



ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

HIGHER SPECIALIST TRAINING IN GASTROENTEROLOGY



The Curriculum of Training in Gastroenterology was developed by Dr.Suzanne Norris, National Specialty Director, Dr. Orla Crosbie National Specialty Director, and Dr. Ann O' Shaughnessy, Head of Education and Professional Development and reviewed by the Gastroenterology Specialty Training Committee. The curriculum was approved by the Irish Committee of Higher Medical Training Executive.

Version	Date published	Last edited by	Version comments
Agreed numbering convention	Date approved by EPD for circulation	Name of administrator to make changes	Brief overview of changes made e.g. section edited, content added/edited/deleted
<i>1.0</i>			

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Introduction

A trainee in Gastroenterology must have expertise in the management and diagnosis of disease of the gastrointestinal tract, liver and pancreas and be competent in the diagnosis, and treatment of intra abdominal malignancy. Proficiency in diagnostic and therapeutic upper and lower endoscopy is also essential.

Higher Specialist Training in Gastroenterology is divided into **Core and Option modules**. The core module lasts two and a half years and includes twelve months of General (Internal) Medicine/Gastroenterology, including an adequate period spent on unselected emergency medical call. The remaining 18 months will be spent in optional modules - each module usually lasting three to six months. Those trainees requiring dual accreditation will spend 30 months in Core options and 30 months in Option modules.

During training for basic proficiency it is envisaged that trainees may develop subspecialty expertise which would include pancreatico-biliary disease, ERCP and advanced hepatology.

Trainees will be required to develop skills in both diagnostic and therapeutic endoscopy. These endoscopic procedures within the core training programme will include oesophago-gastro-duodenoscopy, full colonoscopy and rigid sigmoidoscopy. Therapeutic skills would include oesophageal stricture dilatation, injection or banding of varices, the insertion of gastrostomy feeding tubes and colonoscopic polypectomy. **The minimum numbers of procedures recommended for adequate training are outlined in the appendix.**

Aims

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

Competencies, at a level consistent with practice in the specialty of Gastroenterology 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 Gastroenterology.
- 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 Gastroenterology must have completed a **minimum** of two years Basic Specialist Training (BST) in approved posts and obtained the MRCP or (UK).

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 an MRCP or MCFUK must provide evidence of equivalent qualification

Duration & Organisation of Training

The duration of HST in Gastroenterology 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 Gastroenterology and in *General Internal Medicine* will require at least a fifth year of training.

HST will provide experience in both teaching hospitals or other major centres with academic activity, and regional hospitals. The posts within the programme to which the trainee is appointed will have named consultant trainers. In addition, one consultant will act as a Programme Director who will co-ordinate the training and report to the National Specialty Director for Gastroenterology, appointed by the ICHMT. **It is mandatory that trainees should not spend more than 2 years in clinical training in any one institution.**

Essential Training: Trainees must attend study days as advised by the National Speciality Director.

The Conjoint Board of the Royal College of Physicians of Ireland (RCPI) and the Royal College of Surgeons in Ireland (RCSI) oversee training in Endoscopy in Ireland for SpRs who are registered on a RCPI or RCSI Higher Specialist Training (HST) programme.

Trainees are expected to complete their endoscopic training within a 5 year period while registered on a HST programme. Accreditation will be awarded at two levels: General and Specialist level.

Procedure requirements for General Training:

The following requirements must be met for General level of training:

- Upper gastrointestinal endoscopy:
 - perform at least 200 unassisted and completed examinations independently under supervision.
 - a minimum of 20 therapeutic procedures excluding polypectomy; of these 10 must involve control of upper gastrointestinal haemorrhage.
 - DOPS assessments annually at 1 month, 6 months and at end of year. Additional DOPS assessments may be required at the discretion of the trainer
- Colonoscopy:
 - perform a minimum of 200 unassisted, supervised, complete colonoscopies to the caecum in patients with intact colons (i.e. no previous colonic resection)

- perform snare polypectomies in a minimum of 30 patients.
- achieve at least a 90% caecal intubation rate by the completion of training

For further details see the Endoscopy module in the Speciality section of the curriculum.

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 Gastroenterology 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 Gastroenterology (e.g. hepatology, ERCP etc.), 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 and fulfil all the requirements of the curriculum of training for Gastroenterology 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 Gastroenterology 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 Gastroenterology 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.

“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 confirm these competencies during Higher Specialist Training.

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 Gastroenterology 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 logbook 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 Gastroenterology 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.

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 logbook 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 Gastroenterology 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 Gastroenterology 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, DOPS and Case Based Discussion. 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, CBDs and DOPS 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*); following observation and appraisal of the performance of a procedure (*DOPS*); and after discussion of the (*clinical*) reasoning involved in the management of a problem faced by a trainee (*Case-Based Discussion, CBD*).

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

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.

DOPS:

Definition: Directly Observed Procedural Skills (DOPS) is a method, similar to the mini-CEX that has been designed specifically for the assessment of practical skills. DOPS assess the capabilities of a trainee while they perform a procedure.

Description: The DOPS is a structured assessment of actual performance. Each DOPS should represent a different procedure. The trainee chooses the timing, procedure and observer.

Frequency of Assessments: The number and frequency of assessments of procedural skills will vary from specialty to specialty.

Competencies assessed:

- Understanding of Procedure:
 - Relevant anatomy; purpose, indications, contra-indications; outcomes, risks, complications; choice of methods available, technique of procedure.
- Consideration for the Patient:
 - Gives reassurance, minimises discomfort, explains procedure fully; confirms informed consent obtained.
- Preparation:
 - First re-checks all relevant details correct. Safety check; instrumentation, equipment (drugs); positioning; cleansing/aseptic technique; sedation, analgesia, anaesthesia confirmed.
- Professional/technical ability:
 - Dexterity, accuracy, efficiency; obtains, interprets diagnostic material/information; informs, directs staff courteously; recognises own limitations; seeks help where appropriate; manages risk.
- Post-Procedure:
 - Completes documentation; regulates recovery phase, observations; anticipates/deals with complications. Informs/counsels patient/relatives.
- Overall ability to perform Procedure:
 - Ability to complete/undertake procedure; technical abilities as demonstrated; appropriately confident, team/ leadership skills.

Opportunities for assessment: While supervising, assisting, observing actual performance in appropriate setting (office, theatre, day procedure, ICU etc.). The assessment should be made under appropriate conditions e.g. with all equipment and personnel necessary to support the procedure.

Case Based Discussion (CBD)

Definition: Case-based discussion (CBD) is used to enable the documenting of conversations about, and presentations of, cases by trainees. This activity happens throughout training, but is rarely conducted in a way that provides systematic assessment and structured feedback. CBD is used to evaluate core skills that can be demonstrated during an interactive discussion based on a single case in which the trainee has been actively involved.

