



ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

HIGHER SPECIALIST TRAINING IN INFECTIOUS DISEASES



This curriculum of training in Infectious Diseases was developed in 2010 and undergoes an annual review by Prof. Colm Bergin and Dr. Catherine Fleming, National Specialty Directors, Dr. Ann O'Shaughnessy, Head of Education and Professional Development and by the Infectious Diseases Specialty Training Committee. The curriculum was approved by the Irish Committee on Higher Medical Training.

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Introduction

Infectious Diseases is a clinical specialty of internal medicine focusing on the assessment, diagnosis and management of acute and chronic infections.

Besides these specialty specific elements, trainees in Infectious Diseases must also acquire certain core competencies which are essential for good medical practice. These comprise the generic components of the curriculum.

Aims

Upon satisfactory completion of specialist training in Infectious Diseases, the 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 Infectious Diseases, 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 Infectious Diseases.
- 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 describes the knowledge, skills, attitudes and behaviours expected by patients and society from individuals during the practice of their profession (*as a doctor*). It includes such concepts as:

- The skills of lifelong learning and the maintenance of competence
- Information literacy
- Ethical behaviour
- Integrity, honesty
- Altruism
- Service to, justice and respect for others
- Adherence to professional codes

Entry Requirements

Applicants for Higher Specialist Training (HST) in Infectious Diseases must have completed a **minimum** of two years Basic Specialist Training (BST) in approved posts and obtained the MRCPI or equivalent.

BST* should consist of a minimum of 24 months involved with direct patient care.

BST in General Internal Medicine (GIM) is defined as follows:

- A minimum of 24 months in approved posts, with direct involvement in patient care and offering a wide range of experience in a variety of specialties.
- At least 12 of these 24 months must be spent on a service or services in which the admissions are acute and unselected.
- For further information please review the BST curriculum

Those who do not hold MRCPI or MRCPUK must provide evidence of equivalent qualification.

Duration & Organisation of Training

The duration of HST in Infectious Diseases is 4 years, one year of which **may** be gained from a period of full-time research. Those who wish to obtain dual certification in Infectious Diseases and e.g. in General Internal Medicine will require at least a fifth year of training.

Essential:

- Microbiology +/- Virology
- Management of Sexually Transmitted Infections
- Management of Complex Nosocomial Infections
- Management of Community-Acquired Infections
- Management of HIV Infection
- Management of the Immunosuppressed Host
- Infection in the returning traveller & International Health
- Hospital Epidemiology (Infection Control and Outbreak Management)
- Committee Memberships

Desirable:

- Public Health
- Travel Clinic
- TB clinics
- Hepatology Clinics
- Immunology Clinics
- Paediatric ID Experience

No particular order or sequence of training will be imposed and programmes offered should be flexible i.e. capable of being adjusted to meet trainees' needs. The earlier years will usually be directed towards acquiring a broad general experience of Infectious Diseases 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.

If an intended career path would require a trainee to develop further an interest in a sub-specialty within Infectious Diseases (*e.g. Hospital Epidemiology*) this should be accommodated as far as possible within the training period, re-adjusting timetables and postings accordingly.

"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

re-affirm 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 SpR's suitability and ability to become independently capable as a specialist.

Flexible Training

Trainees who are unable to work full-time are entitled to opt for flexible training programmes. EC Directive 93/16/EEC requires that:

Part-time training shall meet the same requirements as full-time training, from which it will differ only in the possibility of limited participation in medical activities to a period of at least half of that provided for full-time trainees;

The competent authorities shall ensure that the total duration and quality of part-time training of specialists are not less than that of full-time trainees.

The above provision must be adhered to. A flexible trainee should undertake a *pro rata* share of the out-of-hours duties (*including on-call and other out of hours commitments*) required of their full-time colleagues in the same programme and at an equivalent stage.

for details of appointment and funding arrangements for flexible trainees, please see the current issue of the HST training Handbook.

Training Programme

The training programme offered will provide opportunities to fulfil all the requirements of the curriculum of training for Infectious Diseases programme will offer 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 Specialty Director for Infectious Diseases or, in the case of GIM, the Regional Specialty Advisor. 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. A Specialist Registrar may **not** remain in the same unit for longer than 2 years of clinical training; or with the same trainer for more than 1 year.

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.

Teaching, Research & Audit

All trainees are required to participate in teaching. They should also receive basic training in research methods, including statistics, so as to be capable of critically evaluating published work.

A period of supervised research relevant to Infectious Diseases is considered highly desirable and will contribute up to 12 months towards the completion of training. Some trainees may wish to spend two or three years in research leading to a MSc, MD, or PhD, by stepping aside from the programme for a time. Additional educational credit may be granted at the discretion of the NSD and STC for clinical work relevant to the curriculum undertaken during the second and subsequent years of this research, up to a maximum of six months credit. For those intending to pursue an academic path, an extended period of research may be necessary in order to explore a topic fully or to take up an opportunity of developing the basis of a future career. Such extended research may continue after the CSCST is gained. However, those who wish to engage in clinical medical practice must be aware of the need to maintain their clinical skills during any prolonged period concentrated on a research topic, if the need to re-skill is to be avoided.

Trainees are required to engage in audit during training and to provide evidence of having completed the process.

Logbook

Up-to-date training records and a portfolio of achievements will be maintained by the trainee throughout HST. 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 Infectious Diseases Curriculum. They will remain the property of the trainee and must be produced at the annual assessment review.

Each trainee is responsible for maintaining an up-to-date record of progress through training and compiling a portfolio of achievements for presentation at 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. Trainees must co-operate with other stakeholders in the training process. It is in a SpR's own interest to maintain contact with the Medical Training Office and Dean of Higher Specialist Training, and to respond promptly to all correspondence relating to training. "Failure to co-operate" will be regarded as, in effect, withdrawal from the HST's supervision of training (*see the HST Training Handbook*).

At annual review, the Training Record will be examined. The results of any assessments and reports by educational supervisors, filed in the portfolio submitted, together with other material capable of confirming the trainee's achievements, will be reviewed.

Assessment Process

The methods used to assess progress through training must be valid and reliable. The Infectious Diseases 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 annual review. 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.

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.

Annual Review – The PeTRA Process

An annual review of progress through training will be undertaken on behalf of HST. The training record will be examined at the review. Assessments and reports by educational supervisors, confirmation of achievements and the contents of the portfolio will be reviewed. A decision is made regarding progress, as detailed in the Training Handbook. At some or all of these annual reviews a non-specialty assessor will be present capable of addressing core competencies. An external assessor will participate in the penultimate year review (PYA) which is held to a standard format

usually 12-18 months before the planned end of training. The award of a CSCST will be determined by a satisfactory outcome after completion of the entire series of PeTRA assessments.

Each year trainees undergo a formal review by a panel including the Dean (or Dean's representative), the National Specialty Director, and whenever possible, a representative member from another specialty. 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. Attendance by the trainer is highly desirable and essential for the first year and PYA assessments. 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 decision on progress through training is reached at each of these annual assessments. The determination and the evidence considered is entered on one of a set of standard PeTRA Forms as follows:

- Successful completion of a year of training – **PeTRA Form C**
- completion but with a need for additional targeted training – **PeTRA Form C₁**
- repeat training year – **PeTRA Form C₂**

The penultimate year assessment (*the PYA*) reviews the evidence provided in the logbook on the results of the assessment methods employed (*see above*); the evidence provided will be further questioned during the assessment. At the PYA, the panel identifies the residual training outstanding, advising adjustments to the training schedule as necessary, and finally confirming the estimated date for completion (**PeTRA Form T and CSCST issuance**).

Facilities

A consultant trainer/educational supervisor has been identified for each approved post. He/she will be responsible for ensuring that the educational potential of the post is translated into effective training which is being fully utilized. The training objectives to be secured should be agreed between 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.

All training locations approved for HST have been inspected by the medical training department. Each must provide an intellectual environment and a range of clinical and practical facilities sufficient to enable the knowledge, skills, clinical judgement and attitudes essential to the practice of Infectious Diseases to be acquired.

Physical facilities include the provision of sufficient space and opportunities for practical and theoretical study; access to professional literature and information technologies so that self-learning is encouraged and data and current information can be obtained to improve patient management.

