



**INSTITUTE
OF MEDICINE**

ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

HIGHER SPECIALIST TRAINING IN

CLINICAL PHARMACOLOGY



This curriculum of training in Clinical Pharmacology & Therapeutics was developed in 2013 and undergoes an annual review by Prof David Williams National Specialty Director, Colm Small, Head of Postgraduate Training and Education, and by the Clinical Pharmacology & Therapeutics Training Committee. The curriculum is approved by the Institute of Medicine.

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Introduction

The Higher Specialist Training Programme in Clinical Pharmacology and Therapeutics commenced in 1997 and there are currently approximately 8-10 practicing clinical pharmacologists in Ireland. There is a need to maintain a pool of expertise in the Irish Healthcare system where medicines constitute the main intervention in healthcare. There is also a need to deliver essential undergraduate and ongoing, lifelong postgraduate teaching and to train specialists in Clinical Pharmacology & Therapeutics in order to maintain a critical mass in the Irish Healthcare setting.

Clinical Pharmacology and Therapeutics continues to contribute to national activities such as rational and safe prescribing, drug licensing, technology appraisal, pharmacoeconomics and pharmacovigilance. All healthcare providers should aim to encourage rational prescribing practices and balance medicines budgets through activities such as Drug and Therapeutics committees, formulary management, and reviews of drug use. Whilst these activities are not the preserve of Clinical Pharmacologists, they are, however, ideally prepared, following training in medicine development and use, and have a working understanding of the work of the pharmaceutical industry. These skills are also essential for teaching rational therapeutics to medical students and prescribers, managing drug overdoses, and advising research ethics committees.

The new and revised curriculum in Clinical Pharmacology and Therapeutics is designed to attract sufficient high-quality trainees into the discipline by providing the flexibility necessary to allow doctors in different branches of clinical medicine to undergo training in Clinical Pharmacology and Therapeutics and to provide links with an Academic training pathway. It aims to achieve this flexibility by adopting a modular structure, all trainees taking the core module but with additional modules, usually of one year's duration, from within the range of CPT special interests (e.g. Hypertension, Stroke Medicine) according to their specific training requirements.

Aims

Upon satisfactory completion of specialist training in Clinical Pharmacology and Therapeutics a doctor will be **competent** to undertake comprehensive medical practice in that specialty in a **professional** manner, unsupervised and independently and/or within a team, in keeping with the needs of the healthcare system.

Competencies, at a level consistent with practice in the specialty of Clinical Pharmacology and Therapeutics, will include the following:

- Patient care that is appropriate, effective and compassionate dealing with health problems and health promotion.
- Medical knowledge in the basic biomedical, behavioural and clinical sciences, medical ethics and medical jurisprudence and application of such knowledge in patient care.
- Interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professionals, the scientific community and the public.
- Appraisal and utilisation of new scientific knowledge to update and continuously improve clinical practice.
- The ability to function as a supervisor, trainer and teacher in relation to colleagues, medical students and other health professionals.
- Capability to be a scholar, contributing to development and research in the field of Clinical Pharmacology and Therapeutics.
- Professionalism.
- Knowledge of public health and health policy issues: awareness and responsiveness in the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, the practice of cost-effective health care, health economics and resource allocations.
- Ability to understand health care and identify and carry out system-based improvement of care.

Professionalism

Being a good doctor is more than technical competence. It involves values – putting patients first, safeguarding their interests, being honest, communicating with care and personal attention, and being committed to lifelong learning and continuous improvement. Developing and maintaining values are important; however, it is only through putting values into action that doctors demonstrate the continuing trustworthiness with the public legitimately expect. According to the Medical Council, Good Professional Practice involves the following aspects:

- Effective communication
- Respect for autonomy and shared decision-making
- Maintaining confidentiality
- Honesty, openness and transparency (especially around mistakes, near-misses and errors)
- Raising concerns about patient safety
- Maintaining competence and assuring quality of medical practice

Entry Requirements

Applicants for Higher Specialist Training (HST) in Clinical Pharmacology and Therapeutics must have a certificate of completion Basic Specialist Training (BST) in General Internal Medicine and obtained the MRCPI.

Entrants who have completed BST in other specialties may also be considered. Other entrants could be considered with appropriate higher examinations.

Those who do not hold a BST certificate and MRCPI must provide evidence of equivalency.

A period of experience in Clinical Pharmacology and Therapeutics at Senior House Officer Grade is considered desirable before entry to HST, although not essential.

Entry on the training programme is at year 1. Deferrals are not allowed on entry to Higher Specialist Training.

Duration and Organisation of Training

Whilst the curriculum is competency-based, the duration of training must meet the European Minimum of four years for full time specialty training adjusted accordingly for flexible training. Therefore the duration of HST in Clinical Pharmacology & Therapeutics and General Internal Medicine is five years, one year of which **may** be gained from a period of full-time research.

Trainees must spend the first two years of training in clinical posts in Ireland before undertaking any period of research or Out of Programme Clinical Experience (OCPE). The earlier years of training will usually be directed towards acquiring a broad general experience of Clinical Pharmacology and Therapeutics under appropriate supervision. An increase in the content of hands-on experience follows naturally, and, as confidence is gained and abilities are acquired, the trainee will be encouraged to assume a greater degree of responsibility and independence.

Trainees on HST programme in Clinical Pharmacology and Therapeutics are given a rotation of posts at the start of the programme. Each rotation will provide the trainee with experience in different hospitals so as to acquire the broad range of training required. A degree of flexibility to meet the individuals training needs is possible especially towards the end of the training programme following discussion with the NSDs.

Generic knowledge, skills and attitudes support competencies which are common to good medical practice in all the medical and related specialties. It is intended that all Specialist Registrars should fulfil those competencies during Higher Specialist Training. No time-scale of acquisition is offered, but failure to make progress towards meeting these important objectives **at an early stage** would cause concern about a Specialist Registrar's suitability and ability to become independently capable as a specialist.

Core CPT Module

- Critical evaluation of literature relevant to CPT including basic pharmacology, toxicology and phase I, II, III and IV clinical trials and meta-analyses
- Understanding uses and limitations of basic statistical tests as related to analysis of pharmacological data
- Use of knowledge of mechanisms of drug action to extrapolate likely effect of new drugs, doses and combinations
- Use of knowledge of pharmacological principles to use, devise or advise on appropriate dosing regimens to optimise drug effects.
- Prescribe rationally in individual patients
- Collaborate in devising policies for rational, safe, and cost-effective prescribing.
- Understand and work within the current regulatory framework
- Understand and influence what determines the pattern of use of medicines in populations.
- Anticipate (and hence minimise), detect, manage, report and analyse adverse drug reactions (ADR).
- Anticipate (and hence minimise), detect, manage, report possible drug prescription or administration errors.
- Advise on cases of overdose or poisoning, and to manage such cases as are relevant to their clinical speciality (e.g. Children for Paediatricians)

Industrial Experience

Some trainees seeking accreditation in Clinical Pharmacology and Therapeutics may be planning a career in the Pharmaceutical Industry. The entry criteria and duration of Higher Medical Training will be the same for these trainees, though approved experience in the Pharmaceutical Industry can be counted towards the overall requirement.

Training Programme

The training programme offered will provide opportunities to fulfil all the requirements of the curriculum of training for Clinical Pharmacology and Therapeutics in accredited training hospitals. Each post within the programme will have a named trainer/educational supervisor and programmes will be under the direction of the National Specialty Director(s) for Clinical Pharmacology and Therapeutics. Programmes will be as flexible as possible consistent with curricular requirements, for example to allow the trainee to develop a sub-specialty interest.

The experience gained through rotation around different departments is recognised as an essential part of HST. It is preferable that a SpR does not remain in the same unit for longer than 2 years of clinical training or with the same trainer for more than 1 year. However, given that Clinical Pharmacology and Therapeutics is a small speciality, there is flexibility in this respect and a trainee will mostly likely spend 2 years with the same trainer.

Where an essential element of the curriculum is missing from a programme, access to it should be arranged, by day release for example, or if necessary by secondment.

Dual Specialty Training

GIM training is expected to be completed in the first 3 years of the programme. One of these years is a GIM specific year. During the other 2 years trainees must complete their GIM training as per the minimum requirements.

Each post must include general medicine on-call commitment for acute unscheduled/emergency care with attendance at relevant post-take rounds.

Acute Medicine:

There must be evidence of direct supervision of the activity of the more junior members of the “on-take” team and a minimum of 10 (480 per year) new acute medical assessments and admissions during the 24-hour period are expected. In addition, the trainee will be expected to have ongoing care/responsibility for a proportion of the patients for the duration of the clinical inpatient journey as well as follow up post discharge. In this capacity you should develop skills in non-technical aspects of care including discharge planning and end of life care.

Inpatient Responsibilities:

The trainee will have front line supervisory responsibilities for general medical inpatients. This will require supervising the activities (e.g. being available for advice) of the more junior members (SHO/Intern) of the clinical team at all times. In addition to personal ward rounds, a minimum of two ward rounds with the consultant each week is expected for educational experience. Ongoing responsibility for shared care of the team’s inpatients whilst in the ITU/HDU/CCU is also essential. If this is not possible in a particular hospital/training institution then a period of secondment to the appropriate unit will be required.

Outpatient Responsibilities:

The trainee is expected to have personal responsibilities for the assessment and review of general medicine outpatients with a minimum of at least one consultant led GIM clinic per week. The trainee should assess new patients; access to consultant opinion/supervision during the clinic is essential. In the event of clinics being predominantly subspecialty orientated, a trainee must attend other clinics to ensure comprehensive General Internal Medicine training.

General Education in Training:

The trainee is expected to spend four hours per week, in formal general professional education for certification of training. In the types of experience noted below, time must be fairly distributed between GIM and the other speciality in dual training programmes. Review of all these activities will form part of the training record for each trainee.

All trainees are required to undergo training in management. This will take the form of day-to-day involvement in the administration of the team/firm and must include attendance at a management course during the training period.