Description: CBD is designed to assess clinical decision-making and the application or use of medical knowledge in relation to patient care for which the trainee has been directly responsible. It also enables the discussion of the ethical and legal framework of practice, and in all instances, it allows trainees to discuss why they acted as they did. Although the primary purpose is not to assess medical record keeping, as the actual record is the focus for the discussion, the assessor can also evaluate the record keeping in that instance. The case for discussion can either be selected by the trainee or chosen by the assessor. The assessment

will be based on oral discussion and written information available. It includes a bi-lateral (trainee's and trainer's) critical appraisal of the reasoning and judgements made, and of the management of the case. Whenever possible the assessment should include issues such as disease notification, health promotion and screening.

Frequency of Assessment: This method of assessment has not been validated as yet, however it is a very useful method and can be easily incorporated into journal clubs, post-graduate teaching sessions or on-line etc

Competencies assessed:

- **Problem Definition:**
 - All relevant facts established, from current/previous history, investigations, interventions; reports, correspondence reviewed.
- **Record Keeping:**
 - Legible, tidy, legally defensible records seen.
- **Reasoning:**
 - Appropriately selected, sequenced investigations/procedures planned. Evidence-based, logical judgements made; (differential) diagnosis established; action plan made with realistic goals.
- **Case Management:**
 - Effective, safe (responsible) prescribing; aware of protocols/guidelines, best practice; monitoring progress, handling complications/mistakes; timely, appropriate referrals, case closure.
- **Reflective Practice:**
 - Shows analytical, constructive approach to case, willingness to learn; acknowledges and prepared to consider other management options; aware of change, possible advances, when to seek help.

Opportunities for assessment: The presentation should take place in a suitable environment, with due consideration given to the patient's sensitivities, to confidentiality e.g. in any ward or clinical setting; an office, side- or seminar-room may be found convenient. Case presentations and discussions, e.g. at handover, ward-rounds (inter-) departmental meeting.

Mandatory Training Courses:

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

Mandatory Communication course:

To be completed in Year 1. 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.

Leadership Skills:

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

ACLS:

ACLS compliant in appropriate specialties'

Specialty Study Days:

Trainees must attend 6 study days per year, 2 of which can be international or the local ISG meeting. These sturdy days are listed in the requirements.

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/ co-ordinate 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.
- Employs 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 an 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 for
Gastroenterology**

Upper GI Tract

Objective: To be capable of evaluating the significance of symptoms referable to the upper GI tract and providing effective management of patients

Dysphagia, Reflux And Non Cardiac Chest Pain

Objective: To be capable of assessing the significance of symptoms such as dysphagia and retrosternal pain, and arranging appropriate investigations with a view to providing effective management.

KNOWLEDGE

- Physiology of swallowing and reflux; benign and malignant causes and presentation of dysphagia and its management.
- Physiology of oesophagus and gastro-oesophageal junction; gastro-oesophageal reflux disease including symptoms (e.g. heartburn) and endoscopic finding;
- Management of Barrett's oesophagus.
- Diagnosis and treatment of non-cardiac chest pain.

SKILLS

- Elicit history, investigate appropriately and define medical endoscopic, radiological and surgical treatment strategies.
- Recognise symptom complex, arrange appropriate investigations including Ph monitoring, motility studies and endoscopy and interpret findings.

ASSESSMENT & LEARNING METHODS

- miniCEX
- Case based discussion

Assessment at Year 1

Upper Abdominal Pain/Dyspepsia

Objective: To be able to assess the significance of symptoms of upper abdominal pain and dyspepsia and arrange for appropriate investigation, with a view to providing effective management.

KNOWLEDGE

Peptic ulcer and non-ulcer dyspepsia:

- Physiology of gastric acid secretion;
- Role of Helicobacter pylori and its detection and treatment.
- Effect of aspirin non-steroidal anti-inflammatory drugs and drugs which inhibit gastric acid production and stimulate mucosal protection.
- Can describe physiology of motor disorders of upper GI Tract including achalasia and diffuse oesophageal spasm.
- Demonstrates willingness to manage dyspeptic patients appropriately

Gall bladder disease:

- Physiology of bile, gallstone formation, biliary colic and gall bladder neoplasia.
- Demonstrates willingness to investigate, treat and refer to surgeons/radiologists as appropriate.

Pancreatic disease:

- Physiology of pancreatic function, recognition of pancreatic pain and/or insufficiency.
- Recognises and demonstrates willingness to assess and fully investigate symptoms of pancreatic disease, pancreatic function and structure and to refer appropriately.

SKILLS

- Be able to identify appropriate investigations, make differential diagnosis, identify success of treatment and recognise complications such as gastric outlet obstruction, perforation and bleeding.
- Be able to diagnose and treat dysmotility type symptoms.
- Be able to recognise gall bladder symptoms and signs, investigate appropriately and instigate medical or surgical treatment.
- Approved investigation of pancreatic structure and function, institute medical/surgical management.

ASSESSMENT & LEARNING METHODS

- minCEX
- Case based discussions

Assessment at Year 1

Nausea and Vomiting

Objective: *To be able to assess the significance of symptoms such as dyspepsia, nausea and vomiting in relation to disease of the GI tract, to investigate them appropriately and to manage patient's with these symptoms effectively and safely.*

KNOWLEDGE

- Non-organic causes of upper GI symptoms and their management.
- Nausea, vomiting occurring in GI diseases.
- Metabolic and neurological causes of nausea and vomiting as a manifestation of systemic disease.
- Demonstrates a willingness to manage upper gastrointestinal symptoms appropriately.

SKILLS

- Diagnose and manage upper gastrointestinal symptoms
- Be able to diagnose functional disorders and initiate symptomatic treatment.
- Be able to apply the wide differential diagnosis applicable to these symptoms

ASSESSMENT & LEARNING METHODS

- minCEX
- Case presentations
- Case based discussions

Assessment at year 1

Gastric and Oesophageal Cancers

Objective: *To be competent to recognize presenting features of upper GI cancers and to obtain evidence to confirm the diagnosis: to advise and initiate treatment which is appropriate to the patient's needs.*

KNOWLEDGE

- Pathology (*types*) pathogenesis, clinical, radiological features, complications, medical and surgical options, palliative care, prognosis.
- Communication with patients and their relatives and with colleagues e.g. in breaking bad news, in a multidisciplinary approach.
- Appreciate potential value of contributions from colleagues and other health professionals.
- Acknowledge patients' right to be involved in decisions.

SKILLS

- Assess, investigate and stage upper GI cancers and make appropriate decisions regarding treatment modalities

ASSESSMENT & LEARNING METHODS

- Case presentations
- Case Based discussions

Assessment at year 1

Upper Gastrointestinal Bleeding

Objective: To be competent to determine the cause and deal with the effects of acute and chronic bleeding from sources in the upper GI tract such as hiatus hernia, peptic ulcer, varices, tumours and vascular abnormalities.