Trainees in Infectious Diseases should have access to an educational programme of e.g. lectures, demonstrations, literature reviews, multidisciplinary case conferences, seminars, study days etc, capable of covering the theoretical and scientific background to the specialty. Trainees should be notified in advance of dates so that they can arrange for their release. For each post, at inspection, the availability of an additional limited amount of study leave for any legitimate educational purpose has been confirmed. Applications, supported if necessary by a statement from the consultant trainer, will be processed by the relevant employer.

Teaching, Learning & Assessment Methods

Teaching, Learning & Assessment Methods

This section relates to the clinical competencies that are required for your training. During your training you will be assessed by methods such as miniCEX. It is extremely important that you read this so that you are aware of the requirements of your training.

Record of Training

The evidence required to confirm progress through training includes:

- Details of the post(s) occupied, the training plan agreed with weekly timetables and duty rosters; case-mixes and volumes, numbers of practical procedures and outcomes.
- Confirmation of attendance at events in the educational programme, at departmental and inter-departmental meetings and other (optional) educational events.
- Confirmation (certificates) of attendance at subject-based/skills-training/instructional courses; (certificate or diploma from appropriate authority).
- Recorded attendance at conferences and meetings.
- A properly completed logbook with entries capable of testifying to the training objectives which have been attained and the standard of performance achieved.
- Evidence of regular contact with trainers, i.e. appraisals; confirmation of workplace/clinical encounters significant in relation to activities specified in the curriculum.
- Evidence of personal study, e.g. journals taken, membership of specialist society, web-based research, special interest developed.
- CPD/CME activity, returns, study leave records.
- Copies/examples of material prepared for presentation e.g. for audit, teaching, best-practice development, collection of cases, topic reviews, output from research.
- Educational supervisor's reports on **observed** performance (in the workplace): of duties, practical procedures, of presentations made and teaching activity: of advising and working with others, of standards of case notes, correspondence, communication with others e.g. at handover. Results of Mini-CEX encounters.
- Collective opinions – as used to ascertain a range of generic skills e.g. professionalism, maintaining trust.
- Result (diploma, certificate from recognised body) of completed knowledge-based test and/or practical examination.

Assessment of Competencies

The competencies to be acquired during training are listed within the Generic and Specialty Sections of this Curriculum.

The competencies will be assessed on a regular basis during your training programme and must be documented in the Training Record (*Logbook*). Progress through training is confirmed by entries which must be authenticated/ countersigned by the educational supervisors.

Documents which provide evidence of satisfactory completion of other necessary components of the curriculum must be filed in the portfolio of achievements compiled by the trainee and reviewed annually.

A report from the educational supervisor will be included. This will be prepared following appraisal, based on his/her assessment of observed performances by the trainee of practical procedures and other duties. The standard of case notes, summaries, correspondence and other material, of presentational ability can also be the subjects of such report, as could the trainee's enthusiasm, judgement, team working or professionalism.

The trainer's report will also be based on a structured pro-forma, as used in the short form of clinical evaluation exercise (*Mini-CEX*).

The results of any summative tests of knowledge taken, e.g. *MCQs and problem-solving tests, including self-administered tests*, should be filed and retained. Confirmation of the acquisition at a particular stage of a specified professional examination may be required in order to make progress towards the completion of training.

Learning Methods

This section gives examples of the learning methods that can be used as guidance to acquire competencies as they appear in the curriculum.

Experiential:

- Working under supervision
- Documenting/reporting progress (*case notes*), preparing summaries (*discharge notes*) other professional correspondence; communicating information to patients/to other health professionals.
- Consults, referrals between departments, handover, providing cross-cover.
- (*In certain specialties*), procedure room and investigation/assessment sessions offer practical opportunities to learn and develop skills under supervision and to exercise judgement when to seek assistance.

Self-directed learning:

- Curriculum-based personal study *e.g. textbooks, journals, literature search, retrieval of web-based information.*
- Information gathering and evaluation
- Active participation in audit
- Tests of knowledge – Infectious Diseases Society of America Fellows In-Training Exam

Group learning:

- Workplace discussions
- Multidisciplinary meetings
- Programmed meetings within the workplace

Performance based:

- Observing, learning, assisting, performing, demonstrating a technique or practical procedure.
- Simulations, role-play

Learning through teaching and research:

- Teaching, giving tutorials, lecturing.
- Mentoring and supervising junior colleagues and other staff.
- Presenting at meetings - local and international.
- Research
- Publication

External Courses:

- Specialty study/training days
- Attending mandatory and non-mandatory courses
- Attendance at seminars, relevant conferences, regional, national and international meetings.

Reflection

- In your logbook there is an area to record reflections on training, learning, clinical events and career discussions. In recent years the importance of reflecting as part of the learning process on what you are doing has been shown to improve professional practice. Reflection on what you know and don't know helps to understand that learning is individual and reflection of professional activities can be used to highlight your strengths, weaknesses and areas for development.

Assessment Methods

Mini-CEx

Definition: Mini-CEx is designed to provide feedback on skills essential to the provision of good clinical care by observing an actual clinical encounter.

Description: The mini-CEx is a “snapshot” of a doctor/patient interaction and is based on a 15 minute observation of a single interaction. It is designed to assess the clinical skills and behaviors of trainees assessing such skills as history taking, physical examination skills, clinical judgement, professionalism, organisation/efficiency and overall clinical care. Not all elements will be assessed on each occasion. Immediate feedback should be provided after each encounter by the observer assessing the trainee.

Frequency of assessment: At least two miniCEx assessments should take place in each year of training. Where appropriated, one should be based in an outpatient setting and one in an acute setting. The assessments include assessment of skills in history taking, physical examination, appropriate use of investigations, cost-effectiveness, interpretation of investigations, making medical notes, making a diagnosis, treatment and management of disease, appropriate referral to other specialities, standards of care.

Competencies assessed:

- Consideration/Professionalism:
- Recognises/accepts patient’s rights (to consent, confidentiality, information). Establishes trust, shows professional approach.
- Communication:
 - Informs, explains, advises using appropriate language. Obtains consent, enlists patient’s co-operation.
- Interviewing Skills:
 - Active” listening facilitating relevance; effectively using questions, responding to non-verbal clues.
- Examination Skills:
 - Prepares patient, minimises discomfort/unease. Proceeds logically, efficiently, thoroughly, completely.
- Judgement:
- Correctly identifies/lists problems, prioritises actions in realistic and timely schedule.

Opportunities for assessment: The assessment should take place in the usual place of work (*in-patient, clinic, office or department*) where the assessor must directly **observe** the trainee’s performance.

Mandatory Training Courses

(Note: this list only included the generic mandatory courses)

Mandatory Communication course:

To be completed in Year 1. The course is a short 1 -2 hour course at the start or the end of specialty study days to reduce time spent away from the hospitals.

Communication skills will be assessed as part of the miniCEX assessments

Audit:

Mandatory 1/2 day on audit to be completed in Year 1.

Audit reports are submitted on a yearly basis

Ethics:

Four mandatory study days are to be completed during the training programme. Three study days are for all specialities - Ethics & Law, Ethics in Research and Professionalism. The fourth day 'End of life' is for all specialties except Public Health Medicine, Occupational Medicine and Histopathology who have a speciality specific ethics day.

Risk assessment:

Delivered on-line

Leadership Skills:

Mandatory 3 day course to be taken in year 3 - 5.

ACLS:

ACLS compliant in appropriate specialties

Specialty Study Days:

The number and topics of the specialty study days are listed as part of the specialty curricula.

Annual Assessments

Consultant feedback:

End of year assessment completed by the Trainers include assessment in areas such as: Team working skills, Leadership skills, Handling of complaints, conflict management

Questions such as the following are included in the assessment form:

- Have there been any complaints from nursing staff, AHP, patients regarding this trainee or their team?
- If so:
 - How did the trainee respond to a complaint about a member of his/her team?
 - How did the trainee respond to a complaint against him/her?.
- Have you any serious issue with your SpR?
- Where there any instances of serious conflict?
- Do you think he/she behaved appropriately?

Audit:

It is difficult to complete the audit cycle in a one year period. Each year the trainee should take part in an audit - either to develop and start an audit or to review and change practice as a result of an audit - the complete audit cycle should be understood. In hospitals that have audit systems set up, the trainee should complete a full audit.

Trainees will be required to submit a full audit report and will be encouraged to present audit results at local, national or international meetings.

Attendance at In- Hospital Speciality Radiology conferences

Time spent in Laboratory/Pathology or attendance at Laboratory/Pathology conferences
(Depending on specialty)

Committee membership:

Many specialty curricula have identified participation in committees.

