haematology: Making Sense of the Full Blood Count.**

- Develop a systematic approach to reviewing the full blood count.
- Apply basic principles when interpreting blood count abnormalities.
- Understand the main causes of microcytic, normocytic and macrocytic anaemia
- Understand the main causes of polycythaemia.
- Understand the main causes of abnormal platelet and white cell counts.

### **Haematology: De-mystifying Blood Cancer.**

- Understand the presenting features of blood cancers.
- Understand the main clinical problems (innate and treatment related) that arise in patients with different types of blood cancer.
- Understand how to manage a patient with suspected blood cancer in the primary and secondary care settings.
- Understanding the typical blood cancer patient journey.

### **Pathology: Carcinoma of Unknown Primary.**

- Understand the clinical and pathological approach to a carcinoma of unknown primary.
- Understand the information which the investigations can provide and how this helps to establish a primary site and treatment plan.
- Understand how to interpret a pathology report for a carcinoma of unknown primary.

### **Biochemistry: Tumour Markers.**

- Understand the tumour markers commonly used in biochemistry, including clinical indications for testing and types of malignancy most commonly associated with elevated values.
- Understand the limitations of tumour markers, including clinical sensitivity and specificity as well as analytical considerations.
- Understand the other biochemical abnormalities possible in malignancy.

### **PTP: Oncology 1 - Chemotherapeutic Agents.**

- Understand the common therapeutic drug classes used to treat common cancers, and the names of specific drugs within each class.
- Understand the mechanism of action of the commonly used cancer chemotherapy drugs.
- Describe the common adverse effects from cancer chemotherapy agents.
- Assess the variation in risk: benefit of cancer chemotherapy compared to other common therapies.

### **PTP: Oncology 2 - Biological Therapies.**

- Understand the common targets of biologic agents used in cancer chemotherapy, and names of commonly used drugs.
- Understand the mechanism of action of the biologic agents used in cancer chemotherapy.
- Compare biological agents used in cancer chemotherapy with other anti-cancer medications (which types of cancer, duration of treatment, measures of treatment success).
- Discuss how clinical trials have adapted to assess biological agents that treat very rare diagnoses (e.g. basket studies).

### **PSM: Death & Dying.**

- Analyse & manage psychological factors in breaking bad news; stages of grief; responses to death and dying.

## **18.4 Neurology Online Lectures.**

### **Neurology: Multiple Sclerosis.**

- Understand key concepts of MS, its epidemiology (including burden of disease), and pathophysiology (including clinical correlates of inflammation - demyelination, and neurodegeneration - axonal loss).
- Recognise typical patient journeys in MS (including RRMS from clinically isolated syndrome to secondary progressive disease, and PPMS) and know the sites of predilection for MS, with relevant differential diagnoses, both clinical and radiological.
- Know the practicalities of MS management (including symptomatic and disease-modifying treatment, and their limitations).

### **Neurology: Parkinson's Disease.**

- Understand key concepts in PD, its epidemiology and pathophysiology (including relevant basal ganglia circuitry, the biology of neurodegeneration and relevant genetics).
- Recognise typical patient journeys in PD (pre-motor symptoms, early PD, end-stage PD and PDD), and recognise clinical features at presentation suggestive of Parkinson-like syndromes.
- Know the practicalities of PD management (including use of agents acting on dopamine metabolism/transmission, novel treatments including DBS and the various risks)
- Know the risks from dopamine antagonist drugs in PD.

### **Neurology: Epilepsy.**

- Understand key concepts in epilepsy including epidemiology, focal and generalised epileptogenesis, and the determinants of prognosis.
- Recognise typical patient journeys in epilepsy (a woman with IGE in remission through child-bearing years, a man with refractory focal seizures, and psychosocial disability, who has surgery).
- Know the practicalities of epilepsy management, including counselling the newly-diagnosed (on general safety, driving, and managing risk of status and SUDEP), epilepsy and fertility/pregnancy, safe prescribing in epilepsy, advanced treatment options in epilepsy, epilepsy and mental health morbidity.

### **Neurology: Migraine.**

- Understand key concepts in migraine (including epidemiology and pathophysiology).
- Recognise typical patient journeys in migraine and other primary headache disorders (including TACs and TGN) and recognise NDPH (including differentials of acute and persistent headache, such as SAH, venous sinus thrombosis, GCA, low and high CSF pressure states).
- Know the practicalities of migraine management, including the problem of analgesic-associated headache and the spectrum of migraine aura presentations.