KNOWLEDGE

Assessment and management of patients with upper GI bleeding

- Knowledge of risk factors for death, pathophysiology of shock and its measurement, resuscitation.
- Pathophysiology of arterial bleeding in PUD, endoscopic and radiological diagnosis of PUD, endoscopic and surgical elements treatments for PUD
- Anatomy and physiology of varices, risk factors for bleeding including size, portal pressure and endoscopic stigmata, coagulation abnormalities.
- Clinical features of vascular anomalies and tumours and risks of bleeding.
- Demonstrates willingness to recognise severity of condition and take prompt action as necessary.
- Demonstrates willingness to recommend prompt endoscopic action and liaise with surgical colleagues as necessary.
- Demonstrates willingness to participate in management of variceal haemorrhage and liaise with a specialist liver unit for TIPS or other measures when necessary.
- Demonstrates willingness to participate in endoscopic management.

SKILLS

- Diagnose and manage upper gastrointestinal bleeding
- Recognise, assess and manage shocked patients adequately.
- Recommend urgent endoscopy for diagnosis and treatment of bleeding peptic ulcer.
- Recommend use of endoscopic therapy when necessary and administer prophylactic treatments and vasoconstrictor agents as necessary for bleeding varices.
- *Undertake endoscopic diagnosis and recommend treatment with thermal or other methods as appropriate for bleeding from vascular anomalies.

ASSESSMENT & LEARNING METHODS

- miniCEX
- Case Based Discussions

Assessment at Year 1 - 2; Year 3 - 4*

Clinical and Laboratory Tests of GI Structure and Function

Objective: To be competent in the selection, application and correct interpretation of tests of GI structure and their function which are appropriate to the patient's needs.

KNOWLEDGE

Oesophageal, gastric & anorectal function:

- Knowledge of oesophageal pH monitoring, oesophageal and anorectal motility/manometry, gastric emptying studies.
- Be able to recommend use in suitable patients: able to explain and obtain informed consent.
- Demonstrates willingness to use tests when necessary and appropriate: and to respond to patient's rights to be fully informed.

Gastric secretion:

- Can discuss 24-hour intragastric H⁺ concentration, maximal acid output, effect of pentagastrin and gastrin releasing peptide.
- Be able to recognise value for drug testing and research and evaluate results.
- Appreciates the need to fully inform patients concerning procedure and obtain consent.

Tests for malabsorption:

- Can describe SeHCAT, PABA, lactose tolerance test, H₂ breath test, faecal elastase.
- Be able to recommend use of and interpret results of tests.
- Willing to discuss procedure and value of results with patients.

Tests for inflammation

- Can describe serological and nuclear medicine testing including Tc WBC scans.
- Be able to make appropriate use of as indicated
- Willing to discuss procedure and value of results with patients.

Radiological evaluation

- Can interpret plain x-rays of abdomen, barium studies of GI tract CT, MRI and ultrasound, endoscopic ultrasound (EUS),
- Demonstrates competency in ordering ultrasounds, viewing the images and aiding the interpretation with radiologists
- Be able to recommend use of tests and interpret results.
- Demonstrates willingness to explain the procedure, any risks and the results with the patient.
- Respects patient's right to fully understand purpose and outcome.

Histopathological evaluation

- Has knowledge of the histological features of common gastroenterology and liver diseases
- Can appreciate the histological findings in discussion with histopathologists

SKILLS

- Recommend and Interpretation of GI tests
- Informed consent

ASSESSMENT & LEARNING METHODS

- minCEX
- Study day (Held every 2nd year)

Assessment at year 1

Absorption and Nutrition

Objective: To understand the anatomy and physiology of digestion and intestinal absorption, and the pathological processes that may interfere. To be competent to recognise, assess and manage the underlying cause, and of providing an appropriate response to the patient's needs.

Malabsorption, Anorexia and Weight Loss

Objective: To be able to recognise the potential significance of steatorrhoea and other features of malabsorption, anorexia and weight loss; to investigate the cause and to plan management which is appropriate.

KNOWLEDGE

Steatorrhoea:

- Can define the physiology of absorption and pathophysiology of malabsorption.
- Understand causes including parasites, coeliac disease, bacterial overgrowth, Crohn's disease, chronic pancreatitis and neoplasia.
- Be able to recognise symptom patterns, investigate with barium studies, EUS and endoscopy, microbiological and biochemical tests, and give appropriate treatment.
- Demonstrates willingness to recognise and treat small intestinal, pancreatic and other disorders and understand patients' needs.

Anorexia and weight loss

- Differential diagnosis including GI and non-GI causes; knowledge of eating disorders.
- Be able to arrange investigation, recognise organic from non-organic causes, and plan treatment accordingly.
- Demonstrates willingness to explain potential causes and management with patient.

SKILLS

- Diagnose and manage patients with malabsorption, anorexia and weight loss

ASSESSMENT & LEARNING METHODS

- miniCEX,
- Case Based Discussion

Assessment at year 1

Short Bowel Syndrome and Ileostomy

Objective: *To understand the fluid, electrolyte and metabolic consequences and to be capable of providing appropriate supporting measures.*

KNOWLEDGE

- Can explain fluid and electrolyte balance and its maintenance, can identify malnutrition and micronutrient deficiency, causes of short bowel syndrome, can discuss role of stomatherapy.
- Be able to detect fluid and electrolyte deficiency, investigate malnutrition appropriately, and plan treatment
- Demonstrates willingness to manage and refer patients appropriately.

SKILLS

- Knowledge of short bowel syndrome and ileostomy
- Performance of ileostomy

ASSESSMENT & LEARNING METHODS

- Clinical presentations
- Case Based Discussions
- DOPS –see endoscopy curriculum
- Year 3 - 4: Performance of ileostomy

Assessment at year 1

Evaluation of Anaemia

Objective: To recognise different types of anaemia, understand their pathogenesis and be capable of determining the cause and arranging treatment.

KNOWLEDGE

Anaemias, diagnosis and management

- Definition and types including bone marrow disorders and haemolysis.
- For iron deficiency anaemia, demonstrate knowledge of iron metabolism, absorption and bioavailability, iron stores, red cell indices, iron absorption, physiological and GI causes of iron losses.
- For macrocytic anaemia, demonstrate knowledge of B12 and folate metabolism, absorption or malabsorption, pernicious anaemia, ileal disorders, alcoholism.
- Demonstrates willingness to investigate and treat anaemia associated GI disease appropriately.

SKILLS

- Diagnosis and management of anaemia
- Be able to recognise anaemia and possible causes.
- Be able to recognise iron deficiency, plan appropriate GI investigations, and give necessary treatment.
- Be able to recognise causes of macrocytic anaemia, confirm by investigation and take necessary action.

ASSESSMENT & LEARNING METHODS

- minCEX,
- Clinical presentations
- Case Based Discussion

Assessment at year 1

Nutritional Support

Objective: To understand energy homeostasis, under nutrition and be capable of determining nutritional status, applying that knowledge and appropriate skills to providing additional nutritional support, when that is in the patients' best interests.

KNOWLEDGE

Nutritional assessment and support:

- Can describe body composition, energy homeostasis, consequences of under nutrition, screening.
- Can evaluate the type of food available and routes of administration, use of intravenous nutrition and its complications, enteral feeding nasogastric and jejunal administration.
- Demonstrates willingness to assess nutritional needs and involve nutritional support team.