Teaching skills

Number of undergraduate and postgraduate tutorials, number of membership tutorials.

Presentations/Publications

On-Call take

GENERIC COMPONENTS

Communication & Interpersonal Skills

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

Medical Council Domains of Good Professional Practice: No. 2: Relating to Patients; No 3. Communication and Interpersonal Skills.

KNOWLEDGE

Within a consultation

- How to structure an interview to obtain/convey information; how to identify concerns, expectations, priorities; how to promote understanding, reach conclusions; use/choose appropriate language. Knowledge of procedures/investigations available and alternative options; of strategies to promote compliance through understanding of objectives.
- Able to elicit facts, question using open, followed by closed questions; “active listening”. Gives information clearly, avoids jargon, confirms understanding, is able to encourage co-operation, compliance; obtain informed consent.
- Considerate, shows respect for other’s culture, opinions, patient’s right to be informed, make choices.

In difficult circumstances

- Understands potential areas for difficulty “awkward situations”, knows how and when to break bad news, how to circumvent cultural, language barriers, deal with sensory or mental impairments, how to deal with challenging or aggressive behaviour.
- Able to communicate essential information where difficulties exist, appropriately uses assistant, interpreter, chaperone, relatives. Able to deal with anger, frustration in self and others.
- Selects an appropriate environment; seeks assistance, makes and takes time. Avoids unrealistic optimism or pessimism.
- Respects another’s right to opinions and to accept or reject advice.

With professional colleagues and others

- How best and when to communicate with doctors and other members of the healthcare team; how to provide concise, problem-orientated statement of facts and opinions (*written, verbal or electronic*). Knows legal context status of records and reports, of data protection (*confidentiality*), Freedom of Information (FOI) issues.
- Understands relevance to continuity of care and the importance of legible, accessible, authenticated records. Knows when urgent contact becomes necessary and the appropriate place for verbal, telephone, electronic, written communication.
- Communicates effectively, promptly; recognises roles and skills of other health professionals.
- Able to judge own abilities/limitations and when to seek help or give assistance, advice to others; when to delegate responsibility, when to refer.
- Values perspectives of others contributing to management decisions.

In maintaining continuity of care

- Understands the relevance to outcome of continuity of care, within and between phases of healthcare management.
- The importance of completion of tasks and documentation *e.g. before handover (to another team, department, specialty)*, of identifying outstanding issues, uncertainties.
- Maintains (*legible*) records, is available, contactable, time-conscious, sets (*and attempts to reach*) realistic objectives, identifies/prioritises outstanding problems.
- Alert to avoid potential confusion or misunderstanding through communications failure.

Giving explanations

- The importance of possessing the full facts, and of recognising uncertainty and conflicting evidence on which decisions have to be based.
- How to secure, retain attention avoid distraction. Understand how adults receive information best, the relative value of the spoken, written, visual means of communication, use of reinforcement to assist retention. Risk of information overload.
- Need to interpret results, significance of findings, diagnosis, to explain objectives, limitations, risks of treatment, in terms and by means adjusted to recipients' ability to comprehend.
- Uses language, literature (*leaflets*) diagrams, educational aids and resources appropriately.
- Able to achieve level of understanding necessary to achieve co-operation (*compliance, informed choice, acceptance of opinion, advice, recommendation*).
- Prepared to discuss, repeat information, resolve uncertainty, confusion, respond to questioning, challenge.

Responding to complaints

- Value of hearing and dealing with complaints promptly; the appropriate level, the procedures (*departmental and institutional*); sources of advice, assistance available.
- The importance of obtaining and recording accurate and full information, seeking confirmation from multiple sources.
- Able to establish facts, identify issues and respond quickly and appropriately to a complaint received.
- Accepts responsibility, involves others, consults appropriately.
- Open, prepared to accept criticism, acknowledge shortcomings where they exist, offer an apology.

SKILLS

- Communication
- Conflict resolution
- Dealing with complaints
- Communicate decisions in a clear and thoughtful manner
- Presentation skills

ASSESSMENT & LEARNING METHODS

- 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

Professionalism & Autonomy

Objective: *To have the knowledge, skills and attitudes to act in a professional manner at all times and in partnership with patients and colleagues. To develop the attributes of someone trusted to be able to manage complex human, legal and ethical problems.*

Medical Council Domains of Good Professional Practice: No. 1 Patient Safety and Quality of Patient Care; No 2. Relating to Patients; No. 7 Professionalism

KNOWLEDGE

Patient Centred Care;

- The provision of Patient Centre Care should be at the core of the service a doctor provides
- To put the quality and safety of patient care as a prime objective

Behaviour in the workplace;

- **Relationships with patients**
 - Know patients' rights e.g. to be informed sufficiently to enable them to be involved in decisions about their treatment and care. Know boundaries limiting consultations including ethical, duty of care.
 - How to deal with inappropriate behaviour e.g. *aggression, threats, violence, harassment, racism.*
 - Potential obstacles e.g. *cultural, educational, ethical – also preconceptions and prejudices.*
 - Ensures confidentiality, respects privacy. Focuses investigation on patient's needs and expectations. Shows sensitivity, develops empathy but avoids personal involvement.
 - Non-judgemental in approaching patient's perceived problems. Prepared to accommodate idiosyncrasies, respecting patients as individuals. Altruistic.
- **Working with colleagues**
 - Know the potential roles and contributions of other specialists – medical, surgical, general practitioners and of other hospital or community-based agencies e.g. *social services, also patient support groups and other providers of care.*
 - How to arrange cover, safeguarding the handover process, know where responsibility begins and ends, when and where to seek advice.
 - Aware of the extent and limitations of own areas of practice/expertise; recognises and respects others' inputs, capabilities; is able to work co-operatively with other health professionals; refers, delegates appropriately.
 - Realistically schedules and completes tasks and provides full documentation for handover, referral; strives to maintain continuity and standard of care especially across shifts and when arranging rotas and covering absences.
 - Conscientious, reliable, responsible and professional at all times, considerate, shows respect for opinions of others, values good advice, accepts constructive criticism.

Creating an environment conducive to learning and improvement

- Endeavours to foster an environment conducive to learning
- Shares knowledge with trainees, students and other members of the multidisciplinary team
- Encourages and is open to reflective practice
- Seeks out role models and learns from the best practice behaviours of others.
- Participates in quality assurance and clinical improvement systems & training
- Uses evidence based practice in decision making
- Participates in journal clubs, case presentations, grand rounds

Time management & continuity of care

- Is punctual for duty, meetings, handovers and other duties
- Prioritises workload
- Delegates when appropriate to do so
- Knows when to call for help
- Ensures satisfactory handover to ensure continuity of care
- Ensures satisfactory transfer of patients to other medical teams or services when required
- Makes adequate arrangements to cover holidays, study and other leave

Honesty & Integrity

- Acts with honesty and integrity at all times in the delivery of patient care and in working with professional colleagues
- Acts fairly in all situations.

Moral Reasoning & Legal and ethical issues (see also Ethics section)

- Describes and demonstrates an understanding of the main principles of medical ethics including autonomy, justice and confidentiality
- Understands correct procedures for obtaining consent (for treatment, investigations, procedures, research project, post mortem). Legal responsibilities surrounding death/disease certification; regarding mental illness; referrals to coroner; also in criminal cases.
- Understands issues surrounding confidentiality, disclosure/release of information; discovery (FOI) of records. Legal and ethical issues in context of resuscitation, organ donation/transplantation.
- Able to complete certificates, documents, respects patient's wishes, rights, but accepts a doctor's (legal) obligations to society. Able to obtain/provide in full, information relevant to consent.
 - Alert to possible legal implications and ethical aspects of actions
 - Ensures privacy when discussing sensitive issues
 - Seeks timely advice where patient abuse is suspected

Team working and leadership

- How teams work, know how to assign individual and collective responsibilities which respect an individual's (*professional*) status within a team. How to set goals, initiate/ coordinate action, audit performance, give feedback, e.g. developing guidelines, protocols.
- Positively contributes to planning, motivating, organising activity, employs negotiating, human relations, interpersonal skills appropriately.
- Able to set and apportion individual and team objectives, energise and fortify others to sustain efforts to achieve goals, appraise performance.
- Co-operates as team player; respects the contributions, expertise of others; tolerant but determined as team leader.
- Adopts a holistic approach to patient care
- Knowledge of principles of audit and self assessment

Health-Physical health and Handling Stress & Fatigue

- Know how stress can affect performance, how to reduce stress and develop coping mechanisms to deal with pressure. When to enlist support.
- Understand the relevance of personal health to performance at work: the risks of self-medication, potential for drug and alcohol abuse: know that support is available from Occupational Health Services.
- Able to recognise, cope with stress; asks for help when necessary, is aware of responsibility (*to others*) of having health problems dealt with. Willing to take time off; and, if necessary, re-train/redevelop skills.