Trainees are expected to be actively involved in audit throughout their training and should have experience of running the unit's audit programme and presenting results of projects at audit meetings. They should also regularly attend other activities, journal clubs, X-ray conferences, pathology meetings etc.

Trainees should be expected to show evidence of the development of effective communication skills. This can be assessed from taking part in formal case presentations or in giving lectures/seminars to other staff or research/audit presentations at unit meetings.

All trainees must have a current ACLS certificate throughout their HST.

Procedures:

During training the trainee should acquire those practical skills that are needed in the management of medical emergencies, particularly those occurring out of normal working hours. Some exposure to these skills may have occurred during the period of BST but experience must be consolidated and competencies reviewed during HST. The procedures, with which the trainee must be familiar and show competencies in, either as essential to acquire, or as additional procedural skills i.e. desirable to acquire.

Essential & Additional Experience:

The trainee will be expected to have had experience of/be familiar with the management of a wide range of cases presenting to hospitals as part of an unselected acute medical emergency "take". Whilst trainees will not need to be expert in all of these areas they will be expected to be able to plan and interpret the results of immediate investigations, initiate emergency therapy and triage cases to the appropriate specialist care. These emergency situations have been considered under each specialty section and are indicative of what should be covered but are not prescriptive. It should form the basis of regular discussions between the trainee and trainers as training progresses. The various clinical situations listed for experience have been divided into those, which are considered "essential" and others, which are "additional".

Assessment Process

The methods used to assess progress through training must be valid and reliable. The Curriculum has been re-written, describing the levels of competence which can be recognised. The assessment grade will be awarded on the basis of direct observation in the workplace by consultant supervisors. Time should be set aside for appraisal following the assessment e.g. of clinical presentations, case management, observation of procedures. As progress is being made, the lower levels of competence will be replaced progressively by those that are higher. Where the grade for an item is judged to be deficient for the stage of training, the assessment should be supported by a detailed note which can later be referred to at the Annual Evaluation Meeting. The assessment of training may utilise the Mini-CEX, DOPS and Case Based Discussions (CBD) methods adapted for the purpose. These methods of assessment have been made available by HST for use at the discretion of the NSD and nominated trainer. They are offered as a means of providing the trainee with attested evidence of achievement in certain areas of the Curriculum e.g. competence in procedural skills, or in generic components. Assessment will also be supported by the trainee's portfolio of achievements and performance at relevant meetings, presentations, audit, in tests of knowledge, attendance at courses and educational events.

Generic Components

This chapter covers the generic components which are relevant to HST trainees of all specialties but with varying degrees of relevance and appropriateness, depending on the specialty.

As such, this chapter needs to be viewed as an appropriate guide of the level of knowledge and skills required from all HST trainees with differing application levels in practice.

Good Professional Practice

Objective: Trainees must appreciate that medical professionalism is a core element of being a good doctor and that good medical practice is based on a relationship of trust between the profession and society, in which doctors are expected to meet the highest standards of professional practice and behaviour.

Medical Council Domains of Good Professional Practice: Relating to Patients, Communication and Interpersonal Skills, Professionalism, Patient Safety and Quality of Patient Care.

KNOWLEDGE

Effective Communication

- How to listen to patients and colleagues
- The principles of open disclosure
- Knowledge and understanding of valid consent
- Teamwork
- Continuity of care

Ethics

- Respect for autonomy and shared decision making
- How to enable patients to make their own decisions about their health care
- How to place the patient at the centre of care
- How to protect and properly use sensitive and private patient information in accordance with data protection legislation and how to maintain confidentiality
- The judicious sharing of information with other healthcare professionals where necessary for care following Medical Council Guidelines
- Maintaining competence and assuring quality of medical practice
- How to work within ethical and legal guideline when providing clinical care, carrying research and dealing with end of life issues

Honesty, openness and transparency (mistakes and near misses)

- Preventing and managing near misses and adverse events.
- When and how to report a near miss or adverse event
- Incident reporting; root cause and system analysis
- Understanding and learning from errors
- Understanding and managing clinical risk
- Managing complaints
- Following open disclosure practices
- Knowledge of national policy and National Guidelines on Open Disclosure

Raising concerns about patient safety

- Safe working practice, role of procedures and protocols in optimal practice
- The importance of standardising practice through the use of checklists, and being vigilant
- Safe healthcare systems and provision of a safe working environment
- Awareness of the multiple factors involved in failures
- Knowledge and understanding of Reason's Swiss cheese model
- Understanding how and why systems break down and why errors are made
- Health care errors and system failures
- Human and economic costs in system failures
- The important of informing a person of authority of systems or service structures that may lead to unsafe practices which may put patients, yourself or other colleagues at risk
- Awareness of the Irish Medical Councils policy on raising concerns about safety in the environment in which you work

SKILLS

- Effective communication with patients, families and colleagues
- Co-operation and collaboration with colleagues to achieve safe and effective quality patient care
- Being an effective team player
- Ethical and legal decision making skills
- Minimising errors during invasive procedures by developing and adhering to best-practice guidelines for safe surgery
- Minimising medication errors by practicing safe prescribing principles
- Ability to learn from errors and near misses to prevent future errors
- Managing errors and near-misses
- Using relevant information from complaints, incident reports, litigation and quality improvement reports in order to control risks
- Managing complaints
- Using the Open Disclosure Process Algorithm

ASSESSMENT & LEARNING METHODS

- Consultant feedback at annual assessment
- Workplace based assessment e.g. Mini-CEX, DOPS, CBD
- Educational supervisor's reports on observed performance (in the workplace): prioritisation of patient safety in practice
- RCPI HST Leadership in Clinical Practice
- RCPI Ethics programmes
- Medical Council Guide to Professional Conduct and Ethics
- Reflective learning around ethical dilemmas encountered in clinical practice
- Quality improvement methodology course - recommended

Infection Control

Objective: To be able to appropriately manage infections and risk factors for infection at an institutional level, including the prevention of cross-infections and hospital acquired infection

Medical Council Domains of Good Professional Practice: Patient Safety and Quality of Patient Care; Management (including Self-Management).

KNOWLEDGE

Within a consultation

- The principles of infection control as defined by the HIQA
- How to minimise the risk of cross-infection during a patient encounter by adhering to best practice guidelines available, including the 5 Moments for Hand Hygiene guidelines
- The principles of preventing infection in high risk groups e.g. managing antibiotic use to prevent *Clostridium difficile*
- Knowledge and understanding of the local antibiotic prescribing policy
- Awareness of infections of concern, e.g. MRSA, *Clostridium difficile*
- Best practice in isolation precautions
- When and how to notify relevant authorities in the case of notifiable infectious disease
- Understanding the increased risk of infection to patients in surgery or during an invasive procedure and adhering to guidelines for minimising infection in such cases
- The guidelines for needle-stick injury prevention and management

During an outbreak

- Guidelines for minimising infection in the wider community in cases of communicable diseases and how to seek expert opinion or guidance from infection control specialists where necessary
- Hospital policy/seeking guidance from occupational health professional regarding the need to stay off work/restrict duties when experiencing infections the onward transmission of which might impact on the health of others

SKILLS

- Practicing aseptic techniques and hand hygiene
- Following local and national guidelines for infection control and management
- Prescribing antibiotics according to antibiotic guidelines
- Encouraging staff, patients and relatives to observe infection control principles
- Communicating effectively with patients regarding treatment and measures recommended to prevent re-infection or spread
- Collaborating with infection control colleagues to manage more complex or uncommon types of infection including those requiring isolation e.g. transplant cases, immunocompromised host
- In the case of infectious diseases requiring disclosure:
 - Working knowledge of those infections requiring notification
 - Undertaking notification promptly
 - Collaborating with external agencies regarding reporting, investigating and management of notifiable diseases
 - Enlisting / requiring patients' involvement in solving their health problems, providing information and education
 - Utilising and valuing contributions of health education and disease prevention and infection control to health in a community

ASSESSMENT & LEARNING METHODS

- Consultant feedback at annual assessment
- Workplace based assessment e.g. Mini-CEX, DOPS, CBD
- Educational supervisor's reports on observed performance (in the workplace): practicing aseptic techniques as appropriate to the case and setting, investigating and managing infection, prescribing antibiotics according to guidelines
- Completion of infection control induction in the workplace
- Personal Protective Equipment Training Course (In hospital)

Self-Care and Maintaining Well-Being

Objectives:

1. To ensure that trainees understand how their personal histories and current personal lives, as well as their values, attitudes, and biases affect their care of patients so that they can use their emotional responses in patient care to their patients' benefit
2. To ensure that trainees care for themselves physically and emotionally, and seek opportunities for enhancing their self-awareness and personal growth

Medical Council Domains of Good Professional Practice: Patient Safety and Quality of Patient Care, Relating to Patients, Communication and Interpersonal Skills, Collaboration and Teamwork, Management (including self-management).

KNOWLEDGE

- Self-awareness including preferences and biases
- Personal psychological strengths and limitations
- Understand how personality characteristics, such as need for approval, judgemental tendencies, needs for perfection and control etc., affect relationships with patients and others
- Knowledge of core beliefs, ideals, and personal philosophies of life, and how these relate to own goals in medicine
- Know how family-of-origin, race, class, religion and gender issues have shaped own attitudes and abilities to discuss these issues with patients
- Understand the difference between feelings of sympathy and feelings of empathy
- Know the factors between a doctor and patient that enhance or interfere with abilities to experience and convey empathy
- Understanding of own attitudes toward uncertainty and risk taking and own need for reassurance
- How own relationships with certain patients can reflect attitudes toward paternalism, autonomy, benevolence, non-maleficence and justice
- Recognise own feelings in straightforward and complex patient-doctor interactions
- Recognising the symptoms of stress and burn out

SKILLS

- Exhibiting empathy and showing consideration for all patients, their impairments and attitudes irrespective of cultural and other differences
- Ability to create boundaries with patients that allow for therapeutic alliance
- Challenge authority appropriately from a firm sense of own values and integrity and respond appropriately to situations that involve abuse, unethical behaviour and coercion
- Recognise own limits and seek appropriate support and consultation
- Work collaboratively and effectively with colleagues and other members of health care teams
- Manage effectively commitments to work and personal lives, taking the time to nurture important relationship and oneself
- Ability to recognise when falling behind and adjusting accordingly
- Demonstrating the ability to cope with changing circumstances, variable demand, being prepared to re-prioritise and ask for help
- Utilising a non-judgemental approach to patient's problem
- Recognise the warning signs of emotional ill-health in self and others and be able to ask for appropriate help
- Commitment to lifelong process of developing and fostering self-awareness, personal growth and well being
- Be open to receiving feedback from others as to how attitudes and behaviours are affecting their care of patients and their interactions with others
- Holding realistic expectations of own and of others' performance, time-conscious, punctual
- Valuing the breadth and depth of experience that can be accessed by associating with professional colleagues

ASSESSMENT & LEARNING METHODS

- On-going supervision
- RCPI Ethics programmes
- Wellness Matters Course
- RCPI HST Leadership in Clinical Practice course

Communication in Clinical and Professional Setting

Objective: To demonstrate the ability to communicate effectively and sensitively with patients, their relatives, carers and with professional colleagues in different situations.