PEG:

- Can identify and describe ethics and indications; anatomy of relevant area, types of PEG tubes, disadvantages and complications.
- Be able to recommend and insert PEG feeding when appropriate and supervise follow up care.
- Demonstrates willingness to consider PEG support in appropriate cases and listen to relatives' fears and expectations.

Obesity:

- Can describe the risks of obesity, and evaluate the measurement tools.
- Is aware of the dietary, pharmacological, surgical methods of treatment and can refer to obesity service when appropriate.

SKILLS

- Assess nutritional status
- Be able to detect under nutrition and apply knowledge to individual patients.
- Be able to choose appropriate route for nutritional support, insert appropriate feeding lines, supervise their use and prescribe appropriate i.v. and enteral feeding regime.
- Recommend and insert PEG feeding
- Recognises obesity as an illness and will treat patient in sympathetic manner

ASSESSMENT & LEARNING METHODS

- Mandatory Nutrition Course
- DOPS: Insertion of PEG

Assessment at year 2

Abdominal Pain

Objective: To be able to differentiate the various causes of acute, recurrent and chronic abdominal pains; to arrange and interpret investigations appropriately and interpret the results and to recommend treatment.

KNOWLEDGE

Acute and chronic abdominal pain

- Pathophysiology of organ specific causes including biliary colic, hollow viscus obstruction, pancreatitis and non-GI causes (renal colic).
- Pathophysiology of Crohn's disease, diverticulitis; intra abdominal neoplasia and pancreatitis (acute and chronic).
- Knowledge of analgesics (administration and safety), medical and surgical nerve blocks.
- Be able to investigate abdominal pain appropriately, construct differential diagnosis.
- Demonstrates willingness to understand physical and mental responses to pain and its causes.
- Demonstrates willingness to treat and refer to surgeons, psychiatrists, pain clinics and palliative care teams as necessary.
- Demonstrate ability to confidently diagnose functional abdominal disorders and pain using criteria such as the Rome or Manning criteria and to avoid over investigation,
- Demonstrate ability to explore successfully the emotional and psychological backgrounds of patients with functional bowel disorders and to liaise with and/or refer to psychiatrists as necessary.

SKILLS

- Investigate and manage abdominal pain
- Be able to elicit and interpret abdominal signs including an acute abdominal, order investigations correctly and recommend medical or surgical treatment.
- Be able to treat abdominal pain appropriately for individual patients with different disease processes.

ASSESSMENT & LEARNING METHODS

- minCEX
- Clinical presentations,
- Case Based Discussions

Assessment at year 1

Constipation, Diarrhoea or Change in Bowel Habit

Objective: To recognise symptoms of colonic dysfunction and be able to differentiate between the potential causes using appropriate examinations and investigations, in order to arrange or recommend treatment.

KNOWLEDGE

Constipation and diarrhoea

- Knowledge of physiology and motility of normal colon.
- Knowledge of the role of dietary fibre in influencing colonic function and motility.
- Causes of obstructed defecation; Hirschsprung's.
- Identifies infective diarrhoea (viral, bacterial and protozoal) from secretory and osmotic diarrhoea (inflammatory bowel disease, neoplasia).
- Knowledge of presentation and appropriate investigation of intestinal ischaemia, neoplastic and infiltrative disorders.
- Medical and surgical options for treatment of ulcerative and Crohn's colitis, use of and safety issues of antimicrobials, anti diarrhoeals, immune modulators and biological therapies.
- Demonstrates willingness to investigate and counsel as appropriate.
- Demonstrates willingness to appreciate discomfort associated with diarrhoea and incontinence and take sympathetic action.
- Demonstrates willingness to consult with surgical colleagues when necessary.

Change in bowel habit:

- Can discuss functional disorders of colon, spurious diarrhoea, autonomic disorders, laxative abuse, diverticulosis and malignancy.
- Ability to order and interpret investigations and give appropriate specific or symptomatic treatment including use of antispasmodics, dietary fibre and constipating agents.
- Demonstrates sympathy and willingness to treat as appropriate.

SKILLS

- Investigate when necessary and advise on use of diet, laxatives and biofeedback as necessary.
- Investigate with blood tests, stool examination, endoscopy and radiology as appropriate.
- Assess severity of disease, take necessary action and liaise with surgical colleagues.

ASSESSMENT & LEARNING METHODS

- minCEX
- Clinical presentations
- Case Based Discussion
- DOPS – colonoscopic competency (see endoscopic curriculum)

Assessment at year 1-2

Rectal Bleeding and Perianal Fistulae

Objective: To appreciate the importance of rectal bleeding as a symptom and to be capable of carrying out necessary examinations and arranging investigations and treatment which is appropriate.

KNOWLEDGE

Rectal bleeding:

- Can discuss causes - haemorrhoids; neoplasia of anus and recto-sigmoid colon, colitis and Crohn's disease of rectum.
- Be able to investigate symptoms appropriately, construct differential diagnosis.
- Demonstrates willingness to undertake appropriate investigations and treatment. Appreciates patient's concerns.

Perianal fistulae:

- Causes of benign fistulae and fistulae complicated by perianal sepsis and IBD.
- Demonstrates willingness to investigate, treat, and refer to surgeons as appropriate.

SKILLS

- Manage rectal bleeding: be able to examine patients with rectal bleeding, rigid sigmoidoscopy, colonoscopy and undertake appropriate action.
- Manage perianal fistula: be able to investigate including use of MRI, give medical treatment and liaise with surgical colleagues when necessary.
- Multidisciplinary team working

ASSESSMENT & LEARNING METHODS

- Clinical presentations
- Case based Discussion.
- DOPS – colonoscopic competency (see endoscopic curriculum)

Assessment at year 1-2

Colorectal Cancer

Objective: *To be competent to recognize presenting features of lower GI cancers and to obtain evidence to confirm the diagnosis: to advise and initiate treatment which is appropriate to the patient's needs.*

KNOWLEDGE

- Pathology (*types*) pathogenesis, clinical, radiological features, complications, medical and surgical options, palliative care, prognosis.
- Communication with patients and their relatives and with colleagues e.g. in breaking bad news, in a multidisciplinary approach.
- Appreciate potential value of contributions from colleagues and other health professionals.
- Acknowledge patients' right to be involved in decisions.

SKILLS

- Assess, investigate and stage lower GI cancers and make appropriate decisions regarding treatment modalities.
- Multidisciplinary team working

ASSESSMENT & LEARNING METHODS

- Case presentations
- Case Based Discussion

Assessment at year 1

Liver

Objective: To understand the pathophysiology of hepatic dysfunction, its investigation, assessment, differential diagnosis, likely cause and contributing factors (see also subspecialty training in Hepatology)

Assessment of Liver Function

Objective: To understand and be able to recognise the manifestations of hepatic dysfunction and the range of disease processes which may be responsible. To know the range of investigations available and be able to advise of the selection and interpretation of appropriate tests. To understand the place of liver biopsy in the management of patients with liver dysfunction, to know the indications, contra-indications and risks, and the techniques available.