Commitment to Continuous Improvement in Health care Systems

- Understands the principles of quality and safety improvement
- Participates in quality improvement activities, including standard setting, follows established practice guidelines, research and audit
- Undergoes training in this area where appropriate

SKILLS

- Professionalism
- Multidisciplinary team working
- Ethical issues
- Leadership
- Time management
- Stress management

ASSESSMENT & LEARNING METHODS

- RCPI Ethics programme: Ethics I, Ethics II, Ethics III and Ethics IV (mandatory)
- 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
- Leadership Programme (Year 3 – 5)

Maintaining Good Practice

Objective: To adopt the habits of lifelong learning, and to appreciate and implement the practices of clinical governance.

Medical Council Domains of Good Professional Practice: No. 1 Patient Safety and Quality of Patient Care, No. 6 Scholarship, No 7 Professionalism, No 8 Clinical Skills

KNOWLEDGE

Lifelong learning

- Aware of CME/CPD obligations, systems/process for competence assurance/revalidation. Understand the role of appraisal, assessment methods available their application.
 - Sources, resources, opportunities for self-directed and group learning including IT. Know how adults learn.
 - Recognises and makes effective use of learning opportunities, maximises the potential for personal study, plans personal development.
 - Self motivated, inquisitive, eager to learn.

Application of clinical governance

- Understand the principles of evidence-based practice, clinical audit and effectiveness, the development/application of best-practice protocols.
- Able to appraise and apply data from research, and to use audit to establish best practice and clinical effectiveness. Utilizes and practices evidence-based medicine.
- Accepts the need for reflective practice and to critically evaluate own work and make changes.

Risk management

- Systems, procedures for identifying (*clinical*) risk; correct procedures and action when things go wrong; how to handle complaints.
- Employes procedures and policy for accidents, injuries; for confirming skill and staffing levels, arranging cross-cover, on-call, for supervision.
- Potential complications or side effects of treatments, procedures and investigations; importance of accurate, recent information and available records. The assessment of risk, relative risk.
- Able to assess, anticipate, risks; recognise failure. Openly discuss bad outcomes, locate system weakness, analyse critical incidents.
- Able to discuss potential risks *e.g. with patients, to analyse and balance risk with benefit*. Able to learn from previous experience, from complaints received, errors.
- Is honest in recognising misjudgements.

Evidence, audit, guidelines

- 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.
- Capable of accessing relevant data (library, internet use). Able to appraise available evidence critically.
- Able to complete an audit cycle relevant to practice; to develop, evaluate, review and update a set of guidelines.
- Uses evidence / guidelines appropriately having due regard for the individual.

SKILLS

- Personal development planning
- Evidence -based practice
- Risk Management
- Audit
- Research

ASSESSMENT & LEARNING METHODS

- Record of attendance at journal clubs, medical grand rounds, SpR teaching sessions, local and national academic meetings
- Record of attendance at CME accredited international meetings
- Attendance at local radiology conferences
- Time spent in laboratory or attendance at laboratory conferences
- Audit Study Day (Year 1)
- Annual Audit
- Leadership Skills Course (Year 3- 5)
- Research Publications
- Consultant feedback at annual assessment
- Workplace based assessment e.g Mini-Cex, DOPS, CBD

Standards Of Care

Objective: To be able to assess patients' problems investigate and treat them appropriately, efficiently, and consistently over time.

Medical Council Domains of Good Professional Practice: No. 1 Patient Safety and Quality of Patient Care; No. 2 Relating to Patients; No. 3 Communication and Interpersonal Skills; No. 4 Collaboration and Teamwork; No. 5 Management (including Self Management; No. 8 Clinical Skills,

KNOWLEDGE

History taking and examination

- Diagnostic significance of patterns of symptoms, pathophysiology and physical signs.
- Able to take and analyse a clinical history and perform a reliable and appropriate examination, arrive at a differential diagnosis.
- Exhibit empathy and show consideration for all patients, their impairments and attitudes irrespective of cultural and other differences.

Investigation, indications, risks, cost-effectiveness

- Understand the pathophysiological basis of the investigation undertaken.
- Know and be able to explain the procedure for the commonly used investigations, preparations, effects or risks, the reason for the investigation, the information sought and its relevance to management.
- Sensitivity and specificity of results, possible interferences, artefacts.
- Able to understand significance, interpret and explain results of investigations.
- Shows logical approach in choosing, sequencing and prioritising investigations.
- Able to liaise, discuss, negotiate effectively with those undertaking the investigation.
- Careful to select investigations appropriately, considering (*patients'*) needs, risks, value.

Treatment and management of disease

- Understand the pharmacology, therapeutics of treatments prescribed, choice of routes of administration, dosing schedules, compliance strategies; the objectives, risks and complications of treatment cost-effectiveness. Natural history of diseases; quality of life concepts.
- Able to assess accurately patient's needs, to prescribe administer, deliver, arrange treatment; recognise and deal with reactions / side effects. Sets realistic therapeutic goals, utilizes rehabilitation services, palliative care appropriately.
- Able to discuss rationale, objectives, risks and alternative options openly, taking into account patients' / their relatives' attitudes, beliefs or other philosophical concepts.
- Recognises that the degrading effects of illness, especially incapacity which is chronic, impacts on relationships and family, having financial as well as social effects.
- Discusses, plans, delivers care appropriate to patient's needs and wishes.

Disease prevention and health education

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

- Able to advise on and promote lifestyle change, stopping smoking, control of alcohol intake. Able to assess and explain risk, encourage positive e.g. *immunisation* and negative preventive measures.
- Enlists / requires patients' involvement in solving their health problems, provides information, education. Avails of support provided by voluntary agencies and patient support groups, as well as expert services e.g. *detoxification / psychiatric services*.
- Non-judgemental approach to patient's problem: values contributions of health education and disease prevention to health in a community.

Notes, records, correspondence

- Understand the functions of medical records, their value as an accurate up-to-date commentary and source of data.
- Understand the need and place for problem-orientated discharge notes, letters, more detailed case reports, concise out-patient reports, focused reviews.
- Compiles adequate case notes, with results of examinations, investigations, procedures performed, sufficient to provide an accurate, detailed account of the diagnostic and management process and outcome. Provides concise, informative progress reports orally.
- Maintains legible, authenticated records, uses dictation, telephone, e-mail appropriately.
- Appreciates importance of up-to-date, accurate information, its availability, transfer and the need for communicating promptly e.g. *with primary care*.

Time management and decision taking

- How to prioritise demands, respond to patients' needs, sequence urgent tasks. Understand how to establish (*clinical*) priorities e.g. *for investigations, intervention; how to set realistic goals; understand the need to allocate sufficient time, know when to seek help*.
- Understands the need to complete tasks, reach a conclusion, make a decision, take action with allocated time.
- Able to recognise when falling behind and can adjust accordingly; able to cope with changing circumstances, variable demand, prepared to re-prioritise and ask for help.
- Able to collate evidence, summarise, recognise when objective has been gained
- Knows how and when to conclude, disengage.
- Has realistic expectations of own and of others' performance. Time-conscious, punctual.

Relevance of professional bodies

- Understand 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*.
- Actively engages with professional/representative/specialist bodies.
- Values the breadth and depth of experience that can be accessed by associating with professional colleagues.

SKILLS

- History taking and examination
- Appropriate use of investigations
- Treatment and management of disease
- Disease notification
- Health promotion
- Screening
- Study Day - Disease prevention & health education
- Personal and professional organisation and planning; goal setting, time management

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)
- Study Days
- Annual Audit

Patient Safety

Objective: To ensure patient safety is at the core of the health service provided by designing safe systems and processes of care and understanding the role of healthcare systems and human factors in adverse events and errors.

Medical Council Domains of Good Professional Practice: No. 1 Patient Safety and Quality of Patient Care.

