



**IRISH COMMITTEE
ON HIGHER
MEDICAL TRAINING**

ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

INTERNATIONAL CLINICAL FELLOWSHIP TRAINING IN

INFECTIOUS DISEASES



This curriculum of training in Infectious Diseases was developed in 2015 and undergoes an annual review by Prof Colm Bergin National Specialty Director, Dr Ann O'Shaughnessy, Head of Professional Affairs and by the Infectious Diseases Training Committee. The curriculum is approved by the Irish Committee on Higher Medical Training.

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Introduction

The International Clinical Fellowship Programme (ICFP) provides a route for overseas doctors wishing to undergo structured and advanced postgraduate medical training in Ireland. The ICFP enables suitably qualified overseas postgraduate medical trainees to undertake a fixed period of active training in clinical services in Ireland.

The purpose of the ICFP is to enable overseas trainees to gain access to structured training and in active clinical environments that they cannot get in their own country, with a view to enhancing and improving the individual's medical training and learning and, in the medium to long term, the health services in their own countries.

This Programme will allow participants to access a structured period of training and experience as developed by the Royal College of Physicians of Ireland to specifically meet the clinical needs of participants as defined by their home country's health service.

Aims

Upon satisfactory completion of the ICFP, the doctor will be **competent** to undertake comprehensive medical practice in their chosen specialty in a **professional** manner, in keeping with the needs of the healthcare system.

Competencies, at a level consistent with practice in the specialty, 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.
- Capability to be a scholar, contributing to development and research in the field of the chosen specialty.
- Professionalism.
- Ability to understand health care and identify and carry out system-based improvement of care.

Professionalism

Medical professionalism is a core element of being a good doctor. Good medical practice is based on a relationship of trust between profession and society, in which doctors are expected to meet the highest standards of professional practice and behaviour. It involves partnership between patient and doctor that is based on mutual respect, confidentiality, honesty, responsibility and accountability. In addition to maintaining clinical competence, a doctor should also:

- Show integrity, compassion and concern for others in day-to-day practice
- Develop and maintain a sensitive and understanding attitude with patients
- Exercise good judgement and communicate sound clinical advice to patients
- Search for the best evidence to guide professional practice
- Be committed to continuous improvement and excellence in the provision of health care whether working alone or as part of a team

Prior to commencing their sponsored clinical placements, all participants will also be required to undergo the mandatory screening requirements of the relevant clinical site/service including occupational health assessment and Garda/Police clearance.

Training Programme Duration & Organisation of Training

The period of clinical training that will be provided under the International Clinical Fellowship Programme (ICFP) for medical specialities is up to 3 years, after which the overseas doctors will be required to return to their country of origin. It should be noted that to progress to the third year of training, trainees must hold the full MRCPI/UK.

- Each ICFP is developed by the Royal College of Physicians of Ireland will be specifically designed so as to meet the training needs of participants to support the health service in their home country.
- All appointees to the ICFP will be assessed by the Royal College of Physicians of Ireland to ensure that they possess the necessary requirements from a training and clinical service perspective.
- Each overseas doctor participating in the ICFP will be enrolled with the Royal College of Physicians of Ireland and will be under the supervision of a consultant doctor who is registered on the Specialist Division of the Register of Medical Practitioners maintained by the Medical Council and who is an approved consultant trainer.
- Appointees to the ICFP will normally be registered on the Supervised Division of the Register of Medical Practitioners maintained by the Medical Council in Ireland.
- Appointees will agree a training plan with their trainers at the beginning of each training year.
- For the duration of their International Medical Graduate (IMG) programme and associated clinical placements, all participants will remain directly employed and directly paid by their sponsoring state at a rate appropriate to their training level in Ireland and benchmarked against the salary scales applicable to NCHD's in Ireland;
- Successful completion of an ICFP will result in the participant being issued with a formal Certificate of completion for the Fellowship Programme by the Royal College of Physicians of Ireland. This Certificate will enable the participant's parent training body in their sponsoring home country to formally recognise and accredit their time spent training in Ireland.

The training programme offered will provide opportunities to fulfil all the requirements of the curriculum of training. There will be posts in both general hospitals and teaching hospitals. Each post within the programme will have a named trainer/educational supervisor and programmes will be under the direction of the National Specialist Director of the relevant medical speciality to be confirmed by the College. Programmes will be as flexible as possible consistent with curricular requirements, for example to allow the trainee to develop their sub-specialty interest.

ePortfolio logbook

Each trainee is responsible for maintaining an up-to-date record of progress through training and compiling a portfolio of achievements for presentation at each annual assessment review. The trainee also has a duty to maximise opportunities to learn, supplementing the training offered with additional self-directed learning in order to fulfil all the educational goals of the curriculum. Up-to-date training records and an ePortfolio of achievements will be maintained by the trainee throughout. The training records will be countersigned as appropriate by the trainers to confirm the satisfactory fulfilment of the required training experience and the acquisition of the competencies set out in the training plan. They will remain the property of the trainee and must be produced at their annual assessment review.