### **Neurology: Encephalitis.**

- Understand key concepts in encephalitis including epidemiology (in the UK and globally) and pathophysiology (including infective causes, primary autoimmunity and paraneoplastic effects).
- Recognise typical patient journeys in viral encephalitis (including acute confusion, systemic features and symptomatic seizures, and long-term effects) and recognise differentials (including the range of infective and autoimmune encephalitis, other acute and subacute encephalopathies, decompensation of undiagnosed dementia).
- Know the practicalities of encephalitis management (including the interpretation of CSF findings, distinguishing between encephalitis and meningitis, the role of aciclovir and general safe management of acutely confused patients). To be aware of the practical challenge of managing cognitive impairment after encephalitis.

### **Neurosurgery: Brain Tumour.**

- Understand key concepts in brain tumour disease including epidemiology, classification and pathophysiology including molecular biology), the range of clinical presentations
- Understand relationship between presentation, pathology (including molecular markers), treatment and prognosis.
- Recognise typical patient journeys with brain tumours including those with meningioma, low- or high-grade glioma, pituitary tumour or metastasis), and recognise particularly that brain tumour journeys may be short or long.
- Know the practicalities of brain tumour presentations including differential diagnoses and investigation using modern imaging techniques, and the practicalities of interaction between primary care or acute hospital with specialist services.

### **Neurosurgery: Spinal Disease.**

- Understand key concepts in Spinal disease including epidemiology, classification and pathophysiology and the range of clinical presentations (e.g. traumatic, neoplastic and infective conditions often involving the spinal column, or inflammatory and vascular diseases which often involve the spinal cord itself).
- Understand the relationship between presentation, pathology, treatment and prognosis.
- Recognise typical patient journeys in Spinal diseases, including degenerative disease of the spine - indications for surgical intervention and for non-surgical management.
- Know the practicalities of spinal diseases including acute presentations that may require neural decompression or other intervention (e.g. cauda equina syndrome, acute compressive myelopathy), and the practicalities of interaction between primary care or acute hospital with specialist services..

### **Acutely Ill Patient: The Unconscious Patient.**

- Describe the initial assessment of the patient with a reduced conscious level (including use of investigations and initial management).
- Be aware of key differential diagnoses for the unconscious patient.
- Explain initial management for the key diagnosis and recognise where patients may need a high level of care and emergency specialist input.

### **Pathology: Neuropathology.**

- Understand the pathology of stroke.
- Know the types of brain haemorrhage which occur and how these are caused.
- Know the pathological features and causes of meningitis.
- Know the main types of neoplasm which arise within the CNS.
- Know the pathological features of the main neurodegenerative diseases.
- Know the pathological features of multiple sclerosis.

### **PTP: Neuropharmacology 3 - Movement Disorders.**

- Understand the common therapeutic drug classes used to treat movement disorders, and the names of specific drugs within each class.
- Understand the mechanism of action of the commonly used therapeutic classes for managing movement disorders.
- Discuss common clinical situations where management of movement disorders is required.

### **PTP: Neuropharmacology 5 - Seizures.**

- Understand the common therapeutic drug classes used to treat seizures, and the names of specific drugs within each class
- Understand the mechanism of action of the commonly used therapeutic classes for managing seizures.
- Discuss the national guidance for the management of status epilepticus.

## **18.5 Obstetrics & Gynaecology B and Paediatrics B Online Lectures.**

### **Obstetrics & Gynaecology: Fetal Medicine.**

- Be aware of the incidence of fetal structural anomalies.
- Describe the screening currently available for fetal anomalies.
- Describe how chorionicity and amnionicity arises in multiple pregnancies and be aware of complications specific to multiple pregnancies e.g. twin-to-twin transfusion syndrome.
- Understand the role of interventions in fetal medicine.
- Revise the law around termination of pregnancy.



- Understand the role of fetal medicine service provision and multidisciplinary management of women carrying fetuses with an anomaly/anomalies and the role of national fetal medicine specialist services.

### **Obstetrics & Gynaecology: Gynaecological Oncology.**

- Describe the incidence, presentation and investigation of vulval, vaginal, cervical, endometrial and ovarian cancers and how these can vary with age.
- Identify the gynaecological symptoms, signs and investigation findings which require urgent referral to secondary care.
- Explain how the NHS cervical cancer screening programme links to secondary care investigations for cervical cancer.
- Be aware of the role of surgery, chemotherapy and radiotherapy in the management of gynaecological cancers.
- Be aware of the MDT in planning gynaecological cancer management and providing support for patients.