KNOWLEDGE

Safe Systems, Competency and Safe practice

- Understands multiple factors involved in failures;
- Safe Healthcare Systems-a Safe working environment
- The relationship between 'Human factors' and patient safety
 - Safe working practice. Role of procedures and protocols in optimal practice
- Patient safety relevance in health care and its role in minimizing the incidence and impact of adverse events and maximize recovery from them.
- Knowledge and understanding of the Swiss cheese model.
- Health care errors and system failures; human and economic costs; blame culture

Communication

- Disclosure – know the principles of open disclosure
- Knowledge and understanding of valid consent
- Teamwork
- Continuity of care

Near Misses and adverse events

- Knowledge of preventing and managing near misses and adverse events. Incident reporting; root cause analysis. Understanding and learning from errors
- Understands and manages clinical risk
- Manages complaints
- Knows when and how to report a near miss or adverse event

Quality improvement

- Standardises common processes and procedures – checklists, vigilance
- Evidence based care
- Infection control; healthcare associated infections
- Patient safety and invasive procedures.
- Improvement medication safety; safe prescribing; common medication errors
- Ethical behaviour

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
- Understand how and why systems break down and why errors are made
- Be able to learn from errors and near misses to prevent future errors
- Know how to use relevant information from complaints, incident reports, litigation and quality improvement reports to control risks
- Minimise infection through improved infection control practice
- Minimise errors during invasive procedures by developing and adhering to best-practice guidelines for safe surgery.
- Minimise medication errors by practicing safe prescribing principles

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): prioritization of patient safety in practice
- RCPI Patient safety on-line course (recommended)
- Completion of infection control induction in the workplace

Therapeutics and Safe Prescribing

Objective: To progressively develop your 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: No. 1 Patient Safety and Quality of Patient Care.

KNOWLEDGE

- Indications, contraindications, side effects, drug interaction, dosage and route of administration of commonly used drugs
- Knowledge of prescribing for common medical conditions
- Knows range of adverse drug reactions to commonly used drugs, including complementary medicines
- Identifies common prescribing hazards
- Identifies high risk medications
- Knows drugs requiring therapeutic drug monitoring and interprets results
- Knows the effects of age, body size, organ dysfunction and concurrent illness or physiological state e.g. pregnancy on drug distribution and metabolism relevant to the trainees practice
- Recognise the roles of regulatory agencies involved in drug use, monitoring and licensing (e.g. IMB , and hospital formulary committees)
- Knows procedure for monitoring, managing and reporting adverse drug reaction

SKILLS

- Knows how to write a prescription
- Prescribes appropriately in the elderly, childhood, pregnancy and breast feeding
- Make appropriate dose adjustments following therapeutic drug monitoring, or physiological change (e.g. deteriorating renal function)
- Review the continuing need for long term medications relevant to the trainees clinical practice
- Anticipate and avoid defined drug interactions, including complementary medicines
- Advise patients (and carers) about important interactions and adverse drug effects
- Provide comprehensible explanations to the patient, and carers when relevant, for the use of medicines
- Open to advice and input from other health professionals on prescribing
- Participates in adverse drug event reporting

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): prioritization of patient safety in prescribing practice

Infection Control

Objective: To be able to manage and control infection in patients, including controlling the risk of cross –infection, appropriately managing infection in individual patients, and within the wider community to manage the risk posed by communicable diseases.

Medical Council Domains of Good Professional Practice: No. 1 Patient Safety and Quality of Patient Care; No. 5 Management (including Self Management).

KNOWLEDGE

Within a consultation

- Understand the principles of infection control as defined by the HIQA
- How to minimize the risk of cross-infection during a patient encounter by adhering to best practice guidelines available
- Treat and manage infection in the individual patient
- Understand the principles of preventing infection in high risk groups e.g managing antibiotic use to prevent Clostridium difficile) Knowledge and understanding the local antibiotic prescribing policy
- Aware of infections of concern, eg MRSA, C Difficile,
- Understands best practice in isolation precautions
- Knows when and how to notify relevant authorities in the case of infectious disease requiring disclosure

In surgery or during an invasive procedure

- Understands the increased risk of infection in these patients and adheres to guidelines for minimizing infection in such cases
- Knows the guidelines for needle stick injury prevention and management

During an outbreak

- Adheres to guidelines for minimizing infection in the wider community in cases of communicable diseases and seeks expert opinion or guidance from infection control specialists where necessary

SKILLS

- Practices aseptic techniques, hand hygiene
- Follows guidelines for infection control and management
- Prescribes antibiotics according to antibiotic guidelines Encourages all staff, patients and relatives to observe infection control principles
- Communicates effectively with patients regarding treatment and measures recommended to prevent re-infection or spread
- Collaborates with infection control colleagues to manage more complex or uncommon types of infection including those requiring isolation eg transplant cases, immunocompromised host
- In the case of infectious diseases requiring disclosure:
 - Has knowledge of the diseases requiring disclosure and undertakes notification promptly
 - Collaborates with external agencies regarding reporting, investigating and management of notifiable diseases .
 - Able to advise patients on lifestyle change to minimize the risk of re-infection or spread of infection,
 - Enlists / requires patients' involvement in solving their health problems, provides information, education.

- Avails of support provided by voluntary agencies and patient support groups, as well as expert services where appropriate
- Non-judgemental approach to patient's problem:
- Utilises and values 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

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: No.1 Patient Safety and Quality of Patient Care; No. 3 Communication and Interpersonal Skill; No. 4 Collaboration and Teamwork; No. 5 Management (including Self Management); No 6 Scholarship.

KNOWLEDGE

Demonstrating Personal Qualities

- Develops self-awareness and understanding of personal style and its impact on others
- Efficiently and effectively manages 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
- Acts with integrity and honesty with all people at all times

Working with others

- Develops networks to expand knowledge and sphere of influence
- Builds and maintains key relationships. Adapts style to work with different people and different situations
- Encourages contributions from others including patients, carers, members of the multidisciplinary team and the wider community
- Aware of own personal style and other styles and their impact on team performance. Understands the importance of good communication in teams and the role of human factors on effectiveness and patient safety

Managing Services

- Knows and understands the structure and function of Irish Health Care System
- Aware of the challenges of managing in healthcare
 - Role of Governance
 - Clinical Directors
- Can contribute to the planning and design of services
- Knows and understands the financing of the health service
 - Preparing a budget
 - Defining value
 - Managing resources
- Knows and Understands the importance of human factors in service delivery.
 - Manages staff training, development and education
- Managing performance
 - Performs staff appraisal and deals effectively with poor staff performance
 - Rewards and incentivises staff for quality and efficiency

Improving Services

- Ensures patient safety by adopting and incorporating a patient safety culture
- Critically evaluates where services can be improved by measuring performance, and acting to raise standards where possible Encourages a culture of improvement and innovation
- Facilitating transformation by creating and living a vision

Setting Direction

- Identifies the external and internal drivers setting the context for change
- Applies knowledge and evidence of systems and resource management to guide service development
- Makes decisions using evidence based medicine and performance measures
- Evaluates 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 Being able to managing resources and people
- Managing performance, performance indicators
- How to write and develop a service plan
- How to prepare and manage a budget

ASSESSMENT & LEARNING METHODS

- Communication course (Year 1)
- Leadership course (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.

Management Information Systems & Management Skills

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: No. 5 Management.

KNOWLEDGE

Health service structure, management and organisation

- The administrative structure of the Health Service, services provided in Ireland and their funding. Department of Health, HSE and Hospital Management structures and systems. The National Regulatory Bodies, health agencies and patient representative groups.
- Can explore, direct, pursue a project, negotiating through the relevant department at an appropriate level. Able to “*operate the system*”. Understand the need for business plans, annual hospital budgets, the relationship between the hospital and PCCC.
- Recognises the advantage of understanding the administrative machinery of the Health Services.

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. Know of the sources which can provide information relevant to national or to local services, publications available.
- Able 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.

Obtaining information of value in maintaining medical knowledge with a view to delivering effective clinical care

- Understands the contribution that current, accurate knowledge can make to establishing clinical effectiveness, best practice, treatment protocols. Know sources providing updates, literature reviews and digests.
- Able 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*.
- Embraces principles of clinical governance.

Delegation skills, empowerment and conflict management

- How to assess, develop personal effectiveness, improve negotiating, influencing and leadership skills. How to manage time more efficiently, deal with pressure and stress. How to motivate and operate within a multidisciplinary team.
- Able to adjust to change, apply management/leadership, negotiating skills to manage change. Self-awareness, able to recognise strengths and weaknesses.
- Appropriately values and uses management techniques and seeks to improve these skills and personal effectiveness.