Medical Council Domains of Good Professional Practice: Relating to Patients; Communication and Interpersonal Skills.

KNOWLEDGE

Within a consultation

- How to effectively listen and attend to patients
- How to structure an interview to obtain/convey information; identify concerns, expectations and priorities; promote understanding, reach conclusions; use appropriate language.
- How to empower the patient and encourage self-management

Difficult circumstances

- Understanding of potential areas for difficulty and awkward situations
- How to negotiate cultural, language barriers, dealing with sensory or psychological and/or intellectual impairments and how to deal with challenging or aggressive behaviour
- Knowing how and when to break bad news
- How to communicate essential information where difficulties exist, how to appropriately utilise the assistance of interpreters, chaperones, and relatives.
- How to deal with anger and frustration in self and others
- Selecting appropriate environment; seeking assistance, making and taking time

Dealing with professional colleagues and others

- How to communicate with doctors and other members of the healthcare team
- How to provide a concise, written, verbal, or electronic, problem-orientated statement of facts and opinions
- The legal context of status of records and reports, of data protection confidentiality
- Freedom of Information (FOI) issues
- Understanding of the importance of legible, accessible, records to continuity of care
- Knowing when urgent contact becomes necessary and the appropriate place for verbal, telephone, electronic, or written communication
- Recognition of roles and skills of other health professionals
- Awareness of own abilities/limitations and when to seek help or give assistance, advice to others; when to delegate responsibility and when to refer

Maintaining continuity of care

- Understanding the relevance of continuity of care to outcome, within and between phases of healthcare management
- The importance of completion of tasks and documentation, e.g. before handover to another team, department, specialty, including identifying outstanding issues and uncertainties
- Knowledge of the required attitudes, skills and behaviours which facilitate continuity of care including, being available and contactable, alerting others to avoid potential confusion or misunderstanding through communications failure

Giving explanations

- The importance of possessing the facts, and of recognising uncertainty and conflicting evidence on which decisions have to be based
- How to secure and retain attention avoiding distraction
- Understanding how adults receive information best, the relative value of the spoken, written, visual means of communication, use of reinforcement to assist retention
- Knowledge of the risks of information overload
- Tailoring the communication of information to the level of understanding of the recipient
- Strategies to achieve the level of understanding necessary to gain co-operation and partnership; compliance, informed choice, acceptance of opinion, advice, recommendation

Responding to complaints

- Value of hearing and dealing with complaints promptly; the appropriate level, the procedures (departmental and institutional); sources of advice, and assistance available
- The importance of obtaining and recording accurate and full information, seeking confirmation from multiple sources
- Knowledge of how to establish facts, identify issues and respond quickly and appropriately to a complaint received

SKILLS

- Ability to appropriately elicit facts, using a mix of open and closed-ended questions
- Using “active listening” techniques such as nodding and eye contact
- Giving information clearly, avoiding jargon, confirming understanding, ability to encourage co-operation, compliance; obtaining informed consent
- Showing consideration and respect for other’s culture, opinions, patient’s right to be informed and make choices
- Respecting another’s right to opinions and to accept or reject advice
- Valuing perspectives of others contributing to management decisions
- Conflict resolution
- Dealing with complaints
- Communicating decisions in a clear and thoughtful manner
- Presentation skills
- Maintaining (legible) records
- being available, contactable, time-conscious
- Setting realistic objectives, identifying and prioritising outstanding problems
- Using language, literature (e.g. leaflets) diagrams, educational aids and resources appropriately
- Establish facts, identify issues and respond quickly and appropriately to a complaint received
- Accepting responsibility, involving others, and consulting appropriately
- Obtaining informed consent
- Discussing informed consent
- Giving and receiving feedback

ASSESSMENT & LEARNING METHODS

- Mastering Communication course (Year 1)
- Consultant feedback at annual assessment
 - Workplace based assessment e.g. Mini-CEX, DOPS, CBD
 - Educational supervisor’s reports on observed performance (in the workplace): communication with others e.g. at handover. ward rounds, multidisciplinary team members
- Presentations
- RCPI Ethics programmes
- RCPI HST Leadership in Clinical Practice Course

Leadership

Objective: To have the knowledge, skills and attitudes to act in a leadership role and work with colleagues to plan, deliver and develop services for improved patient care and service delivery.

Medical Council Domains of Good Professional Practice: Patient Safety and Quality of Patient Care; Communication and Interpersonal Skill; Collaboration and Teamwork; Management (including Self-Management); Scholarship.

KNOWLEDGE

Personal qualities of leaders

- Knowledge of what leadership is in the context of the healthcare system appropriate to training level
- The importance of good communication in teams and the role of human interactions on effectiveness and patient safety

Working with others

- Awareness of own personal style and other styles and their impact on team performance
- The importance of good communication in teams and the role of human interactions on effectiveness and patient safety

Managing services

- The structure and function of Irish health care system
- Awareness of the challenges of managing in healthcare
 - Role of governance
 - Clinical directors
- Knowledge of planning and design of services
- Knowledge and understanding of the financing of the health service
 - Knowledge of how to prepare a budget
 - Defining value
 - Managing resources
- Knowledge and understanding of the importance of human factors in service delivery
 - How to manage staff training, development and education
- Managing performance
 - How to perform staff appraisal and deal effectively with poor staff performance
 - How to rewards and incentivise staff for quality and efficiency

Setting direction

- The external and internal drivers setting the context for change
- Knowledge of systems and resource management that guide service development
- How to make decisions using evidence-based medicine and performance measures
- How to evaluate the impact of change on health outcomes through ongoing service evaluation

SKILLS

- Effective communication with patients, families and colleagues
- Co-operation and collaboration with others; patients, service users, carers colleagues within and across systems
- Being an effective team player
- Ability to manage resources and people
- Managing performance and performance indicators

Demonstrating personal qualities

- Efficiently and effectively managing one-self and one's time especially when faced with challenging situations
- Continues personal and professional development through scholarship and further training and education where appropriate
- Acting with integrity and honesty with all people at all times
- Developing networks to expand knowledge and sphere of influence
- Building and maintaining key relationships
- Adapting style to work with different people and different situations
- Contributing to the planning and design of services

ASSESSMENT & LEARNING METHODS

- Mastering Communication course (Year 1)
- RCPI HST Leadership in Clinical Practice (Year 3 – 5)
- Consultant feedback at annual assessment
- Workplace based assessment e.g. Mini-CEX, DOPS, CBD
- Educational supervisor's reports on observed performance (in the workplace): on management and leadership skills
- Involvement in hospital committees where possible e.g. Division of Medicine, Drugs and Therapeutics, Infection Control etc.

Quality Improvement

Objective: To demonstrate the ability to identify areas for improvement and implement basic quality improvement skills and knowledge to improve patient safety and quality in the healthcare system.

Medical Council Domains of Good Professional Practice: Patient Safety and Quality of Patient Care; Communication and Interpersonal Skills; Collaboration and Teamwork; Management; Relating to Patients; Professionalism

KNOWLEDGE

Personal qualities of leaders

- The importance of prioritising the patient and patient safety in all clinical activities and interactions

Managing services

- Knowledge of systems design and the role of microsystems
- Understanding of human factors and culture on patient safety and quality

Improving services

- How to ensure patient safety by adopting and incorporating a patient safety culture
- How to critically evaluate where services can be improved by measuring performance, and acting to improve quality standards where possible
- How to encourage a culture of improvement and innovation

Setting direction

- How to create a 'burning platform' and motivate other healthcare professionals to work together within quality improvement
- Knowledge of the wider healthcare system direction and how that may impact local organisations

SKILLS

- Improvement approach to all problems or issues
- Engaging colleagues, patients and the wider system to identify issues and implement improvements
- Use of quality improvement methodologies, tools and techniques within every day practice
- Ensuring patient safety by adopting and incorporating a patient safety culture
- Critically evaluating where services can be improved by measuring performance, and acting to raise standards where possible
- Encouraging a culture of improvement and innovation

Demonstrating personal qualities

- Encouraging contributions and involvement from others including patients, carers, members of the multidisciplinary team and the wider community
- Considering process and system design, contributing to the planning and design of services

ASSESSMENT & LEARNING METHODS

- RCPI HST Leadership in Clinical Practice
- Consultant feedback at annual assessment
- Involvement in hospital committees where possible e.g. Division of Medicine, Drugs and Therapeutics, Infection Control etc.