Trainees must co-operate with the College in completing their training plan.

It is in a trainee's own interest to maintain contact with the Royal College of Physicians of Ireland, and to respond promptly to all correspondence relating to training. At review, your ePortfolio will be examined.

Review

A consultant trainer/educational supervisor will be identified for each participant in the programme. He/she will be responsible for ensuring that the educational potential of the post is translated into effective training which is being fully utilized. Only departments approved for Training by the Royal College of Physicians of Ireland and its constituent training bodies will be used.

The training objectives to be secured should be agreed between each trainee and trainer at the commencement of each posting in the form of a written training plan. The trainer will be available throughout, as necessary, to supervise the training process. In each year trainees undergo a formal review by an appropriate panel. The panel will review in detail the training record, will explore with the trainee the range of experience and depth of understanding which has been achieved and consider individual trainer's reports. An opportunity is also given to the trainee to comment on the training being provided; identifying in confidence any deficiencies in relation to a particular post.

A quarterly and annual review of progress through training will be undertaken on behalf of the International Clinical Fellowship Programme (ICFP). These will include assessments and reports by educational supervisors, confirmation of achievements and the contents of the ePortfolio will be reviewed. At some or all of these annual reviews a non-specialty assessor will be present capable of addressing core competencies.

The award of a Certificate of completion will be determined by a satisfactory outcome after completion of the entire series of assessments.

Generic Components

This chapter covers the generic components which are relevant to international 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 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 (Mandatory)
- 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

- Health Research (online) – An Introduction
- Effective Teaching and Supervising Skills course (online) - recommended
- Educational Assessment Skills course - recommended
- Performing audit (online) course –mandatory
- 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 online course
- 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)
- 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)

Specialty Section

The Infectious Diseases Society of America Fellows In-Training Exam is listed as one of the assessment methods in the specialty section of this curriculum. The purpose of this exam is not as a certifying or qualifying examination but to be used as a self- assessment tool designed to gauge knowledge of infectious diseases. This examination is optional but encouraged.

Clinical Competence

Objective: To obtain clinical competence in the assessment, investigation, diagnosis and management of community acquired infection at consultant level that is evidence based, including:

- Taking an appropriate history.
- Performing appropriate physical examination
- Performing appropriate investigator and specific skills including lumbar puncture
- Achieving an appropriate specific or differential diagnosis and initiate appropriate treatment.
- Developing clinical and administrative skills to develop ID services.
- Knowledge of and competency in the management of cross-specialty infections such as TB, viral hepatitis and infection control and prevention.

KNOWLEDGE

History

- Recognise symptom patterns
- Relevant, succinct and logical histories even when language, physical or mental impairment pose difficulties
- Ability to compile and condense patient's history from different sources as required

Physical Examination

- Knowledge of the path of and physiological basis of physical signs
- Explain the procedure to the patient, ensure that patient discomfort is minimised
- Elicit appropriate physical signs
- Skilfully use instruments of examination
- Be aware of patient dignity, confidentiality and ethnic issues
- The relative's rights and responsibilities
- The need for a chaperone

Investigation and Specific Skills

- Knowledge of the Pathophysiological basis of tests
- Knowledge of its relevance
- Pathological basis of the test
- Awareness of the cost and economy and safety of the investigation

Differential Diagnosis

- A broad knowledge of clinical presentation of infectious diseases
- Knowledge of optimum treatment infections
- Ability to assimilate clinical, laboratory and epidemiological information and to use this to differentiate between infections and other conditions
- Consideration of diagnostic issues in relation to fears of patient
- Ability to review and revise the diagnostic matrix

Clinical acumen in the organisation and development of in-patient and out-patient services

- Awareness of differing models of health care delivery

Interface with related infection disciplines

- Understand the different components and roles of infection services e.g. public health, microbiology, immunology, epidemiology, travel medicine.
- Awareness of pathophysiology and management of patients with diseases spanning different specialties.