KNOWLEDGE

Pathophysiology and investigation of liver dysfunction:

- Knowledge of bilirubin metabolism, hepatic and biliary inflammatory processes, hepatic blood flow.
- Knowledge of biochemical, haematological, viral, autoimmune and metabolic markers of liver disease, and ability to select appropriate markers.
- Indications for liver biopsy, abdominal ultrasound, CT, ERCP, MRI/ERCP/EUS.
- Demonstrates willingness to use appropriate tests in correct circumstances.

Liver biopsy:

- Knowledge of technique, types of needle, pre and post procedure care, complications.
- Be able to recommend ultrasound guidance or transjugular approach as necessary, recognise complications.
- Demonstrates willingness to undertake procedure or refer to radiologist for ultrasound guidance or transjugular biopsy as appropriate.

SKILLS

- Recognise the range of disease processes possible.
- Select and interpret appropriate markers.
- Select and interpret appropriate tests as required.
- Recommend and obtain informed consent for ultrasound guidance liver biopsy

ASSESSMENT & LEARNING METHODS

- Clinical presentations
- Case Based Discussion

Assessment at year 1-2

Jaundice

Objective: To understand the production of bile, the structure and function of the biliary system; diseases of the biliary tract. The significance of jaundice, its causes and investigation. To be able to advise on the management of a patient with jaundice and recommend treatment.

KNOWLEDGE

Jaundice - structure and function of the biliary system:

- Knowledge of anatomy and physiology of the biliary system.
- Can describe the physiology of bile production.
- Causes of extra and intrahepatic biliary obstruction and their clinical manifestations.
- Differential diagnosis of jaundice (non-obstructive) including hepatitis, alcoholic liver disease, biliary obstruction, chronic liver disease (e.g. AIH, PBC, PSC).
- Medical, surgical and radiological treatment of jaundiced patients.
- Knowledge of indications and complications of ERCP.
- Demonstrates willingness to recognise the development of various causes of jaundice and take appropriate action.

SKILLS

- Recognise biliary obstruction and its complications.
- Make use of and interpret investigations of jaundiced patients including ultrasound, CT, MRI, ERCP and liver biopsy and initiate appropriate treatment.
- Select the most appropriate treatment for individual patients.

ASSESSMENT & LEARNING METHODS

- Clinical presentations
- Case based discussion,

Assessment at year 1-2

Hepatosplenomegaly

Objective: To be able to determine the cause of an hepatosplenomegaly and to recommend appropriate management or refer for other specialist opinion.

KNOWLEDGE

Hepatosplenomegaly

- Knowledge of causes of hepatosplenomegaly due to systemic disease.
- Knowledge of causes of cirrhosis – chronic viral hepatitis, AIH, PBC, PSC, alcohol liver disease, NASH, haemochromatosis, alpha1 antitrypsin deficiency and Wilson's disease, and vascular disorders, and select therapeutic options where available.
- Knowledge of complications of cirrhosis and ability to order and interpret appropriate investigations for complications of cirrhosis.
- Knowledge of complications of drug therapies associated with treatment of cirrhosis.
- Demonstrates willingness to diagnose and treat liver disease.

SKILLS

- Diagnosis of cirrhosis and hepatosplenomegaly due to systemic disease.
- Make use of and interpret investigations of jaundiced patients including ultrasound, CT, MRI, ERCP and liver biopsy and initiate appropriate treatment.
- Select the most appropriate treatment for individual patients.
- Recognise need for referral to specialist liver unit for consideration for liver transplantation.

ASSESSMENT & LEARNING METHODS

- Clinical presentations
- Case Based Discussion

Assessment at year 1

Ascites and Other Abdominal Swellings

Objective: To be able to determine the cause of an abdominal swelling and to recommend appropriate management or refer for other specialist opinion.

KNOWLEDGE

Ascites

- Pathophysiology of portal hypertension.
- Differential diagnosis of ascites (hepatic and non-hepatic).
- Knowledge of management of spontaneous bacterial peritonitis with diuretics, antibiotics, and albumin as necessary.
- Knowledge of appropriate use of paracentesis, complications of procedure.
- Knowledge of indications for and complications of TIPS.
- Demonstrates willingness to consult with and refer to a specialist unit as appropriate.

Abdominal masses including cysts

- Causes of hepatic and extrahepatic masses, knowledge of benign and malignant liver tumours.
- Make use of and interpret investigations including ultrasound, CT, MRI, ERCP and liver biopsy.
- Knowledge of treatment modalities for liver cancer.
- Demonstrates willingness to investigate or to refer to surgeons as appropriate.
- Be aware of patient's anxiety regarding potential outcome of investigation.

SKILLS

- Give a differential diagnosis and safely manage ascites.
- Recognise abdominal masses and initiate appropriate investigations.
- Recognise need for referral to specialist liver unit for consideration for liver transplantation.

ASSESSMENT & LEARNING METHODS

- Clinical presentations
- Case Based Discussion
- DOPS: Paracentesis .

Assessment at year 1-2

Liver Failure and Encephalopathy

Objective: To understand the pathogenesis of the features of acute and chronic liver failure, and the occurrence of hepatic encephalopathy. To be able to separate encephalopathy from other confusional states in patients with liver disease and to arrange to provide treatment which is appropriate.

KNOWLEDGE

Hepatic encephalopathy

- Knowledge of pathophysiology, clinical features, stage and precipitants of hepatic encephalopathy in liver disease.
- Recognise, investigate and treat alcohol withdrawal syndromes and other causes of confusion.
- Demonstrates willingness to recognise and treat hepatic encephalopathy.

Liver failure

- Causes and manifestations of acute and chronic hepatic failure.
- Demonstrates willingness to consult and refer to specialist liver unit as appropriate.

SKILLS

- Recognise, investigate and treat hepatic encephalopathy, alcohol withdrawal syndromes and other causes of confusion.
- Recognise progression to hepatic failure and need for referral to specialist liver unit for consideration for liver transplantation.

ASSESSMENT & LEARNING METHODS

- Clinical presentations
- Case based discussion

Assessment at year 1-2

Sub-Specialty Training in Hepatology (Advanced Liver Sub-Specialty Training Option)

Objective: To develop more detailed knowledge and advanced skills in the diagnosis and management of the diseases of the liver and biliary system. Such advanced training will be available only in specialist Liver Units.

KNOWLEDGE

Anti viral therapy

- Criteria for treatment and efficacy of antiviral therapy for Hepatitis B & C.
- Ability to administer and monitor complications of antiviral therapy.
- Demonstrates willingness to participate in the diagnosis and management of advanced liver disease.

Acute hepatic failure

- Causes and manifestations of acute hepatic failure and its complications including cerebral oedema and hepatorenal syndrome.
- Awareness of progression of liver failure and need for liver transplantation.
- Demonstrate a willingness to liaise appropriately with specialist liver unit.