Leadership

- How to maintain, improve working relationships within a team; appropriately recognise roles, skills, status. Know when and what to delegate, provide support, appraise.
- Motivates and empowers others, knows when help is needed. Able to foresee, forestall, manage conflict.
- Sensitive to and aware of the needs of others.

SKILLS

- Risk Management
- Leadership skills
- Time management
- Delegation skills
- Conflict management
- Clinical governance
- Audit

ASSESSMENT & LEARNING METHODS

- Communication course (Year 1)
- Audit course (Year 1)
- Leadership course (Year 3 – 5)
- Annual audit
- Consultant feedback at annual assessment on management and leadership skills
- Involvement in hospital committees

Teaching & Research

Objective: To recognise the opportunities for personal/professional development that exist for medical teachers, educational supervisors and from involvement with research.

Medical Council Domains of Good Professional Practice: No. 6 Scholarship.

KNOWLEDGE

Teaching, educational supervision and assessment

- Know principles of adult learning, teaching and learning methods available and strategies; educational principles directing assessment, methods, formative vs. summative. Value of regular appraisal / assessment in informing training process.
- Able to identify educational objective. Able to design and deliver an effective teaching event, both small and large group. Uses technology / materials effectively. Adequate preparation, timekeeping.
- Appreciates benefit to learner is key objective of teaching sessions, key resource is adequate knowledge of subject.

Research, methodology and critical evaluation

- How to design and resource a research project, how to obtain ethical approval. Research methodology, valid statistical analysis, writing and publishing papers. Ethical considerations, declaring an interest.
- Reviewing the literature, framing the question, designing a project capable of providing an answer. Able to derive results and conclusions, able to write or present a paper.
- Intellectually honest.
- Present data in a clear, honest and critical fashion.

SKILLS

- Bed-side undergraduate and post graduate teaching
- Lectures
- Ethics of research
- Presentation and writing skills

Ethics

Objectives: *Medicine is predominantly concerned with the diagnosis and treatment of illness. Besides the pathological processes involved and the physical impact of each condition, the requirements for practising medicine in a fair, competent and ethical manner must be understood before a doctor is ready for independent practice.*

*Upon satisfactory completion of specialist training, the 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 Irish healthcare system.*

Medical Council Domains of Good Professional Practice: No. 1 Patient Safety and Quality of Patient Care; No. 3 Communication and Interpersonal Skill; No. 6 Scholarship; No. 7 Professionalism.

KNOWLEDGE

- Knowledge of 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 informational exchange with individual patients and their families and teamwork with other health professionals, the scientific community and the public.
- Professionalism.

Ethics I: Professionalism

Objectives: *To explore the relationship between ethics of healthcare delivery and professionalism including the challenges and the impact of current developments*

KNOWLEDGE

- Knowledge, skills, attitudes and behaviours expected by patients and society from individuals during the practice of their profession (as a doctor).
 - The skills of lifelong learning and the maintenance of competence
 - Information literacy
 - Ethical behaviour
 - Integrity, honesty
 - Altruism
 - Service to, justice and respect for others
 - Adherence to professional code
- Leadership and Accountability
- Role of the Clinical Director
- Dignity & Respect
- Conflicts of interest
- Personal scope of practice & boundaries
- Adverse Events- open communication when adverse events occur
- Discussing errors

Ethics II: Ethics & Law

Objectives: To explore the relationship between ethics of healthcare and law including the challenges and the impact of current developments

KNOWLEDGE

- Ethical patient care and Irish Law including:
- Informed consent
- Consent and capacity
- Disclosure
- Medical Practitioner's Act
- Malpractice
- Misconduct
- Confidentiality
- Data protection
- Coroner's System
- Medical Council Ethical Guide

Ethics III: Research

Objectives: To explore the ethics of healthcare research including the challenges and the impact of current developments

KNOWLEDGE

- Principles of research
- Un-ethical conduct
- Genetics
- The Importance of Research in Health Care
- Dept of Health and Children Research Action Plan-implications for researchers
- Reasons for Research being Ethically Regulated
- Genetics
- Researching vulnerable groups
- Data Research/Protection and confidentiality
- Patient information bill
- Human Tissue Act
- Role of Research Ethics Committee
- Conflict of interest

Ethics IV: End of Life

Objectives: To explore the ethics of end of life challenges and the impact of current developments

KNOWLEDGE

- Euthanasia/Terminal Sedation
- Artificial nutrition/hydration
- Resuscitation issues
- Advanced Directives
- Organ donation
- Death Certification/Coronial System
- Prolongation
- Futility
- Decision making process

SKILLS

- Recognises the dying patient
- Communicates bad news sensitively
- Explores the options for managing the dying patient including DNR and advanced directives
- To incorporate the above ethical concepts in their everyday practice

ASSESSMENT & LEARNING METHODS

- RCPI Ethics programme: Ethics I, Ethics II, Ethics III and Ethics IV (Mandatory)
- Note of examples of ethical dilemmas encountered in training
- Consultant feedback at annual assessment
- Workplace based assessment e.g CBD
- Educational supervisor's reports on observed performance (in the workplace)

Dealing with and Management of Acutely ill Patients in Appropriate Specialties

Objective: To have the knowledge and skills to be able to assess and initiate management of patients presenting as emergencies with the problems outlined below. For each scenario, trainees should in particular gain knowledge and skills to recognise the critically ill and:

Immediately assess and resuscitate if necessary.

Formulate a differential diagnosis, treat and/or refer as appropriate.

Select relevant investigations and accurately interpret reports.

Communicate the diagnosis and prognosis – see Generic Skills.

Medical Council Domains of Good Professional Practice: No. 1 Patient Safety and Quality of Patient Care, No. 8 Clinical Skills

KNOWLEDGE

Management of acutely ill patients with medical problems

- Know how potentially life-threatening problems present; know the indications for urgent intervention, additional information necessary to support action (*e.g. results of investigations*) and treatment protocols (*see Addendum*).
- Know when to seek help, refer/transfer to another specialty. Know ACLS protocols. Know the ethical and legal principles relevant to resuscitation and DNR orders.
- Able to manage acute medical intake, to receive and refer patients appropriately, to interact efficiently and effectively with other members of the medical team, accept/undertake responsibility appropriately.
- Able 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*.
- Able to convey essential information quickly to relevant personnel: maintains legible up-to-date records documenting results of investigations. Lists of problems dealt with or remaining, identifies areas of uncertainty; ensures safe handover.
- Remains calm, delegates appropriately, ensures good communication. Tries to meet patient's/ relatives' needs and concerns, respecting their views and right to be informed.

Discharge planning

- Distinguish between illness and disease, disability and dependency. Understand the potential impact of illness and impairment on activities of daily living, family relationships, status, independence. Be aware of quality of life issues.
- Know role and skills of other members of the healthcare team, how to devise and deliver a care package. Know the support available from other agencies *e.g. specialist nurses, social workers, community care*. Understand the principles of shared care with the general practitioner service.
- Show awareness of the pressures/dynamics within a family, the economic factors delaying discharge but recognise the limit to benefit derived from in-patient care. Establish liaison with family and community care, primary care, communicate / report to agencies involved.
- Demonstrates can awareness of the wide ranging effects of illness and the need to bridge the gap between hospital and home.

SKILLS

- ACLS
- Deal with common medical emergencies
- Interpretation of blood results, ECG/Rhythm strips, Chest X-Ray, CT Brain
- Give clear instructions to both medical and hospital staff
- Order relevant follow up investigations
- Discharge planning
- Knowledge of patient pathways
- Knowledge of HIPE
- Multidisciplinary team working
- Communication
- Early regular and on-going consultation with family members and primary care physicians

ASSESSMENT & LEARNING METHODS

- Certified ACLS
- Record of on call
- miniCEX (acute setting) - each year
- Case based discussions
- Consultant feedback at annual assessment

SPECIALTY SECTION INFECTIOUS DISEASES

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.

Clinical Competence

Objective: To obtain clinical competence in the assessment, investigation, diagnosis and management of community acquired infection at consultant level.

- Take an appropriate history.
- Perform appropriate physical examination
- Perform appropriate investigator and specific skills including lumbar puncture
- Achieve an appropriate specific or differential diagnosis and initiate appropriate treatment.
- Develop the clinical and administrative skills to develop ID services.
- Competence in the management of cross specialty infections for example TB, hepatitis including B and C.