Scholarship

Objective: To develop skills in personal/professional development, teaching, educational supervision and research

Medical Council Domains of Good Professional Practice: Scholarship

KNOWLEDGE

Teaching, educational supervision and assessment

- Principles of adult learning, teaching and learning methods available and strategies
- Educational principles directing assessment methods including, formative vs. summative methods
- The value of regular appraisal / assessment in informing training process
- How to set effective educational objectives and map benefits to learner
- Design and delivery of an effective teaching event, both small and large group
- Use of appropriate technology / materials

Research, methodology and critical evaluation

- Designing and resourcing a research project
- Research methodology, valid statistical analysis, writing and publishing papers
- Ethical considerations and obtaining ethical approval
- Reviewing literature, framing questions, designing a project capable of providing an answer
- How to write results and conclusions, writing and/or presenting a paper
- How to present data in a clear, honest and critical fashion

Audit

- Basis for developing evidence-based medicine, kinds of evidence, evaluation; methodologies of clinical trials
- Sources from which useful data for audit can be obtained, the methods of collection, handling data, the audit cycle
- Means of determining best practice, preparing protocols, guidelines, evaluating their performance
- The importance of re-audit

SKILLS

- Bed-side undergraduate and post graduate teaching
- Developing and delivering lectures
- Carrying out research in an ethical and professional manner
- Performing an audit
- Presentation and writing skills – remaining impartial and objective
- Adequate preparation, timekeeping
- Using technology / materials

ASSESSMENT & LEARNING METHODS

- An Introduction to Health Research (online)
- Performing audit course (online)
- Effective Teaching and Supervising Skills course (online) - recommended
- Educational Assessment Skills course - recommended
- Health Research Methods for Clinicians - recommended

Management

Objective: To understand the organisation, regulation and structures of the health services, nationally and locally, and to be competent in the use and management of information on health and health services, to develop personal effectiveness and the skills applicable to the management of staff and activities within a healthcare team.

Medical Council Domains of Good Professional Practice: Management.

KNOWLEDGE

Health service structure, management and organisation

- The administrative structure of the Irish Health Service, services provided in Ireland and their funding and how to engage with these for best results
- Department of Health, HSE and hospital management structures and systems
- The national regulatory bodies, health agencies and patient representative groups
- Understanding the need for business plans, annual hospital budgets, the relationship between the hospital and PCCC

The provision and use of information in order to regulate and improve service provision

- Methods of collecting, analysing and presenting information relevant to the health of a population and the apportionment of healthcare resources
- The common ways in which data is presented, knowing of the sources which can provide information relevant to national or to local services and publications available

Maintaining medical knowledge with a view to delivering effective clinical care

- Understanding the contribution that current, accurate knowledge can make to establishing clinical effectiveness, best practice and treatment protocols
- Knowledge of sources providing updates, literature reviews and digests

Delegation skills, empowerment and conflict management

- How to assess and develop personal effectiveness, improve negotiating, influencing and leadership skills
- How to manage time efficiently, deal with pressure and stress
- How to motivate others and operate within a multidisciplinary team

SKILLS

- Chairing, organising and participating in effective meetings
- Managing risks
- Managing time
- Delegating tasks effectively
- Managing conflicts
- Exploring, directing and pursuing a project, negotiating through the relevant departments at an appropriate level
- Ability to achieve results through an understanding of the organisation and its operation
- Ability to seek / locate information in order to define an issue needing attention e.g. to provide data relevant to a proposal for change, establishing a priority, obtaining resources
- Ability to make use of information, use IT, undertake searches and obtain aggregated data, to critically evaluate proposals for change e.g. innovative treatments, new technologies
- Ability to adjust to change, apply management, negotiating skills to manage change
- Appropriately using management techniques and seeking to improve these skills and personal effectiveness

ASSESSMENT & LEARNING METHODS

- Mastering Communication course
- Performing audit course (online)
- RCPI HST Leadership in Clinical Practice
- Annual audit
- Consultant feedback on management and leadership skills
- Involvement in hospital committees

Standards of Care

Objective: To be able to consistently and effectively assess and treat patients' problems

Medical Council Domains of Good Professional Practice: Patient Safety and Quality of Patient Care; Relating to Patients; Communication and Interpersonal Skills; Collaboration and Teamwork; Management (including Self-Management); Clinical Skills.

KNOWLEDGE

Diagnosing Patients

- How to carry out appropriate history taking
- How to appropriately examine a patient
- How to make a differential diagnosis

Investigation, indications, risks, cost-effectiveness

- The pathophysiological basis of the investigation
- Understand the clinical significance of reference ranges, positive and negative predictive value and potential risks of inappropriate tests
- The procedures for commonly used investigations, common or/and serious risks
- Understanding of the sensitivity and specificity of results, artefacts, PPV and NPV
- Understanding significance, interpreting and explaining results of investigations
- Logical approach in choosing, sequencing and prioritising investigations

Treatment and management of disease

- Natural history of diseases
- Quality of life concepts
- How to accurately assess patient's needs, prescribe, arrange treatment, recognise and deal with reactions / side effects
- How to set realistic therapeutic goals, to utilise rehabilitation services, and use palliative care approach appropriately
- Recognising that illness (especially chronic and/or incapacity) has an impact on relationships and family, having financial as well as social effects e.g. driving

Disease prevention and health education

- Screening for disease: methods, advantages and limitations
- Health promotion and support agencies; means of providing sources of information for patients
- Risk factors, preventive measures, and change strategies applicable to smoking, alcohol, drug abuse, and lifestyle
- Disease notification; methods of collection and sources of data

Notes, records, correspondence

- Functions of medical records, their value as an accurate up-to-date commentary and source of data
- An understanding of the need and appropriate use of problem-orientated discharge notes, letters, more detailed case reports, concise out-patient reports and focused reviews
- Appreciating the importance of up-to-date, easily available, accurate information, and the need for communicating promptly e.g. with primary care

Prioritising, resourcing and decision taking

- How to prioritise demands, respond to patients' needs and sequence urgent tasks
- Establishing (clinical) priorities e.g. for investigations, intervention; how to set realistic goals; understanding the need to allocate sufficient time, knowing when to seek help
- Understanding the need to complete tasks, reach a conclusion, make a decision, and take action within allocated time
- Knowing how and when to conclude

Handover

- Know what are the essential requirements to run an effective handover meeting
 - Sufficient and accurate patients information
 - Adequate time
 - Clear roles and leadership
 - Adequate IT
- Know how to prioritise patient safety
 - Identify most clinically unstable patients
 - Use ISBAR (Identify, Situation, Background, Assessment, Recommendations)
 - Proper identification of tasks and follow-ups required
 - Contingency plans in place
- Know how to focus the team on actions
 - Tasks are prioritised
 - Plans for further care are put in place
 - Unstable patients are reviewed

Relevance of professional bodies

- Understanding the relevance to practice of standards of care set down by recognised professional bodies – the Medical Council, Medical Colleges and their Faculties, and the additional support available from professional organisations e.g. IMO, Medical Defence Organisations and from the various specialist and learned societies

SKILLS

- Taking and analysing a clinical history and performing a reliable and appropriate examination, arriving at a diagnosis and a differential diagnosis
- Liaising, discussing and negotiating effectively with those undertaking the investigation
- Selecting investigations carefully and appropriately, considering (patients') needs, risks, value and cost effectiveness
- Appropriately selecting treatment and management of disease
- Discussing, planning and delivering care appropriate to patient's needs and wishes
- Preventing disease using the appropriate channels and providing appropriate health education and promotion
- Collating evidence, summarising, recognising when objective has been met
- Screening
- Working effectively with others including
 - Effective listening
 - Ability to articulate and deliver instructions
 - Encourage questions and openness
 - Leadership skills
- Ability to prioritise
- Ability to delegate effectively
- Ability to advise on and promote lifestyle change, stopping smoking, control of alcohol intake, exercise and nutrition
- Ability to assess and explain risk, encourage positive behaviours e.g. immunisation and preventive measures
- Involve patients' in solving their health problems, by providing information and education
- Availing of support provided by voluntary agencies and patient support groups, as well as expert services e.g. detoxification / psychiatric services
- Act in accordance with, up to date standards on palliative care needs assessment
- Valuing contributions of health education and disease prevention to health in a community
- Compile accurate and appropriate detailed medical notes and care reports including the results of examinations, investigations, procedures performed, sufficient to provide an accurate, detailed account of the diagnostic and management process and outcome, providing concise, informative progress reports (both written and oral)
- Transfer information in an appropriate and timely manner

- Maintaining legible records in line with the Guide to Professional Conduct and Ethics for Registered Medical Practitioners in Ireland
- Actively engaging with professional/representative/specialist bodies

ASSESSMENT & LEARNING METHODS

- Consultant feedback
- Workplace based assessment e.g. Mini-CEX, DOPS, CBD
- Educational supervisor's reports on observed performance (in the workplace)
- Annual Audit
- Medical Council Guide to Professional Conduct and Ethics

Dealing with & Managing Acutely Ill Patients in Appropriate Specialties

Objectives: To be able to assess and initiate management of patients presenting as emergencies, and to appropriately communicate the diagnosis and prognosis. Trainees should be able to recognise the critically ill and immediately assess and resuscitate if necessary, formulate a differential diagnosis, treat and/or refer as appropriate, elect relevant investigations and accurately interpret reports.

Medical Council Domains of Good Professional Practice: Patient Safety and Quality of Patient Care, Clinical Skills.