Benign and malignant tumours of the hepatobiliary system

- Hepatic adenoma, hepatoma and cholangiocarcinoma and medical, surgical and radiological management.
- Ability to advise use of screening, and different therapeutic treatment modalities including immunotherapies and biologic therapies.

Liver transplantation

- Selection of patients and timing of transplantation. Management of peri- and post-operative complications including rejection and infection.
- Knowledge of immunosuppression therapy, complications and drug interactions.
- Knowledge of long-term complications of liver transplantation.
- Appreciate patients and family anxiety pertaining to liver transplantation.
- Demonstrate willingness to liaise with specialty transplant units.

SKILLS

- Administer and monitor antiviral therapy for hepatitis B & C with appropriate investigations as necessary.
- Recognise progression of acute hepatic failure and the need for liver transplantation.
- Advise use of and follow up of TIPS or surgery in patients with portal hypertension.
- Advise use of screening and the different therapeutic strategies for individual patients.
- Explain complex diagnosis in simple terms to patient.
- Enrol multidisciplinary team in investigation and treatment.
- Liver transplantation module:
 - Appropriately select patients for liver transplantation.
 - Be able to manage complications of transplantation.
 - Be able to manage immunosuppressive therapy.

Assessment at SpR year 3 - 5

Endoscopy Training Module

Introduction

The Conjoint Board of the Royal College of Physicians of Ireland (RCPI) and the Royal College of Surgeons in Ireland (RCSI) oversee training in Endoscopy in Ireland for SpRs who are registered on a RCPI or RCSI Higher Specialist Training (HST) programme.

Outline of Training in Endoscopy for SpRs

Trainees are expected to complete their endoscopic training within a 5 year period while registered on a HST programme. Accreditation will be awarded at two levels: General and Specialist level.

1. Entry to Programme

Trainees who are registered on a RCPI or RCSI HST programme are eligible for endoscopy training. The training bodies will notify the Conjoint Board of the trainees who are undertaking endoscopy training at their commencement of HST. The Conjoint Board must be aware at all times of who is in training.

2. Curriculum

The endoscopy curriculum is divided into the following sections:

General : This is a mandatory section for all trainees and will accredit trainees for upper gastrointestinal endoscopy and colonoscopy.

Specialised: Trainees who elect to progress to specialist level should have successfully completed General training. Specialist level training requires dedicated training in additional specific procedures (e.g. ERCP, EUS, EMR, GERD therapy, advanced polypectomy, colonic stricture dilation, SEMS insertion in the colon etc).

Trainees are expected to demonstrate cognitive and interpretative skills combined with a clear understanding of the role of endoscopy in patient management. These skills are considered to be as important as technical skills.

3. Requirements for Training

Training in individual training units must include:

- training in radiological and pathological findings as well as the technical aspects of endoscopy
- training in sedation practices pertaining to endoscopy procedures based on standard guidelines
- an understanding of the principles of and practice of cleaning and disinfection of modern endoscopic instruments
- familiarisation with the commonly used drugs for sedation and experience of airway support
- participate in simulator course on entry to the programme
- participate in Basic Endoscopy Course in year one
- participate in Hands-on Colonoscopy course in year 2.

Procedure requirements for General Training:

The following requirements must be met for General level of training:

- Upper gastrointestinal endoscopy:
 - perform at least 200 unassisted and completed examinations independently under supervision.
 - a minimum of 20 therapeutic procedures excluding polypectomy; of these 10 must involve control of upper gastrointestinal haemorrhage.
 - DOPS assessments annually at 1 month, 6 months and at end of year. Additional DOPS assessments may be required at the discretion of the trainer
- Colonoscopy:

- perform a minimum of 200 unassisted, supervised, complete colonoscopies to the caecum in patients with intact colons (i.e. no previous colonic resection)
- perform snare polypectomies in a minimum of 30 patients.
- achieve at least a 90% caecal intubation rate by the completion of training

Trainees must complete at least the minimum number of unassisted and supervised procedures; it is understood that most trainees will require more procedures than the minimum required to achieve proficiency and satisfy all criteria.

Summative DOPS for each procedure will be required prior to certification. These should be carried out under an external examiner.

4. Logbooks

Details of all cases attempted from the commencement of training to the completion of training, including those not successfully completed, must be recorded prospectively and sequentially in the logbooks provided. In each case the indication for endoscopy, sedation used and any complications must be recorded. Logbook entries must be acknowledged by the supervisor on the day of the procedure.

5. Requirements for training units

Each training unit should have a named lead trainer who may not individually supervise each trainee but whose responsibilities include:

1. Oversee training in endoscopy within that unit
2. Ensure trainees proceed through their curriculum and record supervision and assessment at appropriate times
3. Ensure trainees receive adequate exposure for training.

Each trainee will be answerable to the lead trainer.

6. Requirements for Trainers

Requirements for Lead Trainer:

- have a specific interest in diagnostic/therapeutic endoscopy
- Upper GI endoscopy: have personal performance data in line with national standards
 - Lifetime endoscopy number >200
 - Lifetime serious complications <0.5%
 - Mean sedation rates under 70yrs /70+ Midazolam <5mg / <2.5mg
 - Retroflexion in stomach >95%
 - D2 intubation > 95%
- Colonoscopy: have personal performance data in line with national standards
 - Caecal intubation rates on an intention-to-intubate basis ≥90%
 - Mean sedation levels in the under and over-70's (≤5mg midazolam and ≤50mg pethidine in <70 yrs; (≤2.5mg midazolam and ≤25mg pethidine in ≥70 yrs)
 - Polyp detection and removal rate of ≥10%
- have performed 100 gastroscopies, + 100 colonoscopies within last 12 months
- be able to personally audit trainee's performance data in line with curriculum.
- be recognised by the conjoint committee

Requirements for Trainer:

- personally supervise the trainee's training
- acknowledge the procedures logged by the trainee
- assess competence after the trainee has independently completed the minimum number of procedures required. It is expected that most trainees will require more than the stated minimum number of procedures
- Attest that the trainee is:
 - Competent to perform the specific procedure and /or specific therapy safely and expeditiously
 - Able to competently integrate indications for endoscopy and endoscopic findings and therapy into patient management
 - Able to understand risk factors, recognise and manage complications and
 - Able to recognise personal and procedural limits

7. Certificate of Training:

A certificate of training in endoscopy will be recommended to the training body by the Conjoint Board to trainees who fulfil the requirements for training and have performed summative DOPS at General or Specialist level.

Trainees may apply for recognition of training after a minimum of two years training, but a certificate will not be awarded until completion of specialist training. The CSCST will not be altered to accommodate the Endoscopy module. A separated certificate for the module will be issued by the Conjoint Board.

Endoscopy Curriculum

The Curriculum is divided into the following sections:

General: This section is mandatory for all trainees.

Specialist : Trainees who elect to progress to specialist level should have successfully completed General training. Advanced level training includes the following additional procedures: endoscopic management of achalasia, oesophageal dilatation and SEMS insertion in the upper GI tract ERCP, EUS, EMR, GERD therapy and Advanced Polypectomy as well as technique of colonic stricture dilatation and SEMS insertion in the colon.