SKILLS

- Provide consult service
- History taking
- Give targeted differential diagnosis
- Organise administrative and clinical services
- Initiate and co-ordinate an effective consultation service
- Capacity to work with multidisciplinary team members and colleagues

- Select appropriate tests
- Interpret results
- Perform interventions according to guidelines
- Establish close rapport and understanding with laboratory staff
- Recognise the need of a patient to understand procedures and results of tests
- Interpersonal skills
- Capacity to impart knowledge
- Coordinate care plan that might include outpatient antibiotic therapy (OPAT)

ASSESSMENT & LEARNING METHODS

- Infectious Diseases Society of America Fellows In-Training Exam
- Attending recognised national and international ID meetings
- E Portfolio and trainer reports

Management of the Immunocompromised Patients

Objective: To obtain clinical competence in the management of immunocompromised patients including those infected with HIV (see separate section), transplant patients and those on immunomodulating agents or immunosuppressive therapy. Trainees must have the ability to recognise clinical manifestations in the immunocompromised patient including the ability to evaluate and take appropriate history, perform a physical examination and appropriately investigate an immune compromised patient. In addition, trainees should be able to assess the degree of immune compromise and demonstrate their ability to reach a specific or differential diagnosis and initiate appropriate treatment.

KNOWLEDGE

- Knowledge of the pathophysiology and clinical symptoms and signs of infection in compromised host and understand their relevance
- Pathological basis of the tests
- The cost and economy and safety of the investigations in the immunocompromised host
- Biological and iatrogenic aetiology of immunodeficiency
- Knowledge of pretreatment evaluation and preventative measures (vaccines, multiple opportunistic preventative prophylaxis (MOPP))

SKILLS

- Assessment of level of immunodeficiency and infection risk
- Assessment of risk for and diagnose concurrent infection
- Immunodeficiency complications in specific patient cohorts – transplant patients, oncology patients, haematology patients, patients receiving immune modulating agents
- Communication skills allowing patients to recognise risk activity and its management
- Recognise clinical and laboratory manifestations of immunodeficiency
- Explain the procedures to the patient, ensure that patient discomfort is minimised
- Elicit appropriate physical signs
- Skilfully use instruments of examination
- Consider interaction of psychological and social well being on the physical symptoms
- Establish close rapport and understanding with laboratory staff
- Delivery of effective pain and psychological management
- Commitment to continuity of care through physical illness to death
- Multidisciplinary team working
- Prepared to work with patient support groups
- Appropriate use and interpretation of investigations e.g. microbiology, radiology
- Knowledge of resources required in investigations

ASSESSMENT & LEARNING METHODS

- Clinical Club
- Infectious Diseases Society of America Fellows In-Training Exam

Viral Diagnostics

Objective: Trainees must be competent in the use of specific HIV, HCV and HBV diagnostics.

KNOWLEDGE

- Understanding of currently used diagnostic techniques
- Appropriate use of diagnostic techniques
- Knowledge of currently used diagnostic Tests
- Rational use of resources

SKILLS

- Interpretation of resistance profiles - Hep B, Hep C, HIV
- Engagement with molecular virology laboratory and virologist
- Counselling

ASSESSMENT & LEARNING METHOD

- Infectious Diseases Society of America Fellows In-Training Exam

Management of HIV

Objective: To gain a broad experience in the evaluation and management of inpatient and outpatient adult patients with HIV infection. This includes antimicrobial and antiretroviral management of HIV infection and associated opportunistic diseases, understanding of the pathophysiology of HIV infection and AIDS

Objectives of inpatient care of HIV infected patients:

Formulate a basic approach to evaluation of acutely ill HIV infected patients to include history, physical examination, ordering and interpreting diagnostic tests and development of an appropriate differential diagnosis

Interact with radiology, microbiology/virology, pathology and other diagnostic services to assist in management of HIV infected patients.

Communicate with patients and health care professionals in a clear and appropriate manner. develop competency in the care of patients with comorbidities and those who marginalised by social and economic issues

Objectives of ambulatory care of HIV infected patients:

Evaluate and treat HIV infected outpatients in all aspects of care

Understanding of how to provide care to potentially vulnerable and marginalised patients, in addition to understanding the cultural diverse needs of patients.

Understanding of the mechanisms of and the approach to ART including indications, adverse effects, resistance and drug interactions.

Determining when to initiate treatment and with what

Use of resistance testing and selection of salvage therapy

Management of common comorbidities such as TB, HCV and HBV.

Management of long term complications of HIV infection and its treatment.

KNOWLEDGE

General HIV infected patients

- Pathophysiology of HIV infection and impact on the immune system
- Natural history of HIV infection
- Symptomatic HIV infection including early signs of immunodeficiency and AIDS-related conditions
- Laboratory testing for initial patient work up and ongoing management of HIV infection
- Management of HIV infected patients including prevention of opportunistic infections, immunization, antiviral therapy and cardio- and bone- protective therapies
- Awareness and knowledge of patient support groups
- Prevention of transmission of infection

Specific HIV infected Patient cohorts

- Pregnancy and conception, co-infection (HBV, HCV, TB), patient diversity, injection drug users, advanced disease and palliative care
- Spectrum of professional and complementary therapies available
- Palliative medicine, nutrition, pain relief, psychology of dying
- Cultural and social supports available to patients