### **Obstetrics & Gynaecology: Urogynaecology.**

- Be aware of the incidence and pathophysiology of the different types of urinary incontinence in women.
- Understand the mechanism and pathophysiology of pelvic organ prolapse.
- Know the components of a focussed history for urogynaecology problems.
- Be able to describe initial investigations for urinary incontinence.
- Understand in brief the pharmacological and surgical treatment options for urinary incontinence.

### **Sexual Health: Male & Female Presentations of STIs.**

- Know how to take a relevant sexual health history in a male and female presenting with symptoms.
- Know how to perform a relevant clinical examination in a male and female presenting with symptoms.
- Understand which tests to perform in a male and female presenting with symptoms.

### **PTP: Clinical Pharmacology 3 - Prescribing Safely in Pregnancy.**

- Explain why prescribing in pregnant patients is different to prescribing in a non-pregnant adult.
- Understand how the pharmacokinetics and pharmacodynamics of commonly prescribed medicines alters in pregnancy.
- Understand where to obtain accurate prescribing information for pregnant patients.
- Discuss how to prescribe safely and effectively in pregnant patients.

**Pathology: Tumours of the Female Reproductive Tract.**

- Ovarian tumours: presentation, classification, risk factors for epithelial tumours, types of epithelial tumours, FIGO staging for epithelial tumours and prognosis.
- Cervical Tumours: presentation and HPV screening, classification, risk factors, FIGO staging
- Endometrial tumours: risk factors, presentation, classification, FIGO Staging.

**Paediatrics: The Impact of Poverty on the Health of Children.**

- Appreciate the extent of child poverty in the UK.
- Appreciate the global impact and relate to children's rights.
- Reflect on the direct impact on child health.
- Understand the long-term influence of child poverty on population health.
- Learn the science of health inequalities.

**Paediatrics: Molecular Therapy for a Genetic Condition; Future & Past Reflections on Cystic Fibrosis.**

- Understand the molecular defect that underpins cystic fibrosis (CF).
- Appreciate the impact of this on people with CF.
- Consider how molecular therapies have been developed and tested for people with CF.
- Understand the translation of new advances to clinical practice and how NICE undertakes a health technology assessment.

**Paediatrics: Paediatric Endocrinology.**

- Consider and understand the challenges a chronic condition places on a child at school, particularly in the context of type 1 diabetes.
- Understand the management of type 1 diabetes in young people, especially the role of the multi-disciplinary team.
- Understand the normal growth and development of boys and girls during puberty.
- Appreciate the challenges this place on the young person and their family.
- Recognise when growth patterns during puberty are a concern and how and when to investigate these.

**Paediatrics: Life in a Busy Paediatric A&E Department; how to get the most from your placement.**

- Feel prepared for the A&E session at Alder Hey Children's Hospital.
- Understand patient flow through the department.
- Appreciate the impact of acute illness on a previously well child and their family.

- Understand the additional stress acute illness places on a child with a chronic condition and their family.
- Further understand recognition of risks that children face.

### **PTP: Clinical Pharmacology 4 - Prescribing for Children.**

- Explain why prescribing in children is different to prescribing in a healthy adult.
- Understand how the pharmacokinetics and pharmacodynamics of commonly prescribed medicines alters in children.
- Understand where to obtain accurate prescribing information for children.
- Discuss how to prescribe safely and effectively in children.

## **18.6 Psychiatry A Online Lectures.**

### **Psychiatry: A Patient's Journey through Mental Health Services.**

- Have an awareness of the impact that early childhood trauma can have on one's mental health.
- Gain an understanding of how mental health services are configured and the roles of the different members of the MDT (doctor, community psychiatric nurse, psychologist, etc.).
- Gain an understanding of what it is like to be assessed under the Mental Health Act 1983 and to be admitted to a psychiatric ward.
- Understand the importance of "hope" and "recovery" in a patient's journey.
- Understand, from a patient's perspective, how to communicate effectively with patients with mental health issues.

### **Psychiatry: An Introduction to Perinatal Psychiatry - Postpartum Depression & Puerperal Psychosis.**

- Have an awareness of the epidemiology of postnatal depression and of puerperal psychosis.
- Describe the clinical features of postpartum depression and of puerperal psychosis.
- Understand the management of postpartum depression and of puerperal psychosis.
- Have an awareness of the outcome and prognosis in postpartum depression and of puerperal psychosis.

### **Psychiatry: Anxiety & Stress-related Disorders.**

- Understand the classification of anxiety disorders.
- Know the clinical features of common anxiety disorders (generalised anxiety disorder, OCD and panic disorder) and of PTSD.
- Have an awareness of the epidemiology and aetiology of common anxiety disorders (generalised anxiety disorder, OCD and panic disorder) and of PTSD.