INTRODUCTION

Gastrointestinal trainees both physicians and surgeons (hereafter referred to as “trainees”) must learn to investigate and manage a variety of benign and malignant GI disease. The ability to order, perform and interpret GI endoscopy is an integral part of the practice of a gastroenterologist or general surgeon and so dedicated training in GI endoscopy is an inherent component of the teaching of a GI trainee.

The trainee should be technically proficient, understand the indications and contraindications, limitations and complications of the procedure and select patients accordingly. They should have the ability to interpret results and manage the patient. They should be able to manage a safe and efficient endoscopy unit and provide a quality endoscopy service. Trainees should recognize that endoscopic procedures are integral aspects of clinical problem solving and not isolated technical activities. Trainees should understand that endoscopic decision making , technical proficiency and patient management are interdependent.

The purpose of this curriculum is to set out the competencies that a trainee must acquire and demonstrate in order to be considered trained in endoscopy. The Curriculum is divided into the following sections:

General : Mandatory training

Specialist level: Trainees who elect to progress to Specialist level should have successfully completed General training. Advanced level training includes the following additional procedures: endoscopic management of achalasia, oesophageal dilatation and SEMS insertion in the upper GI tract, ERCP, EUS, EMR, GERD therapy and Advanced Polypectomy as well as technique of colonic stricture dilatation and SEMS insertion in the colon

Following satisfactory completion of a training programme and after satisfying approved methods of assessment the trainee should be able to:

- Assess and refer patients appropriately for GI endoscopy
- Ensure that informed consent is obtained from the patient prior to endoscopy or to ensure that appropriate steps are taken if the patient cannot give informed consent
- Ensure patient safety is maintained during preparation for the procedure, throughout the procedure and in the period following the procedure
- Demonstrate an understanding of scope reprocessing and accessory handling
- Demonstrate an understanding of the issues involved in running an endoscopic service
- Provide safe and effective conscious sedation where appropriate for endoscopic procedures
- Perform diagnostic and therapeutic endoscopic procedures within the limit of their technical ability but to accepted national and international standards and norms.

Specifically the trainee will be expected to diagnose benign and malignant disease found at GI endoscopy and directing appropriate management. Furthermore the trainee will be expected to manage upper and lower GI bleeding and GI polyps.

- Collect appropriate specimens and provide direction on their handling
- Provide reports and review results of endoscopic procedures
- Demonstrate multidisciplinary working in their provision of an endoscopy service by appropriate liaison with colleagues in primary care, radiology, pathology, surgery, other medical specialties and professionals allied to medicine as necessary
- Participate in personal and institutional audit of endoscopic practice and outcome.
- Demonstrate an awareness of the importance of maintaining their endoscopic skills and safely learning new ones by means such as reflective practice, attendance at teaching courses, attendance with colleagues who are accomplished practitioners and teachers of the procedure in question and periods of self directed learning or supervised remedial action where their skills are suboptimal
- (*Optional*) Perform diagnostic and therapeutic EUS, ERCP, capsule endoscopy and enteroscopy where they have elected to train in those procedures.

This curriculum document will be divided into two broad domains, generic skills and specific skills. In practice the trainee will have to show proficiency in both these areas as in practice the competent endoscopist must be able to explain the procedure, its risks benefits and alternatives and must then be able to safely complete the procedure to therapeutic intent.

Generic Skills in Gastrointestinal Endoscopy

COMMUNICATION WITH PATIENTS/ FAMILY

The trainee must be able to explain the procedure to the patient in a way that helps the patient to understand what will be done, why, what the alternatives are and the risks and benefits of various options. The trainee must be satisfied that the patient has considered and retained the information and made a decision based on that understanding. The trainee must demonstrate that (s)he understands that consent is a continuous process and must react appropriately if consent is withdrawn at any stage before or during the procedure. The trainee must know how to proceed in the patients' best interest where the patient is incapable of giving consent either due to mental incapacity or the urgency of a life threatening situation. The trainee must demonstrate understanding of how and when it is appropriate to delegate some or all of the consent process. (*See generic sections in HST curriculum*).

LIAISON WITH COLLEAGUES

The trainee must demonstrate understanding of and competence in interaction with other healthcare professionals such as endoscopy or ward nurses, surgeons, radiologists, general practitioners and referring colleagues. This includes communication of appropriate selection of patients for endoscopy or recommendation of the appropriate alternative investigation, appropriate preparation of the patient, effective liaison with nursing and other staff to ensure satisfactory scheduling and running of endoscopy lists and effective communication of results and the management plan to the referring personnel. The trainee must demonstrate appropriate confidential medical record keeping and ensure that their log book of procedures is kept safe.

SCOPE REPROCESSING, HANDLING OF ACCESSORIES

The trainee must know how to handle an endoscope and what is involved in the safe washing and decontamination of the scope and where relevant the accessories. The trainee must demonstrate understanding of safety issues regarding maintenance of washing machines, disinfectants, regular water testing and scope traceability. The trainee must describe knowledge of how to respond to a break down in infection control measures in the use or washing of scopes, the accessories or injectable material in the endoscopy unit.

SEDATION AND PATIENT SAFETY

The trainee must show understanding of the process of conscious sedation, knowledge of the drugs involved and their potential adverse effects. The trainee must demonstrate safe and effective use of conscious sedation, analgesia and cardio-respiratory monitoring of the patient during the procedure. The trainee must have skills in basic life support and airway protection.

MANAGEMENT OF A UNIT, WAITING LIST, SCHEDULING

The trainee must demonstrate an understanding of the issues involved in staffing an endoscopy unit, maintaining a waiting list, scheduling patients, appropriate handling of repeat procedures, patients who Do Not Attend and situations where patients or entire lists must be cancelled.

SPECIFIC SKILLS IN GASTROINTESTINAL ENDOSCOPY

The specific endoscopic procedures that will be covered are:

- OGD including diagnostic and therapeutic as well as PEG, PEG(J) and NJ tube insertion
- Colonoscopy, both diagnostic and therapeutic including rigid and flexible sigmoidoscopy as well as diagnostic proctoscopy.
- ERCP (*Not all trainees will train in this procedure*).
- EUS (*Not all trainees will train in this procedure*).
- Capsule endoscopy (*Not all trainees will train in this procedure*).
- Enteroscopy including push and double balloon (*Not all trainees will train in this procedure*)

The trainee must have an understanding of the indications for these procedures and the ability to undertake the appropriate therapeutic options. Each trainee should be adequately trained such that by the completion of the training programme(s) he is competent to independently perform diagnostic and therapeutic OGD and colonoscopy.