KNOWLEDGE

Management of acutely ill patients with medical problems

- Presentation of potentially life-threatening problems
- Indications for urgent intervention, the additional information necessary to support action (e.g. results of investigations) and treatment protocols
- When to seek help, refer/transfer to another specialty
- ACLS protocols
- Ethical and legal principles relevant to resuscitation and DNAR in line with National Consent Policy
- How to manage acute medical intake, receive and refer patients appropriately, interact efficiently and effectively with other members of the medical team, accept/undertake responsibility appropriately
- Management of overdose
- How to anticipate / recognise, assess and manage life-threatening emergencies, recognise significantly abnormal physiology e.g. dysrhythmia and provide the means to correct e.g. defibrillation
- How to convey essential information quickly to relevant personnel: maintaining legible up-to-date records documenting results of investigations, making lists of problems dealt with or remaining, identifying areas of uncertainty; ensuring safe handover

Managing the deteriorating patient

- How to categorise a patients' severity of illness using Early Warning Scores (EWS) guidelines
- How to perform an early detection of patient deterioration
- How to use a structured communication tool (ISBAR)
- How to promote an early medical review, prompted by specific trigger points
- How to use a definitive escalation plan

Discharge planning

- Knowledge of patient pathways
- How to distinguish between illness and disease, disability and dependency
- Understanding the potential impact of illness and impairment on activities of daily living, family relationships, status, independence, awareness of quality of life issues
- Role and skills of other members of the healthcare team, how to devise and deliver a care package
- The support available from other agencies e.g. specialist nurses, social workers, community care
- Principles of shared care with the general practitioner service
- Awareness of the pressures/dynamics within a family, the economic factors delaying discharge but recognise the limit to benefit derived from in-patient care

SKILLS

- BLS/ACLS (or APLS for Paediatrics)
- Dealing with common medical emergencies
- Interpreting blood results, ECG/Rhythm strips, chest X-Ray, CT brain
- Giving clear instructions to both medical and hospital staff
- Ordering relevant follow up investigations
- Discharge planning, including complex discharge
- Knowledge of HIPE (Hospital In-Patient Enquiry)
- Multidisciplinary team working
- Communication skills
- Delivering early, regular and on-going consultation with family members (with the patient's permission) and primary care physicians
- Remaining calm, delegating appropriately, ensuring good communication
- Attempting to meet patients'/ relatives' needs and concerns, respecting their views and right to be informed in accordance with Medical Council Guidelines
- Establishing liaison with family and community care, primary care, communicate / report to agencies involved
- Demonstrating awareness of the wide ranging effects of illness and the need to bridge the gap between hospital and home
- Categorising a patients' severity of illness
- Performing an early detection of patient deterioration
- Use of structured communication tools (e.g. ISBAR)

ASSESSMENT & LEARNING METHODS

- ACLS course
- Record of on call experience
- Mini-CEX (acute setting)
- Case Based Discussion (CBD)
- Consultant feedback

Therapeutics and Safe Prescribing

Objective: To progressively develop ability to prescribe, review and monitor appropriate therapeutic interventions relevant to clinical practice in specific specialities including non-pharmacological therapies and preventative care.

Medical Council Domains of Good Professional Practice: Patient Safety and Quality of Patient Care.

KNOWLEDGE

- Pharmacology, therapeutics of treatments prescribed, choice of routes of administration, dosing schedules, compliance strategies; the objectives, risks and complications of treatment cost-effectiveness
- Indications, contraindications, side effects, drug interaction, dosage and route of administration of commonly used drugs
- Commonly prescribed medications
- Adverse drug reactions to commonly used drugs, including complementary medicines
- Identifying common prescribing hazards
- Identifying high risk medications
- Drugs requiring therapeutic drug monitoring and interpretation of results
- The effects of age, body size, organ dysfunction and concurrent illness or physiological state e.g. pregnancy on drug distribution and metabolism relevant to own practice
- Recognising the roles of regulatory agencies involved in drug use, monitoring and licensing e.g. IMB, and hospital formulary committees
- Procedure for monitoring, managing and reporting adverse drug reaction
- Effects of medications on patient activities including potential effects on a patient's fitness to drive
- The role of The National Medicines Information Centre (NMIC) in promoting safe and efficient use of medicine
- Differentiating drug allergy from drug side effects
- Know the difference between an early and late drug allergy, and drug side-effects
- Good Clinical Practice guidelines for seeing and managing patients who are on clinical research trials
- Best practice in the pharmacological management of cancer pain
- The management of constipation in adult patients receiving palliative care

SKILLS

- Writing a prescription in line with guidelines
- Appropriately prescribing for the elderly, children and pregnant and breast feeding women
- Making appropriate dose adjustments following therapeutic drug monitoring, or physiological change (e.g. deteriorating renal function)
- Reviewing and revising patients' long term medications
- Anticipating and avoiding defined drug interactions, including complementary medicines
- Advising patients (and carers) about important interactions and adverse drug effects including effects on driving
- Providing comprehensible explanations to the patient, and carers when relevant, for the use of medicines
- Being open to advice and input from other health professionals on prescribing
- Participating in adverse drug event reporting
- Take and record an accurate drug allergy history and history of previous side effects

ASSESSMENT & LEARNING METHODS

- Consultant feedback
- Workplace based assessment e.g. Mini-CEX, DOPS, CBD
- Educational supervisor's reports on observed performance (in the workplace): prioritisation of patient safety in prescribing practice
- Guidance for health and social care providers - Principles of good practice in medication reconciliation (HIQA)

General Internal Medicine Section

Objective: On completion of Higher Specialist Training the trainee will be able to identify and treat immediate life threatening causes of common medical presentations, form a differential diagnosis for non-life threatening cases and effectively manage the patient including further investigation and appropriate referral. They will have acquired a broad range of procedural and clinical skills to manage diverse presentations.

Assessment and Learning Methods

Learning opportunities during HST are through:

- Self-Directed Learning
- Attendance at Study days
- Participation in In-house activities
- Unselected acute on call
- General Medicine outpatient clinics
- Department education sessions (black box, journal club, tutorials)
- Completion of Required courses
- Attendance at additional learning events such as recommended courses and masterclasses

Progress is assessed through:

- Case Based Discussion
- ePortfolio
- Annual assessment
- DOPS

In the Acute setting

During the course of HST the trainee will encounter common acute presentations and demonstrate the following competencies:

- Recognising and assessing urgency
- Stabilising the patient
- Prioritising
 - Tasks
 - Investigations
- Managing co-existing morbidities
- Making appropriate referrals
- Decision making and appropriate delegation

The presentations listed in this section represent the most common acute presentations and conditions currently seen in Irish hospitals, accounting for over 95% of admissions. It is expected that HST trainees in general internal medicine will have a comprehensive knowledge of, and be able to provide a differential diagnosis for, these conditions.

Presentations

1. Shortness of breath
2. Cough
3. Chest Pain
4. Blackout/ Collapse/ Dizziness
5. The frail older patient in the acute setting
6. Abdominal Pain
7. Fever
8. Alcohol and substance dependence or withdrawal
9. Falls and Decreased mobility
10. Weakness and Paralysis
11. Headache
12. Limb Pain and/or Swelling
13. Nausea and Vomiting
14. Seizure
15. Diarrhoea
16. Delirium/Acute confusion
17. Acute Psychological illness
18. Palpitations
19. Hepatitis or Jaundice
20. Gastrointestinal Bleeding
21. Haemoptysis
22. Rash
23. Acute Back Pain
24. Poisoning and Drug Overdose
25. Hyper-glycaemia

Emergency management

Recognising and managing emergency cases including:

- Acute Coronary Syndrome
- Acute Kidney Injury
- Acute Respiratory Failure
- Acute Seizure
- Anaphylaxis / Angioedema
- Cardio-respiratory arrest
- Critical electrolyte abnormalities (calcium, sodium, potassium)
- Hypo- or Hyperglycaemia
- Sepsis and septic shock
- Stroke/ TIA
- The unconscious patient
- Unstable hypotensive patient

Skills and Knowledge in the General Medicine Setting

On completion of HST the trainee should know life threatening causes, clinical feature, classifications, investigations and management, including indications for urgent referral, for common general medicine presentations. The following outlines commonly associated features, causes and/or routes of investigation for these presentations, both acutely and for ongoing case management, the trainee is expected to know and the competencies they are expected to demonstrate.

When a patient presents with a general medicine complaint the trainee should demonstrate an ability to:

- Assess their signs and symptoms; formulating a differential diagnosis
 - Take history as part of an investigation
 - Undertake primary assessment
 - Recognise and assess urgency
 - Undertake secondary assessment
- Initiate appropriate investigations
 - Interpret results for common investigations
- Initiate appropriate treatment, including stabilising the patient where necessary
- Manage co-existing morbidities
- Manage on-going cases including
 - confirming a diagnosis for those not requiring urgent referral
 - assessing response to initial treatment
 - recognising signs to escalate management when needed
- Appropriately refer based on:
 - Response to treatment
 - Local guidelines
 - Culture
 - Self-awareness of their own knowledge and ability
 - Services available
- Provide ongoing management of the case

Shortness of breath

When a patient presents with shortness of breath a trainee should demonstrate knowledge of the clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for common causes.

- Life threatening causes of breathlessness
 - Airway Obstruction
 - Acute severe asthma
 - Acute exacerbation of COPD
 - Pulmonary oedema
 - Tension pneumothorax
 - Acute presentations of Ischaemic heart disease
 - Acute severe left ventricular failure
 - Dysrhythmia
 - Pulmonary embolus
 - Cardiac tamponade
 - Metabolic acidosis

Cough

When a patient presents a cough a trainee should demonstrate knowledge of the clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Common causes of acute cough
 - Viral and Pertussis type cough
 - Acute bronchitis
 - Pneumonia
 - Tuberculosis
 - Lung cancer
 - Understand the relevance of subacute and chronic cough
 - Common causes (Asthma, Upper airway, GORD)
 - When to refer for assessment of lung cancer
 - Consideration of Interstitial lung disease

Chest Pain

When a patient presents with chest pain a trainee should demonstrate knowledge of the clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for common causes.

- Life threatening causes of chest pain
 - Myocardial infarction
 - Dissecting aortic aneurysm
 - Pulmonary emboli
 - Tension pneumothorax
 - Oesophageal rupture
- Clinical features of:
 - Cardiac chest pain
 - Chest pain caused by respiratory disease and oesophageal rupture
 - Chest pain caused by gastrointestinal disease
 - Chest wall pain
 - Functional chest pain

Blackout / Collapse / Dizziness

When a patient blacks out, collapses or presents with dizziness a trainee should demonstrate that they know the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Stroke
 - Cerebral infarction
 - Primary intracerebral haemorrhage
 - Subarachnoid haemorrhage
- Syncope
 - Cardiac causes (arrhythmia, cardiogenic shock)
 - Vasovagal syncope
 - Postural hypotension (e.g., drugs, neurocardiac, autonomic)
 - Localised vascular disease (posterior circulation)
 - Metabolic causes (e.g., hypoglycaemia)
- Seizures and epilepsy

Management of the frail older patient in the acute setting

When a frail older patient presents a trainee should demonstrate knowledge of the appropriate approach to assessment, risk factors, appropriate investigations and necessary management, including indications for urgent referral, for this population.