SKILLS

- Assessment of level of immunodeficiency and infection risk
- Assessment of risk for and diagnose concurrent infection
- Assessment of patients at risk of AIDS related complications
- Communication skills allowing patients to recognise risk activity and its management

- Ability to interpret key diagnostics in HIV management including viral load measurements and immune markers
- Ability to explain the procedures to the patient, ensure that patient discomfort is minimised
- Elicit appropriate physical signs
- Skilfully use instruments of examination
- Consider interaction of psychological and social well being associated with HIV infection
- Establishing close rapport and understanding with laboratory and radiology staff
- Multidisciplinary team working with key members such as HIV pharmacist and Clinical Nurse Specialists
- Prepared to work with patient support groups
- Assessment of impact of cultural diversity on HIV
- Assessment of social and economic impacts on patients

ASSESSMENT & LEARNING METHODS

- Infectious Diseases Society of America Fellows in training examination
- HIV club

Antiviral Therapy for Chronic Viral infections

Objective: Trainees must have the ability to institute and manage antiviral therapy as relates specifically to HIV, HCV and HBV.

KNOWLEDGE

- Pharmacokinetics and mode of action of available therapy
- Mechanisms of resistance/cross resistance
- Knowledge on how to access further information e.g. current guidelines etc.
- Indepth knowledge of antiretroviral therapy for HIV infection.
- Drug interactions

SKILLS

- Understanding of resistance/cross resistance
- Understanding of evidence based guidelines
- Facilitate patient decision-making based on knowledge and understanding of the issues
- Ability to recommend appropriate drug regimens
- Appropriate use of guidelines
- Monitor for and recognise side effects
- Ability to involve the patient in the process
- Unbiased application of knowledge to the clinical situation

ASSESSMENT & LEARNING METHODS

- Infectious Diseases Society of America Fellows In-Training Exam

Management of the Hospital Acquired Infection

Objective: To acquire the skills necessary at consultant level to recognise and manage Healthcare Acquired Infection and institute control systems, including postoperatively and intensive care related illness.

Management of Infection

Particularly complex nosocomial infections in specific patients group

Objective: Trainees must have the ability to use the following skills in the context of hospital acquired infection: clinical history taking; appropriate examination; institute relevant investigations. Reach a satisfactory management plan in liaison with the hospital infection control and prevention program.

KNOWLEDGE

- Symptom patterns
- Pathophysiology and origin of physical signs
- Common/typical problems
- Hospital acquired infection
- Confidentiality and consent issues in the unconscious patient
- AMS (see next session)

SKILLS

- Discern the relevant features of a case whether or not the history is available
- Examination skills appropriate to the clinical situation
- Rational use of laboratory facilities
- Differentiate colonization from active infection
- Working sensitivity surrounding hospital acquired infection and appropriately dealing with patients, relatives, colleagues and hospital management

ASSESSMENT & LEARNING METHOD

- Infectious Diseases Society of America Fellows In-Training Exam
- Participate in Infection Control and Prevention Committee

Antimicrobial Stewardship

Objective: To provide the trainee with the knowledge and skills necessary to rationally use antibiotics such that they can provide leadership at an institutional level with the goal of appropriate antibiotic use.

KNOWLEDGE

- Understanding of differentiation of colonisation and infection
- Understanding of microbiology laboratory data
- Management of antimicrobial resistant infections
- Knowledge of new antimicrobials
- Local/national/international antibiotic resistance patterns
- Local/national/international clinical standards, guidelines and protocols
- Mechanisms of resistance
- Understanding of surveillance systems

Management of antimicrobial use

- Antimicrobial Prescribing
- Knowledge of antimicrobial agents, their spectrum of activity, mode of action, toxicity and appropriate use

Pharmacology and Toxicology

- Knowledge of pharmacology, toxicity and side effects of antimicrobial agents
- Recognition of limitations of individual agents and combination therapies

Antibiotic Control Policies

- Understanding of the importance of resource utilisation in relation to antimicrobials
- Knowledge of the relative costs of different agents

Understanding of prophylactic, pre-emptive and therapeutic prescribing

- Knowledge of the microbial agents likely to cause infection in different settings and their antimicrobial susceptibilities
- Understanding the principles underlying pre-operative prophylaxis

Resistant organisms: understanding the pharmacology of new agents

- Knowledge of infection control principles and policies

SKILLS

- Differentiation between colonisation and infection
- Understand laboratory data including interpretation of resistance patterns
- Appropriate antibiotic prescribing in simple and complex clinical settings
- Understand economics of antibiotic prescribing
- Interact collaboratively with medical, laboratory and nursing colleagues and understand the patient's concerns relating to the use of more toxic agents
- Teach appropriate antimicrobial prescribing
- Use of the knowledge to apply prophylaxis in the light of local epidemiological and individual clinical issues e.g. allergy
- Understand principles of prophylaxis and communicate same to colleagues and patients
- Multidisciplinary team working