- Understand the management (pharmacological and non-pharmacological) of common anxiety disorders (generalised anxiety disorder, OCD and panic disorder) and of PTSD.

### **Psychiatry: Alcohol & Illicit Substance Misuse.**

- Be competent in taking a history from a patient with suspected alcohol or substance misuse.
- Understand the links between alcohol misuse and mental disorder.
- Understand the links between illicit substance misuse (including novel psychoactive substances) and mental disorder.
- Understand the management of opiate dependence.
- Understand the management of acute alcohol withdrawal and alcohol dependence.

### **Psychiatry: Dementia.**

- Be competent in taking a history from a patient presenting with cognitive impairment to make a diagnosis of dementia.
- Know how to investigate the patient presenting with cognitive impairment.
- Describe the clinical features of the common types of dementia (Alzheimer's, vascular, frontotemporal, Lewy body dementia).
- Be aware of the aetiology and epidemiology of the common types of dementia (Alzheimer's, vascular, frontotemporal, Lewy body dementia).
- Understand the management (pharmacological and non-pharmacological) of dementia.

### **Child & Adolescent Psychiatry: An Introduction to Child & Adolescent Psychiatry.**

- Understand how to adapt psychiatry assessment for children and adolescents.
- Understand what is involved in taking a developmental history.
- Have an awareness of the legal aspects of working with children and adolescents.
- Understand the assessment of and management of neurodevelopmental conditions, such as autistic spectrum disorder (ASD) and ADHD.
- Have an understanding of disorders or presentations that are specific to or more common in children and adolescents (e.g. school refusal, selective mutism, attachment disorders).

### **PTP: Neuropharmacology 1 - Common Neurotransmitter/Receptor Targets.**

- Understand commonly targeted neurotransmitters/receptors, and names of commonly used drugs that target these neurotransmitters/receptors.
- Understand the central nervous system and other effects of drugs that target neurotransmitter/receptors (including adverse effects).
- Discuss common clinical situations where medications that target neurotransmitter/receptors are required.

**PTP: Neuropharmacology 2 - Antipsychotics & Anxiolytics.**

- Understand the common therapeutic drug classes used to treat acute mental health deteriorations, and the names of specific drugs within each class.
- Understand the mechanism of action of the commonly used therapeutic classes for treating acute mental health deteriorations.
- Discuss common clinical situations where management of mental health emergencies occur.

**PTP: Neuropharmacology 4 - Antidepressants & Mood Stabilisers.**

- Understand the common therapeutic drug classes used to treat depression, and the names of specific drugs within each class.
- Understand the mechanism of action of the commonly used therapeutic classes for managing depression.
- Discuss common clinical situations where management of depression is required.

**PPGH: Reaching the Unreached: Delivering 'Talking Therapies' for Mental Health in Low & Middle-income Countries (LMIC).**

- Public Mental Health context in LMICs.
- Maternal depression – its prevalence and impact.
- Task-sharing as applied to cognitive-behaviour therapy for maternal depression.
- How technology can be used to scale-up task-shared interventions at a population level.

**PSM: Addiction & Dependence.**

- Characterise psychological and social theories and models of addiction & dependence and their impact upon an individual and society.
- Critically examine addiction to activities: e.g. exercise, social media, gaming, gambling and sex.

**18.7 Surgery C Online Lectures.****ENT: Essential Adult ENT.**

- Describe the normal ear, nose and throat.
- Describe common adult ENT symptoms, diagnosis and management.
- Interpret an adult audiogram and recognise common abnormalities.

**ENT: Common Paediatric ENT.**

- Compare the differences in anatomy and related pathology in child and adult ENT.

- Describe common paediatric ENT symptoms, diagnoses, and management.
- Describe the causes and basic management of stridor in a child.
- Describe the causes, diagnosis, management, and outcomes of hearing loss in a child.
- Identify the paediatric ENT red flags.

### **Oral & Maxillofacial Surgery: Facial Trauma & Oro-facial Infection.**

Facial Trauma: understanding of:

- Aetiology.
- Classification/fracture patterns and anatomy.
- Facial fracture presentation/clinical features.
- Essential emergency management.
- Principles of definitive management.

Oro-facial Infection understanding of:

- Presentation and causes (surgical sieve).
- Anatomy in relation to facial infections.
- Essential routine and emergency management.