- Understand the broad differential diagnosis and management of complex multi-morbid illness in older patients
- Approach to investigation and management of recurrent Falls
- Non-pharmacological and pharmacological management of behavioural complications of dementia
- Investigation of causes, non-pharmacological and pharmacological management of Delirium
- Polypharmacy and inappropriate prescribing in older patients (e.g. renal dose adjustment)
- Medical management of nursing home residents- identifying aspiration risk
- Palliative care and pain management in the acute setting
- Acute stroke thrombolysis delivery and criteria for referral for intravascular intervention
- Completion of NIHSS stroke scale

Abdominal Pain

When a patient presents with abdominal pain a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Initial assessment of abdominal pain
- Differential Diagnosis:
 - Intra-abdominal
 - Gastrointestinal
 - Vascular (aneurysm, ischemia)
 - Urological
 - Gynaecological
 - Extraabdominal causes of pain
- Ability to identify and initiate management of life threatening conditions causes of abdominal pain
- Indications for surgical consultation and urgent referral
- Identifying constipation and urinary retention in older patients

Fever

When a patient presents with fever a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Recognize the symptoms and signs of sepsis
- Identify common causes of fever
 - Infection
 - Non-infectious including PE, Drugs, vasculitis,
- Delivery of initial management of septic patient
- Knowledge of the choice of empiric and infection targeted antibiotics

Alcohol and substance dependence or withdrawal

When a patient presents with dependence or withdrawal a trainee should demonstrate that they know the classifications and necessary management, including indications for referral.

- Recognition
- Psychosocial dysfunction
- Autonomic disturbances
- Stress and panic disorders
- Insomnia and sleep disturbance
- Understand the role of psychiatrist and referral to rehabilitation services

Falls and Decreased mobility

When a patient falls or presents with decreased mobility a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Common medical and social causes of falls in medical patients
- Complications of falls
 - Fractures including the neck of the femur
 - Intracranial injury
 - Rib fracture and pneumothorax
 - Loss of mobility and independence

Weakness and Paralysis

When a patient presents with weakness or paralysis a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Stroke/ space occupying lesion
- Spinal cord injury
- Underlying neurological causes: e.g. multiple sclerosis, Guillain-Barre syndrome
- Infections and disease causing weakness

Headache

When a patient presents with headache a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Clinical classifications of headache
- Headache with altered neurological and focal signs
- Headache with features suggestive of raised intracranial pressure
- Headache with papilloedema
- Headache with fever
- Headache with extracranial signs
- Headache with no abnormal signs
- Drugs and toxins

Limb Pain and/or Swelling

When a patient presents with limb pain or swelling a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- As a result of injury
- As a result of an underlying medical condition
 - Undifferentiated inflammatory arthritis

Nausea and Vomiting

When a patient with nausea and vomiting a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Understanding of common causes
 - Abdominal
 - Acute Gastroenteritis
 - PUD
 - Pancreatitis
 - Acute hepatitis
 - Bowel obstruction
 - Central Causes (CNS)
 - Poisoning and Medications
- Management
 - Identification of underlying cause
 - Control of symptoms
 - Treating dehydration

Seizure

When a patient presents with seizures a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Causes
 - Unprovoked seizures/epilepsy
 - Seizures associated with metabolic, toxic and system illness
 - Cerebral hypoxia
 - Seizures associated with drugs and toxic substances
- Management
 - Emergency supportive treatment
 - Anticonvulsant treatment
 - Work up of first presentation with seizure
 - Understand driving implications for patients with seizures

Diarrhoea

When a patient presents with diarrhoea a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Classification
 - Osmotic
 - Secretary
 - Exudative
- Causes
 - Infectious
 - Inflammatory
 - Ischemic
 - Malignant
- Complications
- Management
 - Acute management
 - Knowledge of appropriate investigations
 - Recognition of associated complications
 - Role of antibiotics
 - When to refer to gastroenterology.

Delirium/Acute confusion

When a patient presents with delirium or acute confusion a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Clinical features of acute confused state- differentiating delirium, dementia, depression and psychosis
- Causes of delirium
- Use of screening instruments for delirium and/or cognitive impairment
- Clinical features of acute delirium
- Clinical features of acute functional psychosis
- Causes of confused state associated with alcohol abuse- delirium tremens, Wernicke's encephalopathy
- Drug induced/related confusion/delirium
- Bacterial meningitis, Viral encephalitis
- Subarachnoid haemorrhage/ subdural haematoma

Social issues

When a patient presents with social issues a trainee should demonstrate knowledge of the appropriate approach to assessment, risk factors, appropriate investigations and necessary management, including indications for urgent referral, for this population.

- Managing medical conditions with an uncooperative patient
- Identifying potential elder abuse
- Recognising substance abuse
- Basic principles of psychiatry
- Recognising an at risk patient

Palpitations

When a patient presents with palpitations a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Anxiety
- Exercise induced
- In relation to pre-existing conditions including
 - Thyroid disease
 - Anaemia
 - Fever
 - Dehydration
 - Low blood sugar
 - Low blood pressure
- Resulting from medications or toxins
- Hormonal changes
- After prior myocardial infarct
- Coronary artery disease
- Other heart problems including congestive heart failure, heart valve or heart muscle problems

Hepatitis or Jaundice

When a patient presents with hepatitis or jaundice a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Incubation and prodromal phase
- Virus-specific
- Toxic hepatitis
- Autoimmune
- Acute liver failure

Gastrointestinal Bleeding

When a patient presents with gastrointestinal bleeding a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Understanding of the initial assessment and stabilization of patients with GI bleeding
- Understanding of haemovigilance and blood transfusion protocols
- Upper gastrointestinal bleeding including
 - Peptic ulcer Disease
 - Gastritis
 - Esophageal varices
 - Mallory-Weiss tears
 - Gastrointestinal cancers
 - Inflammation of the gastrointestinal lining from ingested material
- Lower gastrointestinal bleeding including
 - Diverticular disease
 - Gastrointestinal cancers
 - Inflammatory bowel disease (IBD)
 - Infectious diarrhoea
 - Angiodysplasia
 - Polyps
 - Haemorrhoids and anal fissures

Haemoptysis

When a patient presents with haemoptysis a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Recognition and Management of massive Haemoptysis
- Common causes of haemoptysis
 - Acute and chronic bronchitis
 - Tuberculosis
 - Lung cancer
 - Pneumonia
 - Bronchiectasis
 - Pulmonary Embolus
 - Alveolar Haemorrhage (vasculitis)

Rash

When a patient presents with a rash a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Urticaria
- Anaphylaxis and Angio Oedema
- Erythroderma and exfoliation
- Psoriasis and seborrhoeic/contact dermatitis
- Purpura and vasculitis
- Blistering eruptions
- Infections and the skin

Acute Back Pain

When a patient presents with acute back pain a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Non-specific acute back pain
- Causes of chronic low back pain
- Neurologic findings in back pain
- Identifying serious etiologies of back pain e.g.,
 - Cancer
 - Fracture
 - Infection
 - Cauda equina syndrome

Poisoning and Drug Overdose

When a patient presents with poisoning or overdose a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Diagnostic clues in the assessment of overdoses
- Identification of toxic agent (paracetamol, SSRI, benzodiazepines, opiates, amphetamines, TCAD)
- Immediate management
- Mental health assessment and definitive care

Hyper-glycaemia

When a patient presents with hyper-glycaemia a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Symptoms of acute hyper-glycaemia
 - Recognition and Management of diabetic ketoacidosis
 - Recognition and management of Hyperosmolar non ketotic hyperglycemic states
-

Procedures

Objectives: To develop proficiency in common procedures required for general internal medicine.

Knowledge and Skills

Abdominal paracentesis under ultrasound

ECG Interpretation

Emergency DC cardioversion

- Up to date ACLS training to cover:
 - Necessity of Synchronised Shock
 - Starting voltage
 - Safe use of Defibrillator

Emergency care of tracheostomy

- In cases of:
 - Cardiac arrest
 - Dealing with a compromised airway

Femoral venous lines with ultrasound guidance

- Ultrasound guided femoral venous line placement
- Anatomical markers for femoral veins
- Safe cannulation of vein
- Secure line in place/review position on X-ray

Intercostal drain under ultrasound

- Anatomical markings
- Insertion of intercostal tube (small bore seldinger)
- Connection to underwater seal and secure in place
- Assessment and management of drain
- Safe removal of the tube

Joint aspiration

- Sterile field
- Fluid analysis
- Injectable compounds

Lumbar puncture

- Anatomical markers
- Cannula selection
- Safe puncture including appropriate preparation
- Measurement of CSF pressure
- Removal of samples and interpretation of results
- Management of post lumbar puncture headache

Non-invasive Ventilation

- Principles of BIPAP and CPAP
- Monitoring and limitations
- Mask fitting
- Understanding of pressures

Pleural and ascitic fluid aspiration under ultrasound

- Safe approach and role of ultrasound guidance
- Puncture pleural / peritoneal space
- Withdrawal of fluid

Specialty Section

Assessing Clinical Pharmacology Literature

Objective: To critically evaluate literature relevant to CPT including basic pharmacology, toxicology and phase I, II, III and IV clinical trials and meta-analyses

KNOWLEDGE

- The different phases of drug development and the information to be gained at each stage
- The different designs of both observational and interventional drug studies
- The major sources of error for each design
- The principles of controlled experiments, randomisation, use of placebo control and blinding

SKILLS

- Critical analysis of papers regarding rationale, cogency, experimental design, analytical methodology, method of analysis, potential sources of bias, confounding, conflict of interest, appropriateness of discussion, validity of conclusions
- Critical analysis of advertising claims made for medicinal products
- Appropriate use of electronic databases (e.g. Medline, Embase, Toxbase, Cochrane, NeLH).