ASSESSMENT & LEARNING METHODS

- Audit
- Infectious Diseases Society of America Fellows In-Training Exam
- Participate in Antimicrobial Stewardship activity where available

Infections in ICU Including Management of Sepsis

Objective: Trainees must be able to identify and manage infection and colonization by multi-resistant organisms in the setting of the ICU and management of Sepsis syndrome

KNOWLEDGE

- Common infection problems in the intensive care setting
- Pathophysiology of serious sepsis
- Management of infections with evidence base
- Outcomes of infection in ICU setting
- Sepsis six guidelines

SKILLS

- Prompt, relevant and appropriate decision-making based on current evidence
- Understand laboratory data including interpretation of resistance patterns and close liaison with microbiology lab
- Clear communication skills with other Healthcare professionals and relatives
- Caring and consistent attitude to the seriously ill and dying patient
- Responsible and appropriate attitude to the withdrawal of care
- Appropriate Antibiotic use (see also Antimicrobial Stewardship chapter)

ASSESSMENT & LEARNING METHOD

- Infectious Diseases Society of America Fellows In-Training Exam
- Attendance at Morbidity and Mortality conferences

Infection Control Policies Including Attendance at Courses e.g. SHEA or NHS

Objective: The development of and execution of infection control policies in the hospital setting through the infection control committee.

KNOWLEDGE

- Understand the rationale and evidence base of infection control policies
- Local/national/international clinical standards, guidelines and protocols

SKILLS

- Access, interpret and communicate advice based on local infection control guidelines
- Team working, assertiveness
- Participation in local infection control committees

ASSESSMENT & LEARNING METHOD

- Attendance at international hospital infection and epidemiology course e.g. SHEA.
- Participation in local infection control and prevention committee
- Infectious Diseases Society of America Fellows In-Training Exam

Management of Community Acquired Infections

Objective: The trainee should be able to diagnose, investigate and manage community acquired infection based on current evidence.

KNOWLEDGE

- Epidemiology of community acquired infections
- Knowledge of regional antimicrobial resistance data
- Close liaison with the laboratory and understanding of laboratory data including interpretation of resistance patterns
- Programme development – OPD services, OPAT

SKILLS

- Evaluate patient and assess risk
- Manage patient based on evidence
- Awareness of need for the involvement of other infection disciplines e.g. community outbreaks
- Triage patients for in-patient vs. out-patient care appropriately
- Identify the need to involve more senior colleagues appropriately
- Interpret Gram Stains
- Interpret Malaria smear
- Develop or expand ID programme

ASSESSMENT & LEARNING METHOD

- Infectious Diseases Society of America Fellows In-Training Exam

TRAVEL RELATED INFECTIONS

PREVENTION - Health Advice, Risk Assessment and Vaccine Usage (Optional)

Objective: Trainees must have the ability to provide health advice for travellers including vaccine usage, health hazards abroad and risk assessment for individuals, Malaria prophylaxis and advice.

KNOWLEDGE

- General principles of vaccinology and infectious disease
- Geographical patterns of disease
- Knowledge of vaccines including availability, efficacy and safety
- Problems of special groups of travellers, e.g. elderly, immunosuppressed
- Vaccinology in special patient cohorts
- Hazards of different types of travel
- Use and safety of antimalarial prevention measures
- Principles of organising a travel clinic
- Adverse drug reactions (ADR)
- Complications of returning traveller (see next session)

SKILLS

- Risk assessment for the individual traveller
- Take and record pre-travel medical and travel history
- Formulate and communicate appropriate verbal and written advice for traveller
- Administer immunisations and prescribe antimalarials as necessary
- Multidisciplinary team working
- Understand organisational and medico-legal aspects of travel clinic

ASSESSMENT & LEARNING METHOD

- Infectious Diseases Society of America Fellows In-Training Exam

TREATMENT

Objective: Trainees must have the ability to recognise and treat imported infections, to diagnose and manage imported infections.

KNOWLEDGE

- Clinical and epidemiological features of imported diseases, especially manifestations and differential diagnosis of malaria, typhoid, dengue, rickettsial infections
- Knowledge of strengths and limitations of specialised diagnostic tests
- Knowledge of on line and clinical specialist resources
- Management of imported infections

SKILLS

- Elicit and record appropriate travel history
- Recognise symptoms and signs of imported disease
- Select and interpret appropriate diagnostic tests
- Synthesise epidemiological, clinical and lab data into differential diagnosis
- Close liaison with the laboratory
- Manage common imported infections
- Recognise the need for interpreter services
- Review and revise the diagnostic considerations appropriately
- Prepare and interpret malaria smear

ASSESSMENT & LEARNING METHOD

- Study Day
- Clinical Club
- Infectious Diseases Society of America Fellows In-Training Exam