KNOWLEDGE

History:

- Recognise symptom patterns.
- Relevant, succinct and logical histories even when language, physical or mental impairment pose difficulties.
- Appropriate use of interpreter.
- Consider interaction of psychological and social well being on the physical symptoms to show empathy with the patient.
- 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.
- 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.
- Knowledge of how to access up to date information.
- 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
- Ability to give targeted differential diagnosis
- Ability to organise administrative and clinical services.
- Ability to initiate and co-ordinate an effective consultation service.
- Capacity to work with multidisciplinary team members and colleagues.
- Ability to select appropriate tests.
- Ability to interpret results.
- Ability to perform interventions according to guidelines.
- Establishing close rapport and understanding with laboratory staff.
- Recognising the need of a patient to understand procedures and results of tests.
- Interpersonal skills
- Capacity to impart knowledge

ASSESSMENT & LEARNING METHODS

- miniCEX
- Infectious Diseases Society of America Fellows In-Training Exam
- Attend a minimum of two recognised international ID meetings

Assessment throughout training

Management of the Immunocompromised Patients

Objective: To obtain clinical competence at consultant level in the management of immunocompromised patients including those suffering from HIV/AIDS. Trainees must have the ability to recognise clinical manifestations in the immunocompromised including the ability to evaluate and take appropriate history, perform a physical examination and appropriately investigate an immune compromised patient. Also the ability to reach a specific or differential diagnosis and to 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.
- Awareness and knowledge of patient support groups.
- Biological and iatrogenic aetiology of immunodeficiency.

Specific HIV Positive Patient cohorts

- Pregnancy and conception, co-infection (*HBV, HCV, TB*), non-nationals, injection drug users, end stage disease and palliative care.
- Spectrum of professional and complementary therapies available.
- Palliative medicine, nutrition, pain relief, psychology of dying.
- Discernment in balancing a specific and caring approach to the problem.

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 biological modifiers.
- Communication skills allowing patients to recognise risk activity and its management.
- Ability to recognise clinical and laboratory manifestations of immunodeficiency.
- 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 on the physical symptoms.
- Establishing 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
- Understanding of positive and negative predictive values

ASSESSMENT & LEARNING METHODS

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

Assessment throughout training

Viral Diagnostics

Objective: Trainees must be competent in the use of specific HIV diagnostics.

KNOWLEDGE

- Understanding of currently used diagnostic techniques.
- Appropriate use of diagnostic techniques.
- Knowledge of currently used diagnostic Tests
- Rational use of resources.
- Discernment of patient's desires.

SKILLS

- Interpretation of resistance profiles - Hep B, HIV
- Counselling

ASSESSMENT & LEARNING METHOD

- Infectious Diseases Society of America Fellows In-Training Exam

Assessment throughout training

Antiretroviral Therapy

Objective: *Trainees must have the ability to institute and manage antiretroviral therapy.*

KNOWLEDGE

- Pharmacokinetics and mode of action of available therapy.
- Mechanisms of resistance/cross resistance.
- Knowledge on how to access further information *e.g. on current guidelines etc.*

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

Assessment throughout training

Management of the Hospital Acquired Infection

Objective: To acquire the skills necessary at consultant level to recognise and manage Hospital Acquired Infection, and institute control systems, including postoperative 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.

KNOWLEDGE

- Symptom patterns.
- Pathophysiology and origin of physical signs.
- Common/typical problems.
- Hospital acquired infection.
- Confidentiality and consent issues in the unconscious patient.

SKILLS

- Ability to 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.
- Organised thinking.
- Sensitivity to patients, carers and relative's anxieties.
- Recognition of the need to involve the patient regardless of the level of comprehension or consciousness.
- Policies of medical legal implications
- Awareness of political issues
- Working with management and the public

ASSESSMENT & LEARNING METHOD

- Grand round presentation
- Infectious Diseases Society of America Fellows In-Training Exam

Assessment throughout training

Antimicrobial Stewardship

Colonisation vs. infection, understanding of microbiology laboratory detection, management of multi-drug resistant infections, knowledge of new antimicrobials

***Objective:** To provide the trainee with the knowledge and skills necessary to understand and manage infection and colonization by organisms resistant to antimicrobials.*

KNOWLEDGE

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

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.
- Discernment of situations giving rise to antibiotic resistance.
- Application of knowledge to the clinical situation.
- Consistency in approach to problems.
- Multidisciplinary team working.
- Interpretation of resistance patterns
- Understanding of laboratory data
- Antibiotic Stewardship
- Management and economics of antibiotic prescribing
- Selection and appropriate management of antimicrobial pharmacology and toxicology
- Application of the knowledge in simple and complex clinical settings.

- Collaborative interaction with medical, laboratory and nursing colleagues and understanding of the patient's concerns relating to the use of more toxic agents.
- Flexibility to change the choice of antimicrobial in the context of a change in clinical situation or laboratory data.
- Teaching on appropriate antimicrobial prescribing.
- Ensuring that patient care is optimum.
- Recognition that there is often more than one antimicrobial for a clinical situation, that choices are not usually right or wrong.
- 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.
- Recognition of the common reasons for failure of control of infection principles.
- Ability to apply infection control by explanation, education and application of written policies.
- Ability to lead a multidisciplinary team and explain the necessary actions to control infection to other health care staff including administrative staff.
- Sensitivity to the difficulties of establishing good infection control. Recognition of the importance of clear messages and repetitive messages to health care professionals and patients delivered in a constructive manner.

ASSESSMENT & LEARNING METHODS

- Grand Round presentations
- Audit
- Infectious Diseases Society of America Fellows In-Training Exam

Assessment from year 1

Management of Infection Problems Related to the ICU Including Management of Sepsis Syndrome and DIC

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

KNOWLEDGE

- Common infection problems in the intensive care setting.
- Outcomes of infection in ICU setting.
- Evidence base for infection management.
- Pathophysiology of serious sepsis.
- Likely outcomes.
- Evidence base for outcomes.

SKILLS

- Prompt, relevant and appropriate decision-making.
- Ability to justify course of action.
- Clear communication skills with other carers and relatives.
- Caring and consistent attitude to the seriously ill and dying patient.
- Responsible and appropriate attitude to the withdrawal of care.
- Assessment of situation
- Appropriate Antibiotic use (*see also Antimicrobial Stewardship page 48*)

ASSESSMENT & LEARNING METHOD

- Infectious Diseases Society of America Fellows In-Training Exam

Assessment throughout training

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

- Evidence base for effectiveness of infection control policies.
- Local/national/international clinical standards, guidelines and protocols.

SKILLS

- Ability to use knowledge to formulate appropriate local advice.
- Team working, assertiveness.
- Participation in local infection control committees
- Infection control policies

ASSESSMENT & LEARNING METHOD

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

Assessment throughout training

Infection Control

Objective: *To develop skills required to recognise and manage Hospital Acquired Infections and to institute infection control systems when required.*

KNOWLEDGE

- Knowledge of principles of infection control.
- Knowledge of principles of hospital infection surveillance.
- Awareness of institutional resistance data.
- Understanding of mechanisms in acquiring resistant infections.
- Knowledge of specific risk factors for differing patient cohorts.

SKILLS

- Awareness of need to involve infection control practices.
- Multidisciplinary care of complex patient
- Infection control policies

ASSESSMENT & LEARNING METHOD

- Participation in hospital outbreak control team.
- Attendance and participation in infection control committee meetings.
- Infectious Diseases Society of America Fellows In-Training Exam

Assessment throughout training

Management of Community Acquired Infections

Meningitis/encephalitis, complicated soft tissue infections, bacterial endocarditis, sexually transmitted infections

Objective: *The trainee should be able to diagnose, investigate and manage community acquired infection.*

KNOWLEDGE

- Risk assessment
- Programme development – OPD services, home antibiotic services.
- Awareness of evolving regional antimicrobial resistance data.
- Development of sexual health services.
- Knowledge of Gram stains
- Malaria smear

SKILLS

- Evaluation of patient and risk assessment.
- Awareness of need for the involvement of other infection disciplines *e.g. community outbreaks.*
- Ability to appropriately triage patients for in-patient and out-patient care.
- Ability to identify the need to involve more senior colleagues appropriately.
- Interpret Gram Stains
- Interpret Malaria smear
- Development or expansion of ID programme
- Performance indications of management of infection control

ASSESSMENT & LEARNING METHOD

- Infectious Diseases Society of America Fellows In-Training Exam

Assessment throughout training

Imported Infection and Travel Medicine

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
- Geography of disease and resistance
- Problems of special groups of travellers *e.g. elderly, immunosuppressed.*
- Vaccinology in special patient cohorts
- Hazards of different types of travel.
- Availability, efficacy and safety of vaccines.
- Use and safety of antimalarial prevention measures.
- Principles of organising a travel clinic.