ASSESSMENT & LEARNING METHODS

- HST Ethics Foundation
- HST Ethics for General Medicine
- Case Based Discussion: Evaluate expert reviews (e.g. National Medicines Information Centre(NMIC), National Centre for Pharmacoeconomics (NCPE, NICE)
- Attendance at journal clubs, drug and therapeutics and audit committee meetings.
- Annual publication
- Study Day: Evidence based medicine
- Time spent in the National Centre for Pharmacoeconomics (NCPE)

Use of Statistical Techniques Relevant to Clinical Pharmacology

Objective: To understand uses and limitations of basic statistical tests as related to analysis of pharmacological data

KNOWLEDGE

- Sources of biological variation and explain the principles involved in quantifying this.
- Common parametric and non-parametric tests including t-tests, ANOVA, Chi-squared, Mann-Whitney, and linear, Pearson and Spearman rank regression.
- Risks of multiple hypothesis testing and methods to obviate this (e.g. Bonferroni correction)
- Difference between absolute and relative risk reduction

SKILLS

- Interprets P values and confidence intervals (CI) including Confidence intervals of differences
- Use of basic statistics package(s)

ASSESSMENT & LEARNING METHODS

- Health Research - An Introduction
- Research
- Presentations (Oral and/or Poster)
- Publications

Mechanism of Drug Action

Objective: To use knowledge of mechanisms of drug action to extrapolate likely effect of new drugs, doses and combinations

KNOWLEDGE

- Mechanisms of action and modes of use of common therapeutic drugs
- Sources of individual variation including genetic, age- and gender- related (including pregnancy and lactation), and other sources of individual variation especially co-existing renal, hepatic and other disease, and drug interaction (both beneficial and adverse)

SKILLS

- Predict likely effects both beneficial or adverse of a novel drug with known mechanism of action
- Predict effect of deviation from normal dose or dosing regimen
- Predict likely effect of ethnicity, gender, co-morbid or physiological state on drug action in an individual
- Predict effect of combinations of drugs

ASSESSMENT & LEARNING METHODS

- Case Based Discussion
- Diploma in Toxicology

Dosing Regimens

Objective: To have a knowledge-base of pharmacological principles to use, devise or advise on appropriate dosing regimens to optimise drug effects

KNOWLEDGE

- Underlying determinants of drug kinetics including absorption, distribution and elimination
- Basic pharmacokinetic concepts such as Area Under the Curve (AUC), clearance and half-life
- Different types of relationship between blood concentration and drug effect

SKILLS

- Ability to manipulate numerical values of AUC, clearance and half-life using a PK modelling package
- Constructs and adjusts dose regimens correctly
- Checks mathematical calculations

ASSESSMENT & LEARNING METHODS

- Case Based Discussion

Rational Prescribing - Individuals

Objective: To prescribe rationally in individual patients

KNOWLEDGE

- Principles of choosing the correct drug from those available for a particular indication
- Choice of dose, route of administration, duration of treatment
- Methods of measuring drug response
- Know when measurement of drug concentrations (Therapeutic Drug Monitoring) is applicable and how results are to be interpreted

SKILLS

- Identification of desired outcome of treatment
- Ability to negotiate an acceptable therapeutic regimen with the patient where appropriate
- Giving patients appropriate education necessary for safe drug use
- Appropriate interpretation of drug concentration measurements
- Respecting patient/ subject behaviour

ASSESSMENT & LEARNING METHODS

- Record of prescribing for common cases in ePortfolio
- Case Based Discussion

Rational Prescribing Population

Objective: To collaborate in devising policies for rational, safe, cost-effective prescribing

KNOWLEDGE

- Methods of determining clinical efficacy from broad/ conflicting literature
- Knowledge of factors that determine difference between efficacy and clinical effectiveness
- Basic principles of pharmacoeconomics
- Factors which are likely to make a drug high risk in routine use

SKILLS

- Performing structured literature search to answer specific efficacy question
- Developing prescribing policies, formularies and guidelines
- Making effective submissions to formulary committees for new drugs
- Auditing drug utilisation.

ASSESSMENT & LEARNING METHODS

- Attend formulary committee/Develop formularies
- Mini-CEX: Review of prescribing skills
- Teaching prescribing to MDT

Drug Regulation

Objective: To understand and work within the current drug regulatory framework.

KNOWLEDGE

- Roles of the National and European bodies including the Irish Medicines Board and the European Medicines Evaluation Agency (EMA)
- Roles of the National Centre for Pharmacoeconomics (NCPE) and other international bodies such as National Institute for Health and Clinical Excellence (NICE) and the Scottish Medicines Consortium (SMC)
- The legislation regarding medicines use in Ireland
- The rules surrounding non-medical prescribing
- The use of over-the counter, complementary and alternative medicine use, and unlicensed and off-label use of drugs in Ireland

SKILLS

- Applies knowledge in individual patient practice and in drafting management guidelines.
- Ability to provide appropriate additional information to patients when prescribing unlicensed drugs or when advising others in this practice

ASSESSMENT & LEARNING METHODS

- Case based Discussion
- Draft local hospital guideline

Pharmacoepidemiology

Objective: To describe and influence what determines the pattern of use of medicines in populations.

KNOWLEDGE

- Knowledge of factors that affect drug utilisation including effects of: social class, ethnicity, nationality (especially within Europe), economic status, co-morbidity, age and gender (including pregnancy and lactation).
- Factors affecting the public perception of drugs and their use in treating and preventing disease, including effects of media on medicines utilisation.
- The role of the pharmaceutical industry in the public perception of drug use.
- The factors which are important in determining adherence in an individual patient

SKILLS

- Applying above knowledge in individual patient practice and in drafting management guidelines
- Handling potential conflicts of interest appropriately
- Respecting ethnic diversity
- Contributing to public education about drugs and their utilisation

ASSESSMENT & LEARNING METHODS

- Study Day: Prescribing skills
- Review utilization patterns of use
- Research
- Case Base Discussion

Adverse Drug Reactions

Objective: To anticipate (and hence minimise), detect, manage, report and analyse adverse drug reactions (ADR)

KNOWLEDGE

- Important (common and/or severe) adverse effects of drugs used in their area of clinical practice.
- The mechanisms whereby drugs cause ADRs
- Common clinical presentations of ADRs
- Appropriate management of suspected ADRs
- How ADRs are identified and reported
- The classification of ADRs

SKILLS

- Managing common and serious ADRs, including anaphylaxis, appropriately
- Using printed and electronic resources to identify unusual or uncertain ADR
- Analysing post-marketing surveillance studies critically
- Reporting suspected ADRs appropriately
- Having a strategy for managing minor ADRs threatening to interrupt necessary drug treatment
- Alerting to the possibility that clinical events are drug-related
- Showing good judgement in when to alert others to possible drug adverse effects
- Consulting with colleagues over judgements such as risk/benefit of re-challenge
- Maintaining a critical but balanced attitude towards promotional literature

ASSESSMENT & LEARNING METHODS

- Case Based Discussion
- Audit of systems
- Patient Safety: Medication Safety module (online)

Drug Errors

Objective: To anticipate (and hence minimise), detect, manage, report possible drug prescription or administration errors

KNOWLEDGE

- The human factors which lead to drug use errors
- The system factors which increase the risk of drug errors
- Methods which can be used to avoid drug use errors

SKILLS

- Observing good practice to avoid errors when personally prescribing
- Showing ability to identify possible medication errors
- Analysing factors contributing to identified error of drug use
- Contributing to policies for avoidance of future errors in drug use
- Non-judgemental attitude in analysis of drug errors
- Participating in audits of unit and personal prescribing

ASSESSMENT & LEARNING METHODS

- Case Based Discussion
- Audit of systems
- Patient Safety: Medication Safety module (online)

Drug Overdose

Objective: To advise on cases of overdose or poisoning, and to manage such cases as are relevant to their clinical specialty (e.g. children for paediatricians)

KNOWLEDGE

- Mechanisms of action of important poisons, including therapeutic drugs commonly taken accidentally or deliberately in overdose.
- Strategies for management of poisoned patients including: protection of staff and other patients, decontamination, resuscitation, monitoring, antidotes including for digoxin, iron, cyanide and cholinesterase inhibitors

SKILLS

- Accessing information effectively, including via the National Poisons Information Service
- Accessing and keeps up to date with National Guidance on chemical attack
- Developing diagnostic skills relevant to the epidemiological context of chemical attack
- Maintaining up-to-date qualifications in resuscitation skills
- Managing poisoning with paracetamol, aspirin, benzodiazepines, tricyclics, opioids, and other drugs of abuse
- Preparing prudently in the face of possible chemical incident, protecting self and other staff and avoiding self contamination
- Once prepared, accepting necessary residual risk in order to care for poisoned patients
- Respecting patients with behavioural and psychiatric problems, and consults appropriately with colleagues in provision of psychiatric support

ASSESSMENT & LEARNING METHODS

- Case Based Discussion
- ACLS certified
- Attachment to poison unit and/or Emergency Department during training
- Attachment to National poison centre during training
- Diploma in Toxicology
- Research in Clinical Pharmacology

First in Man Studies

Objective: To undertake and interpret early phase studies of drug action in humans

KNOWLEDGE

- Theories of drug-receptor interactions and the related concepts of agonists, antagonists, structure activity relationships, dose response relationships
- Structures and principles of early phase studies
- Appropriate use of controls
- Appropriate safety measures
- Choice of surrogate endpoints
- Methods for drug level measurement

SKILLS

- Writing trial protocols
- Writing and submitting REC submissions
- Ability to recruit subjects for studies and obtain valid informed consent
- Measuring end points reliably
- Recording data accurately
- Analysing data including risk-benefit analysis and dose determination for definitive phase-3 studies
- Communicating with co-workers and drafts a final manuscript for submission
- Consulting appropriately
- Recognising the primacy of subject safety
- Appreciating the need for meticulous record keeping and research governance
- Appreciating the importance of communicating research data orally and in written form and being diligent in writing and rehearsal

ASSESSMENT & LEARNING METHODS

- Case Based Discussion
- Research projects during training
- HST Ethics: Foundations
- Time spent in Clinical trial unit
- Health Research Methods for Clinicians

Advanced Statistical Analysis

Objective: To select prospectively appropriate statistical methods for planned experiments (including clinical trials), perform such analyses, and interpret the resulting statistical output

KNOWLEDGE

- Methods of analysing drug concentration-time data including non-linear least squares fits and concept of population analyses
- Methods of analysis interval outcome data including repeated measures ANOVA
- Methods of analysing survival data including Cox proportional hazards

SKILLS

- Consults effectively with statisticians during the planning stage of complex experimental studies.
- Determines the power of a study to evaluate differences between therapies, and estimate the sample size needed
- Appreciates the limitations of statistical analysis, trial design and the need for trial validation

ASSESSMENT & LEARNING METHODS

- Research projects during training
- HST Ethics: Foundations
- Health Research Methods for Clinicians

Clinical Trials

Objective: To design clinical trials, including phase 3 studies, and contribute to their execution and dissemination.