Management of Highly Infectious Agents

Objective: Trainees must have the ability to identify sources of specialist advice on highly infectious agents

KNOWLEDGE

- Knowledge of location and availability of tertiary care and advice lines
- Knowledge of printed and electronic information sources
- Knowledge of National Isolation Unit, MMH – access and guidelines
- Knowledge of unusual infections
- Knowledge on outbreak prevention and control

SKILLS

- Recognise when tertiary level care/advice is needed and to seek it
- Use printed and electronic information sources
- Awareness of own limitations and needs for specialist advice
- Ability to participate in regional team in the event of outbreak

ASSESSMENT & LEARNING METHOD

- Study day: Unusual infections (National Isolation Unit, Mater Hospital)
- Membership of regional outbreak team
- Infectious Diseases Society of America Fellows In-Training Exam

Infection and Immigrants

Objective: Trainees should acquire relevant knowledge of infections in immigrants and demonstrate their ability to assess, manage, record and effectively communicate with immigrants with acute and chronic infections

KNOWLEDGE

- Knowledge of health needs of different immigrant groups
- Epidemiological and clinical features of imported infection in immigrant groups
- Knowledge of the relative's rights and responsibilities
- Knowledge of population shifts
- Awareness of vaccine preventable disease in delayed entrants to the Irish Health Care system

SKILLS

- Work with interpreters and patient support groups
- Recognise both acute and chronic infections in immigrants
- Consider interactions of psychological and social well-being on the physical symptoms and show empathy with the patient
- Awareness of patient dignity, confidentiality, ethnic issues, need for an interpreter
- Update disease surveillance

ASSESSMENT & LEARNING METHOD

- Communication
- Ethics
- Infectious Diseases Society of America Fellows In-Training Exam

Interface with Related Infection Disciplines Particularly Public Health Medicine

Objective: Trainees must have the ability to interact with the community infection team

KNOWLEDGE

- Knowledge of risks of community or different imported disease, including rare situations that require urgent public health intervention
- Knowledge of epidemiological systems available for the control of disease and how to access them
- Epidemiological control

SKILLS

- Make accurate risk assessment
- Recognise when urgent epidemiological action is required
- Recognise who must be involved in epidemiological control in different settings
- Co-operative working in the multidisciplinary team

ASSESSMENT & LEARNING METHOD

- Study day - joint with Public Health
- Infectious Diseases Society of America Fellows In-Training Exam

Laboratory Medicine

Objective: To obtain an understanding of the role of the Microbiologist and Virologist and the importance of Microbiological techniques in Infectious Diseases and to understand the process and constraints around the microbiological report. Trainees must be competent to carry out basic microbiological bench work including critical interpretation of laboratory procedures in relation to laboratory diagnosis

KNOWLEDGE

Basic microbiological bench work

- Knowledge of microbiological basis of disease
- Knowledge of the pathological basis of tests and the laboratory factors affecting their interpretation

Microbiological reporting

- Knowledge of the pathways of microbiological reporting
- Knowledge of the boundaries of use of microbiological information in the context of clinical information

Knowledge of appropriate testing and interpretation of results

- Knowledge of the diagnostic tests available in the routine laboratory with understanding of further tests available at specialised centres
- Knowledge of antibiotic modes of action, side effects and interactions (see prior section)
- Knowledge of other interventions (e.g. abscess drainage) useful in management of infected patients
- Antibigrams and local resistance data
- Understanding of positive cytology results
- Knowledge of new developments in molecular diagnostics

SKILLS

- Perform laboratory tests identifying microorganisms (gram stains, malaria smears)
- Interpret the findings of microbiological investigations and recognise their limitations
- Establish close rapport and understanding with laboratory staff
- Communicate with colleagues and other doctors in different disciplines and enable them to appreciate the relevance of the data
- Interpret laboratory data in the context of clinical information
- Provide appropriate antibiotic and other management advice at the bedside and over the telephone when based in the lab
- Awareness of patient dignity, confidentiality and ethnic issues
- Consideration of interaction of psychological and social well being on the physical symptoms and demonstration of empathy to patients
- Interpret molecular diagnostics appropriately

ASSESSMENT & LEARNING METHOD

- One month in Microbiology laboratory
- Gram stain identification
- Study day - Link with Microbiology - Plate rounds - gram stains etc
- Infectious Diseases Society of America Fellows In-Training Exam

Management and Health and Safety Procedures

Objective: In addition to general health and safety procedures, trainees should be aware of the requirement to link with occupational medicine and laboratory management including health and safety procedures.