### **Oral & Maxillofacial Surgery: Head & Neck Cancer.**

- Have an awareness of the aetiology and epidemiology of H&N cancer.
- Have a complete understanding of the red flag signs and symptoms of H&N cancer.
- Develop previous knowledge of diagnostic tests as applied to H&N cancer.
- Develop a broad appreciation of the:
  - Treatment options/modalities in H&N cancer.
  - Treatment side effects/sequelae of treatment.
  - Multidisciplinary and holistic care as applied to H&N surgery.

### **Ophthalmology: The Eye in Systemic Disease.**

- Know the main diseases that affect the visual system.
- Understand how the eye can be an indicator of systemic disease.
- Learn what systemic medications may affect the eye.
- Learn how drug interactions can cause problems.

### **Ophthalmology: Primary Care Problems in Secondary Care - What do we do?**

- Learn the treatment of red eye disorders.
- Learn how sight can be restored.
- Learn how sight loss can be prevented.
- Understand the impact of sight loss on the individual.

- Understand local and global public health issues.

### **Plastic Surgery: Burns & Plastic Surgery Emergencies.**

- Appreciate the breadth of different plastic surgery emergencies.
- Describe burns first aid, the primary assessment of a burn patient, the clinical features of different burn thickness injuries and early burn management including fluid resuscitation.
- Appreciate the severity of a major burn injury in relation to prognosis and outcomes.
- Describe the principles of assessment and management of upper limb and hand injuries including: open fractures, amputations/replantation, tendon and nerve injuries.
- Describe the principles of assessment and management of lower limb fractures and soft tissue injuries.
- Describe the principles of assessment and management of soft tissue injuries and infections including: lacerations, incised wounds, skin loss, animal & human bites, necrotising fasciitis and flexor sheath infections.

### **Plastic Surgery: The Reconstructive Ladder - Using Surgery to get Wounds to Heal.**

- Understanding basic science of wound healing.
- Anatomy of skin vasculature directly pertaining to skin flaps.
- Understanding why some wounds require reconstruction.
- Appreciating the difference between a skin graft and a flap.

### **Design & Technology in Healthcare 2:**

#### **Artificial Intelligence in Healthcare.**

- Understand the vocabulary used when describing and classifying Artificial Intelligence (AI).
- Be able to describe current applications of AI in healthcare.
- Be aware of the potential future applications of AI.

#### **Medical & Surgical Robotics.**

- Be aware of the potential of surgical/medical robotics and associated haptic controls.
- Understand the different types of robots used in healthcare from unmanned garbage disposal to high end robotic surgery.

#### **Additive Manufacturing.**

- Be aware of the applications of additive manufacturing in healthcare
- Have an awareness of how 3D printing works.

### **Design & Technology in Healthcare 3: Advanced Materials & Nanotechnology.**

- Demonstrate an awareness of emerging advanced materials and their potential uses in healthcare.
- Understand the basic premise of nanotechnology.



## 19. Workshops.

Delivered during the Academic Weeks.

### **PEL: When Things Don't go to Plan.**

- Differentiate between complaints and medical negligence.
- Understand how and why complaints occur.
- Understand the role of defence organisations.

### **Design & Technology in Healthcare: Telemedicine Training.**

- Demonstrate an awareness of emerging advanced materials and their potential uses in healthcare.
- Understand the basic premise of nanotechnology.
- Understand the advantages and limitation of telemedicine.
- Be able to carry out a competent telemedicine consultation.
- Be aware of what factors can be used to improve a telemedicine encounter.

### **PSM: Learning about Life Course.**

- Incorporate life course theories into explaining lived experience of patients.

### **PSM: Developing Coping Strategies & Resilience.**

- Understand stress and effective coping strategies, based on research evidence and reflecting on personal experiences.
- Describe resilience and the importance of maintaining it as a student doctor.
- Appraise your current approach to self-care and resilience, and plan modifications to improve it.

### **PPGH: Health Protection in Everyday Practice.**

- How to respond to notifiable infectious diseases in Hospital and GP settings (legal and clinical responsibilities).
- How to assess the degree of risk associated with notifiable diseases.
- How to communicate risk to individuals and contacts.
- Applying health protection principals in vulnerable populations (e.g. prisons; asylum seekers; homeless).

### **PPGH: Public Health is Everywhere - Spotting the Opportunities.**

- Use public health skills and knowledge to “make every contact count”.

- Use evidence to explain health policy decisions, including the design and delivery of services.
- Critically appraise the resourcing of local public health service provision.
- Explore how to provide advocacy for specialist patient groups.

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Contact details for all teams and individual staff can be found on the [School website](http://www.liverpool.ac.uk/medicine/contact-us/email/).  
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