KNOWLEDGE

- Principles of good clinical practice (GCP), as set out in the ICH (International Conference on Harmonisation) and the European Clinical Trials Directive
- Different trial designs, e.g. parallel versus cross-over
- Principles of controlled experiments, randomisation, use of placebo and blinding
- The responsibilities of investigators and their sponsors
- Detection and reporting of suspected unexpected serious adverse drug reactions (SUSARs)
- The role of the Data Safety Monitoring Board
- Types of early stopping rules used in clinical trials

SKILLS

- Selecting a trial design appropriate to the research question
- Writing a Research Ethics Committee(REC) application
- Justifying a research proposal in terms that are understood by the lay members of a REC.
- Ability to recruit research subjects
- Screening potential subjects for inclusion/exclusion criteria
- Obtaining valid informed consent
- Arranging visits of research subject to clinical laboratory or research clinic
- Performing and/ or supervising clinical measurements
- Keeping records to the standard required by GCP
- Ability to assess causation of adverse events
- Ability to understand and interpret in-trial adverse event data
- Ability to weigh adverse event data against risk of terminating trial prematurely
- Contributing to writing papers and reporting findings by oral and poster presentations at meetings
- Maintaining absolute integrity
- Carefully approaching a human investigation where an external sponsor has ultimate control over the right to publish or otherwise disseminate resulting information
- Maintaining meticulous attention to detail
- Exhibiting balanced approach to interpretation of safety data
- Recognising the primacy of safety of the subjects
- Maintaining a professional relationship with study sponsors and their employees

ASSESSMENT & LEARNING METHODS

- Perform clinical trial
- Course in Good Clinical Practice

Documentation of Minimum Requirements for Training

- These are the minimum number of cases you are asked to document as part of your training. It is recommended you seek opportunities to attain a higher level of exposure as part of your self-directed learning and development of expertise.
- You should expect the demands of your post to exceed the minimum required number of cases documented for training.
- If you are having difficulty meeting a particular requirement, please contact your speciality coordinator

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
Section 1 - Training Plan				
Personal Goals Plan (Copy of agreed Training Plan for your current training year signed by both Trainee & Trainer)	Required	1	Training Post	Personal Goals Form
On Call Rota Unselected Admissions For General Internal Medicine (Completed within first 3 years)	Required	1	Training Post	Clinical Activities
GIM Year	Required	480	Training Programme	
Dual Specialty Year	Required	480	Training Programme	
Section 2 - Training Activities				
Outpatient Clinics	Required	40	Year of Training	Clinical Activities
Ward Rounds/Consultations (Minimum of 3 per week consultant and independently led)				Clinical Activities
Consultant Led	Required	40	Year of Training	
SpR Led	Required	40	Year of Training	
Consultations	Required	50	Year of Training	
Emergencies/Complicated Cases	Desirable	1	Year of Training	Cases
Draft hospital Prescribing Guideline	Required	2	Year of Training	Policies and Guidelines
Additional/Special Experience Gained				Clinical Activities

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
National Centre for Pharmacoeconomics (NCPE) or National Medicines information Centre (NMIC)	Required	1	Training Programme	
Attachment to Poisons unit and/or ED	Required	1	Training Programme	
Attachment to National Poisons Centre	Required	1	Training Programme	
Time spent in Clinical trial unit	Desirable	1	Training Programme	
Making a submission for a clinical trial/Presenting a trial to an ethics committee	Desirable	1	Training Programme	
Relatively Unusual Cases	Desirable	1	Training Programme	Cases
Chronic Cases/Long term care	Desirable	1	Training Programme	Cases
Adverse Drug Reaction(ADR) reporting/analysis/risk assessment	Desirable	1	Training Programme	
Deprescribing experience: Geriatric/Polypharmacy/Rationalisation of medications	Desirable	1	Training Programme	
Prescribing within a Multidisciplinary Team e.g. Monoclonal antibodies in Dermatology/Rheumatology/Gastroenterology/Immunology	Desirable	1	Training Programme	
Management Experience	Required	1	Training Programme	
Drugs and Therapeutics Committee/ Formulary Committee attendance	Required	1	Training Programme	Management Experience
Other	Desirable	1	Training Programme	Management Experience
General Internal Medicine Procedures/Practical Skills/Surgical Skills				Procedures
BIPAP/CPAP	Required	10	Training Programme	
Emergency DC cardioversion	Required	10	Training Programme	
ECG interpretation	Required	50	Training Programme	

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
Joint aspiration	Required	4	Training Programme	
Lumbar puncture	Required	20	Training Programme	
Abdominal paracentesis – under ultrasound	Desirable	4	Training Programme	
Femoral venous line placement – under ultrasound	Desirable	1	Training Programme	
Pleural aspiration – under ultrasound	Desirable	4	Training Programme	
Intercostal drain Insertion – under ultrasound	Desirable	1	Training Programme	
Section 3 - Educational Activities				
Mandatory Courses				Course Attendance
ACLS Certified	Required	1	Training Programme	
Ethics Foundation	Required	1	Training Programme	
Ethics for General Medicine	Required	1	Training Programme	
An Introduction to Health Research Methods	Required	1	Training Programme	
HST Leadership in Clinical Practice (Year 3 +)	Required	1	Training Programme	
Mastering Communication (1st year)	Required	1	Training Programme	
Patient Safety: Medication Safety Module (online)	Required	1	Training Programme	
Performing Audit (Year 1)	Required	1	Training Programme	
Wellness Matters	Required	1	Training Programme	
General Internal Medicine Mandatory Courses				

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
NIHSS Stroke Scale	Required	1	Training Programme	
Delirium Recognition and Response (Online)	Required	1	Training Programme	
Bedside Ultrasound (POCUS) for GIM	Required	1	Training Programme	
Non – Mandatory Courses				
Diploma in Toxicology course or Good Clinical Practice Course	Desirable	1	Training Programme	
Diploma in Cerebrovascular and Stroke Medicine	Desirable	1	Training Programme	
Health Research Methods for Clinicians	Desirable	1	Training Programme	
Additional specialty or professional development course	Desirable	1	Training Programme	
Study days				Study Day Attendance
General Internal Medicine specialty year (Minimum of 6 GIM study days: 3 'core' and 3 'non-core')	Required	6	Year of Training	
Years 1 – 3 for non-GIM Years (Minimum of 3 GIM study days per year: 2 'core' and 1 'non-core')	Required	3	Year of Training	
Years 1 – 3 for non-GIM Years:4 Specialty study Days	Required	4	Year of Training	
Year 4+: 4 Specialty Study days	Required	4	Year of Training	
In-house Activities				Attendance at Hospital Based Learning
Grand Rounds	Required	10	Year of Training	
Journal Club	Required	6	Year of Training	
Radiology Conference	Required	6	Year of Training	
Pathology conference	Required	6	Year of Training	

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
MDT Meetings	Required	12	Year of Training	
Seminar	Required	12	Year of Training	
Lecture	Required	6	Year of Training	
Delivery of Teaching				Delivery of Teaching
This should include the following categories:				
Lecture	Required	8	Year of Training	
Tutorial	Required	8	Year of Training	
Bed side teaching	Required	8	Year of Training	
Research				Research Activities
Perform clinical trial	Required	1	Training Programme	
Audit activities and Reporting (1 per year either to start or complete, Quality Improvement (QI) projects can be uploaded against audit 1 audit a year Review utilisation patterns of drug use)	Required	1	Year of Training	Audit Activities & QI
Publications	Desirable	2	Year of Training	Additional Professional Experience
Presentations	Required	2	Year of Training	Additional Professional Experience
National/International meetings (Minimum 1 per year)	Required	1	Year of Training	Additional Professional Experience
Additional Qualifications	Desirable	1	Training Programme	Additional Professional Experience
Committee Attendance				

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
Formulary/Drugs and Therapeutics committee (Develop formularies)	Required	24	Training Programme	Additional Professional Experience
Section 4 - Assessments				
DOPS				
Record of prescribing for common cases	Required	20	Training Programme	DOPS
General Internal Medicine DOPS				
BIPAP/CPAP	Required	1	Training Programme	
Communication e.g. chairing care planning meeting for complex discharge, procedure consent	Required	1	Training Programme	
DC cardioversion	Required	1	Training Programme	
ECG interpretation	Required	1	Training Programme	
Joint aspiration	Required	1	Training Programme	
Lumbar puncture	Required	1	Training Programme	
Abdominal paracentesis under ultrasound	Desirable	1	Training Programme	
Femoral venous line placement under ultrasound	Desirable	1	Training Programme	
Pleural aspiration under ultrasound	Desirable	1	Training Programme	
CBD	Required	2	Year of Training	CBD
Mini-CEX (At least two Mini-CEX assessments a year, one in-patient & one out-patient)	Required	2	Year of Training	Mini CEX
Quarterly Assessments/End-of-Post Assessments	Required	4	Year of Training	Quarterly Assessments/End-of-Post Assessments

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
End of Year Evaluation	Required	1	Year of Training	End of Year Evaluation