KNOWLEDGE

- Knowledge of the main health and safety procedures in the diagnostic laboratory and in category 3 isolation facilities
- Knowledge of regulations for handling of pathogens
- Knowledge of appropriate infection control policies

SKILLS

- Link with occupational health services for assessment and management of needlestick injuries
- Perform laboratory work in a safe manner consistent with local rules and national guidelines
- Understand and be sympathetic to the safety concerns of other laboratory staff

ASSESSMENT & LEARNING METHODS

- Infectious Diseases Society of America Fellows In-Training Exam
- Local hospital courses

Understanding of Prophylactic, Pre-Emptive and Therapeutic Prescribing

Objective: Trainees must demonstrate competence in the use of pre-operative antibiotic prophylaxis.

KNOWLEDGE

- Knowledge of the microbial agents likely to cause infection in different settings and their antimicrobial susceptibilities
- Understanding the principles underlying pre-operative prophylaxis

SKILLS

- Use of the knowledge to apply prophylaxis in the light of local epidemiological and individual clinical issues e.g. allergy
- Understand the needs and problems of the doctors managing the patient
- Be prepared to explain the issues of prophylaxis to patients
- Multidisciplinary team working

ASSESSMENT & LEARNING METHODS

- Antimicrobial stewardship committee membership

Research Methodology and Epidemiology

Objective: Trainees must demonstrate competence in research methodology including basic statistics.

KNOWLEDGE

Research

- Research methods
- Clinical trial design
- Statistical analysis and common statistical errors

Epidemiology

- Knowledge and understanding basic concepts/principles of epidemiology such as:
 - Measures of disease occurrence
 - Measures of disease frequency
 - Measures of effect
- Knowledge of different types of epidemiological study (case control, cohort)
- Knowledge of principles of surveillance
- Knowledge of the components of surveillance system from data collection to action
- Knowledge of principle of outbreak investigation – involvement in and understanding of process
- Field methods in epidemiology – undertaking an epidemiological study using appropriate instruments, questionnaires etc.
- Data analysis – ability to analyse data using basic software programmes, and using appropriate statistical tests
- Collaborative research with Departments of Public Health and/or Health Protection Surveillance Centre should be considered
- Appreciates the place of epidemiology in disease prevention and control

Mathematical models in infection

- Detailed knowledge of mathematical models
- Handling, interpretation and application of mathematical models
- Curiosity and an inquiring mind

SKILLS

- To know how to initiate appropriate research and clinical studies
- Research Ethics
- Experimental design, writing up
- Statistical analysis
- Appropriately assess importance of published work
- Curiosity and spirit of enquiry but healthy cynicism
- Be prepared to change practice in the light of published evidence
- Audit

ASSESSMENT & LEARNING METHODS

- Ethics
- Research Skills course
- Audit
- Publications
- Presentations at local, national or international meetings

Additional (Optional) Training

Objective: To have the opportunity for additional (optional) enhanced training in specific areas related to ID including: - clinical virology; clinical pharmacology; public health medicine and epidemiology; GU medicine; vaccinology; overseas practice.

Subject Matter

Clinical Virology
Clinical Pharmacology
Public Health and Epidemiology
GU Medicine
Vaccinology
Overseas Practice
Viral Hepatitis

- As appropriate to the needs of the individual trainee
- Enhancement of skills in the specific area of study

Recognition of “added value” of the additional targeted training

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 specialty coordinator

Minimum Requirements for Training

- These are minimum **tracking** requirements. This generally means that in practice, trainees will perform above the stated requirements; however, for record tracking purpose, the following figures have been allocated.
- Where the minimum requirement state “1”, there is no allocated minimum – eLogbook will automatically default to “1”.

| 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 | Form 052 |
| Personal Goals Review Form | Desirable | 1 | Training Post | Form 137 |
| Section 2 - Training Activities | | | | |
| Outpatient Clinics (please enter number of clinics as per timetable on a weekly basis) | | | | |
| Hepatitis B | Required | 5 | Training Programme | Form 001 |
| Hepatitis C | Required | 5 | Training Programme | Form 001 |
| ID Clinics | Required | 10 | Training Programme | Form 001 |
| TB Clinics | Required | 10 | Training Programme | Form 001 |
| STD Clinics | Required | 10 | Training Programme | Form 001 |
| HIV Clinics | Required | 10 | Training Programme | Form 001 |
| Ward Rounds/Consultations | | | | |
| Consultant Led (minimum 1 per week) | Required | 40 | Year of Training | Form 144 |
| SpR Led (minimum 1 per week) | Required | 40 | Year of Training | Form 144 |
| Consultations (OPAT – Outpatient Parental Antibiotic Therapy) | Desirable | 1 | Year of Training | Form 144 |
| Emergencies/Complicated Cases (Diagnosis of nature of problem and its presentation, emergency case for investigation) | Desirable | 1 | Year of Training | Form 003 |
| Procedures/Practical Skills/Surgical Skills | | | | |
| Gram Stain interpretation (10 stains in Microbiology) | Required | 10 | Training Programme | Form 004 |
| Malaria Smear interpretation (5 throughout training) | Required | 5 | Training Programme | Form 004 |
| Additional/Special Experience Gained | | | | |