SKILLS

- Risk assessment for the individual traveller.
- Ability to take and record pre-travel medical and travel history.
- Ability to perform risk assessment appropriate to traveller.
- Ability to formulate and communicate appropriate verbal and written advice for traveller.
- Ability to administer immunisations and prescribe antimalarials as necessary.
- Multidisciplinary team working
- Ability to understand organisational and medico-legal aspects of travel clinic.
- Consider interaction of psychological and social well being on the physical symptoms to show empathy with the patient.

ASSESSMENT & LEARNING METHOD

- Infectious Diseases Society of America Fellows In-Training Exam

Assessment throughout training

Imported Infections and Fevers Including Malaria

Objective: *Trainees must have the ability to recognise and treat imported infections, diagnosis and management of imported fevers including malaria and diagnosis and management of other imported diseases.*

KNOWLEDGE

- Clinical and epidemiological features of imported diseases, especially manifestations and differential diagnosis of malaria.
- Knowledge of ability and limitations of specialised diagnostic tests.
- Management of imported infections.

SKILLS

- Elicit and record appropriate travel history.
- Recognise symptoms and signs of imported disease.
- Synthesise epidemiological and clinical data into differential diagnosis.
- Select and interpret appropriate diagnostic tests.
- Ability to manage common imported infections.
- Respect patient dignity, confidentiality and be sensitive to ethnic issues.
- Recognise the relative's rights and responsibilities.
- Recognise the need for interpreter services
- Establishing close rapport and understanding with laboratory staff.
- Recognising the need of a patient to understand procedures and results of tests.
- Consideration of diagnostic issues in relation to fears of patient.
- Flexibility of thinking to review and revise the diagnostic considerations.
- Preparation and interpretation of a malaria smear

ASSESSMENT & LEARNING METHOD

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

Assessment throughout training

Dealing with High Security Risk Infections

Objective: *Trainees must have the ability to identify sources of specialist advice for unusual infections.*

KNOWLEDGE

- Knowledge of location and availability of tertiary care and advice lines.
- Knowledge of printed and electronic information sources.
- Knowledge of High Security Unit Mater
- Knowledge of unusual infections

SKILLS

- Ability to recognise when tertiary level care/advice is needed and to seek it.
- Ability to use printed and electronic information sources.
- Awareness of own limitations and needs for specialist advice.

ASSESSMENT & LEARNING METHOD

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

Assessment throughout training

Infection and Immigrants

Objective: Infection-related problems of immigrants.

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 entrance to the Irish Health Care system

SKILLS

- Ability to work with interpreters and patient support groups.
- Ability to 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.
- Be aware of patient dignity, confidentiality and ethnic issues.
- The need for an interpreter
- Working with different population groups
- Update disease surveillance

ASSESSMENT & LEARNING METHOD

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

Assessment throughout training

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

- Ability to make accurate risk assessment.
- Ability to recognise when urgent epidemiological action is required.
- Ability to 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
- Optional EPT-ET
- 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 ID 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.
- Knowledge of other interventions (*e.g. abscess drainage*) useful in management of infected patients.
- Antibiotic grams
- Understanding of positive cytology results
- Knowledge of new developments in molecular diagnostics

SKILLS

- Ability to perform laboratory tests identifying microorganisms.
- Ability to interpret the findings of microbiological investigations and recognise their limitations.
- Establishing close rapport and understanding with laboratory staff.
- Ability to communicate with colleagues and other doctors in different disciplines and enable them to appreciate the relevance of the data.
- Ability to interpret laboratory data in the context of clinical information.
- Ability to consider data in context of clinical information and when to obtain further clinical data.
- Ability to provide appropriate antibiotic and other management advice at the bedside and over the telephone.
- 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.
- Interpretation of molecular diagnostics

ASSESSMENT & LEARNING METHOD

- 3 months 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

Assessment at year 1 - 2

Management and Health and Safety Procedures

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

Objective: 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.
- Performing laboratory work in a safe manner consistent with local rules and national guidelines.
- Understanding and being sympathetic to the safety concerns of other laboratory staff.

ASSESSMENT & LEARNING METHODS

- Infectious Diseases Society of America Fellows In-Training Exam

Assessment throughout training

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.
- Knowledge and understand of infectious disease epidemiology.
- 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 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

- 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.

Minimum Requirements for Training

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
Section 1 - Training Plan				
Weekly Timetable (Sample Weekly Timetable for Post/Clinical Attachment)	Required	1	Training Post	Form 045
Personal Goals Plan (Copy of agreed Training Plan for your current training year signed by both Trainee & Trainer)	Required	1	Training Post	Form 052
On Call Rota	Required	1	Training Post	Form 064
Section 2 - Training Activities				
Outpatient Clinics (minimum requirements on average 1 clinic per week)				
ID Clinics	Required	10	Year of Training	Form 001
TB Clinics	Required	10	Year of Training	Form 001
STD Clinics	Required	10	Year of Training	Form 001
HIV Clinics	Required	10	Year of Training	Form 001
Ward Rounds/Consultations				
Counsellant Led (minimum 1 per week)	Required	40	Year of Training	Form 002
SpR Led (minimum 1 per week)	Required	40	Year of Training	Form 002
Consultations	Desirable	1	Year of Training	Form 002
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 (10 stains in Microbiology)	Required	10	Training Programme	Form 004
Malaria Smear (5 throughout training)	Required	5	Training Programme	Form 004
Additional/Special Experience Gained				
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)	Required	1	Training Programme	Form 005
Paediatric Infectious Diseases	Desirable	1	Training Programme	Form 005

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
Other: (Hepatitis C, TB, 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/Clinical Virology - period of 3 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 requirements 2 months)	Required	1	Training Programme	Form 018
Virology (1 month in Virology or Molecular Diagnostics)	Required	1	Training Programme	Form 018
Molecular Diagnostics (1 month in Virology or Molecular Diagnostics)	Required	1	Training Programme	Form 018
Relatively Unusual Cases	Desirable	1	Training Programme	Form 019
Chronic Cases/Long term care	Desirable	1	Training Programme	Form 066
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	Desirable	1	Training Programme	Form 110
Section 3 - Educational Activities				
Mandatory Courses				
Mastering Communications (Year 1)	Required	1	Training Programme	Form 006
Audit (Year 1)	Required	1	Training Programme	Form 006
Leadership Skills (Year 3+)	Required	1	Training Programme	Form 006
Ethics I: Professionalism	Required	1	Training Programme	Form 006
Ethics II: Ethics & Law	Required	1	Training Programme	Form 006
Ethics III: Research	Required	1	Training Programme	Form 006
Ethics IV: End of Life	Required	1	Training Programme	Form 006
ACLS	Required	1	Training Programme	Form 006
Non – Mandatory Courses	Desirable	1	Training Programme	Form 007
Study Days (minimum attendance of 6 per year)	Required	6	Year of Training	Form 008
See examples: (Imported Infections, Health and Safety Procedures (Link with Public Health), Joint Day with Microbiology – Plate Rounds etc., Unusual Infections (High Security Unit, Mater Hospital), Epidemiological Control in Public Health, Statistical Analysis/Research Skills, International Infection and Epidemiology Course e.g. SHEA, EPI-ET (optional) International ID Meeting (Board Review Course))				

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
National/International meetings (minimum attend 1 per year)	Required	1	Year of Training	Form 010
In-house activities				
Grand Rounds (minimum 1 per month)	Required	10	Year of Training	Form 011
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	Required	20	Year of Training	Form 011
Pathology Conferences	Required	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	1	Training Programme	Form 012
Formal Teaching Activity (minimum 1 formal teaching session per month from the categories below:)	Required	10	Year of Training	Form 013
Lecture				
Tutorial				
Bed side Teaching				
Research	Desirable	1	Training Programme	Form 014
Audit activities (Start or complete 1 audit per year)	Required	1	Year of Training	Form 015
Publications	Desirable	1	Year of Training	Form 016
Presentations	Required	1	Year of Training	Form 017
Committee Attendance	Desirable	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