| Curriculum Requirement | Required/Desirable | Minimum Requirement | Reporting Period | Form Name |
|---|--------------------|---------------------|--------------------|-----------|
| Epidemiology, Public Health (A period of interface is desirable to enable the trainee to become familiar with principles and practicalities of immunization, vaccination, and the investigation and control of notifiable diseases and outbreaks in the community) | Desirable | 1 | Training Programme | Form 005 |
| Genito-Urinary Medicine (Experience in Genito-Urinary Medicine is essential up to 6 months recognised) | Desirable | 1 | Training Programme | Form 005 |
| Paediatric Infectious Diseases | Desirable | 1 | Training Programme | Form 005 |
| Other: (Tropical Medicine, Paediatrics etc. Arrangements should be made to attend if possible, Hepatology and Pulmonary/TB clinics (for 6 months)) | Desirable | 1 | Training Programme | Form 005 |
| Laboratory Experience (Medical Microbiology - period of 2 months is essential, and up to 6 months at an appropriate level can be recognised. During this period the trainee should develop expertise in providing advice on the appropriate use of the laboratory and on antimicrobial chemotherapy to clinicians) | | | | |
| Microbiology (minimum required 1 month in microbiology, 1 month virology or similar (such as Hepatitis C clinic)) | Required | 1 | Training Programme | Form 018 |
| Molecular Diagnostics (1 month in Virology or Molecular Diagnostics) or similar clinical experience | Desirable | 1 | Training Programme | Form 018 |
| ICU/CCU Cases | | | | |
| Intensive Care (Experience of Management of patients in an ITU is essential. A period spent in this environment should provide experience in the prevention and treatment of nosocomial infection, and include participation in ward rounds.) | Required | 1 | Training Programme | Form 090 |
| Management Experience | Required | 1 | Training Programme | Form 110 |
| Section 3 - Educational Activities | | | | |
| Mandatory Courses | | | | |
| ACLS | Required | 1 | Training Programme | Form 006 |
| Ethics Foundation | Required | 1 | Training Programme | Form 006 |
| Ethics for General Medicine | Required | 1 | Training Programme | Form 006 |
| An Introduction to Health Research | Required | 1 | Training Programme | Form 006 |
| HST Leadership in Clinical Practice | Required | 1 | Training Programme | Form 006 |
| Performing Audit | Required | 1 | Training Programme | Form 006 |
| Mastering Communications | Required | 1 | Training Programme | Form 006 |
| Wellness Matters | Desirable | 1 | Training Programme | Form 006 |
| Study Days | Desirable | 6 | Year of Training | Form 008 |
| National/International meetings | Required | 1 | Year of Training | Form 010 |
| Participation at In-house activities (minimum of 1 per month from the categories below:) | | | | |
| Grand Rounds (minimum 1 per month) | Required | 10 | Year of Training | Form 011 |

| Curriculum Requirement | Required/Desirable | Minimum Requirement | Reporting Period | Form Name |
|---|---------------------------|----------------------------|-------------------------|------------------|
| Minimum 3-4 per week of the following: | | | | |
| Journal Clubs | Required | 20 | Year of Training | Form 011 |
| MTD meetings | Required | 20 | Year of Training | Form 011 |
| Radiology Conferences | Desirable | 20 | Year of Training | Form 011 |
| Lecture | Required | 20 | Year of Training | Form 011 |
| Seminar | Required | 20 | Year of Training | Form 011 |
| Examinations | | | | |
| Infectious Diseases Society of America Fellows In-Training Exam | Required | 2 | Training Programme | Form 012 |
| Delivery of Teaching | Required | 10 | Year of Training | Form 013 |
| Research | Desirable | 1 | Training Programme | Form 014 |
| Audit activities and Reporting (1 per year either to start or complete, QI projects can be uploaded against audit) | Required | 1 | Year of Training | Form 135 |
| Publications | Desirable | 1 | Year of Training | Form 016 |
| Presentations | Required | 1 | Year of Training | Form 017 |
| Committee Attendance | Required | 1 | Training Programme | Form 063 |
| Additional Qualifications | Desirable | 1 | Training Programme | Form 065 |
| Section 4 - Assessments | | | | |
| CBD | Required | 1 | Year of Training | Form 020 |
| Mini-CEX (At least two Mini-CEX assessments) | Required | 2 | Year of Training | Form 023 |
| Quarterly Assessments/End-of-Post Assessment | Required | 4 | Year of Training | Form 092 |
| End-of-Year Assessments | Required | 1 | Year of Training | Form 092 |