General Training

Upper Gastrointestinal Endoscopy/OGD

Objectives: *The trainee should be able to discuss and demonstrate the following:*

- *Indications and contraindications for the procedure*
- *Appropriate patient selection*
- *The ability to obtain informed consent for these procedures*
- *Recognition of the anatomic landmarks of the normal oesophagus, stomach and duodenum.*
- *Interpretation of endoscopic findings*
- *Integration of findings or therapy into the patient management plan*
- *Diagnosis and management of endoscopic complications*
- *Recognise personal and procedural limits and know when to request help*
- *Equipment necessary and available for upper endoscopy*
- *Proper maintenance and cleaning and preparation of equipment*

Specific attention should be focused on understanding and learning the following skills:

- *Safe and effective completion of diagnostic OGD to therapeutic intent in more than 90% of cases*
- *The application and interpretation of non-invasive patient monitoring devices*
- *The appropriate use of conscious sedation and analgesia*
- *Technique and indications for hot and cold biopsies*
- *Proper use of snare cautery*
- *Retrieval of foreign bodies*
- *Use of cytology brushes and needles*
- *Appropriate use of cautery/heater probes*
- *Options for laser or other ablation of oesophageal tumors*
- *Indications for and placement of overtubes*
- *Diagnosis and medical and/or endoscopic management of acute upper gastrointestinal haemorrhage including oesophageal varices with sclerotherapy or band ligation (see detailed therapeutic OGD section)*
- *Diagnosis and management of polyps*
- *Indications for and insertion of PEGs (see detailed therapeutic OGD section)*

KNOWLEDGE

The following disease processes should be familiar to the trainee, and their appearance demonstrated when feasible during OGD. The trainee should be able to identify and discuss the implications and treatment of the following:

OESOPHAGUS

- Oesophageal diverticula
- Hiatus hernia
- Barrett's oesophagus
- Schatzki's rings
- Webs
- Peptic oesophagitis
- Infectious oesophagitis
- Eosinophilic oesophagitis
- Oesophageal varices
- Radiation changes
- Strictures
- Oesophageal carcinoma
- Oesophageal motility disorders

- Oesophageal foreign bodies
- Oesophageal perforations
- Tracheoesophageal fistula

STOMACH

- hiatus hernia
- anatomic variants and postoperative anatomy
- gastritis
- infections
- ulcers
- gastric carcinoma
- arteriovenous malformations
- gastric varices
- portal hypertensive gastropathy
- Gastric Crohns
- polyps

DUODENUM

- ulcers
- diverticula
- macroscopic evidence of villous atrophy
- benign duodenal lesions
- inflammatory bowel disease
- malignant duodenal lesions

Therapeutic OGD

Upper Gastrointestinal Bleeding

Objectives: *The trainee should be well informed regarding the diagnosis and management of upper gastrointestinal bleeding. This includes knowledge about resuscitation of the patient, endoscopic management as well as appropriate surgical treatment when other interventions have failed.*

KNOWLEDGE

The following aspects of the diagnosis and management of upper gastrointestinal bleeding should be practiced and demonstrated:

- Appropriate resuscitative and monitoring measures
- Indications and preparation for upper endoscopy
- Identification of bleeding sites and treatment options available
- Morbidity and mortality associated with endoscopy
- Management of bleeding ulcers in the era of H. pylori, antiplatelet agents, NSAIDs and their alternatives
- Management of active bleeding, visible vessels, adherent clot
- Use of the GI bleeding morbidity and mortality scores that are widely available eg Rockall, Forrest
- Use of Senstaken Blakemore tube, band ligation, sclerosant, electrocautery, heater probe, endoscopic clips, Argon Plasma Coagulation in the management of bleeding
- Knowledge of the complications of procedures
- Recognition of the failure of endoscopic treatment to control upper GI bleeding and appropriate knowledge of the alternatives
- Appropriate and timely involvement of GI surgeon and radiologist

Percutaneous Endoscopic Gastrostomy And Jejunostomy

Objective: The trainees should be familiar with the topics listed below.

KNOWLEDGE

- Indications for performing enteral access, including neurologic, nutritional, mechanical, and oncologic reasons.
- Appropriate candidates for PEG and PEG/J based on medical condition, nutritional status, anatomic situation, aetiology of inability to maintain adequate oral intake
- Patient preparation, including correct selection, informed consent, preoperative antibiotics, other tests as needed
- Techniques of PEG placement and knowledge of the role of radiologic placement techniques
- Techniques of percutaneous jejunostomy, including primary placement and conversion of a PEG to PEJ
- Techniques of nasojejunal tube placement and indications for use
- The use and types of buttons available, their indications, maintenance, and technique of changing them
- Complications possible from PEG or PEJ, their diagnosis and management (including aspiration, perforation, inadvertent early removal, gastric wall and body wall necrosis, and leakage at the site).

Lower Gastrointestinal Endoscopy

Objective: To become experienced and competent in sigmoidoscopy (rigid and flexible) and colonoscopy. Trainees should be able to discuss and demonstrate diagnostic sigmoidoscopy and colonoscopy, to manage lower gastrointestinal bleeding, polyps, and clips.

KNOWLEDGE

To demonstrate:

- Understanding of the indications and contraindications for these procedures and how to perform them to an acceptable standard
- The ability to obtain informed consent for these procedures and how to deal with consent withdrawal at all stages including during the procedure,
- Selection of the most appropriate bowel preparation
- Competence in patient selection and management of medical issues during preparation and performance of the lower GI endoscopy eg management of diabetes, anticoagulation, patients in need of antibiotic prophylaxis
- Knowledge of the benefits and limitations of the alternatives to colonoscopy, the therapeutic options available as part of lower GI endoscopy, and the role of colonoscopy and other screening modalities in bowel cancer screening.
- Knowledge of the quality measures used to assess colonoscopic competence,
- Knowledge of sedative and analgesic options for lower GI endoscopy,
- Competence in using a variety of means of assessing, dyeing, tattooing and removing and retrieving polyps,
- Competence in the recognition of malignant transformation in polyps and recognition of polyps that can not or should not be removed endoscopically,
- Competence in the recognition of early and late complications of colonoscopy and or polypectomy and the appropriate investigation and management of colonoscopy complications
- Diagnosis and management of acute and chronic lower gastrointestinal haemorrhage

Working knowledge of Instrumentation and equipment

- Scopes:
- Anoscopes
- Sigmoidoscopes (rigid and flexible)
- Colonoscopes
- Cleaning and disinfecting scopes
- Accessories
- Biopsy forceps (hot and cold)
- Snares
- Cautery and heater probes
- Cytology brushes and needles
- Dye, dye spray catheters, tattooing
- Lasers and Argon Plasma Coagulation
- Endoscopic clips
- Retrieval baskets and nets

Diagnostic Endoscopic Techniques:

- Independently perform flexible and rigid sigmoidoscopic
- Knowledge of the limitations of such examinations.
- Independently performing colonoscopy including the identification of landmarks including:
 - Anal verge
 - Rectosigmoid junction
 - Splenic and hepatic flexure
 - Appendix orifice
 - Ileocaecal valve and the ileum

- Recognition and correct of loops
- Technique of torque steering
- Use of change of patient position, external compression and the inspection of folds and suctioning of pools to clear the view on adequate withdrawal.

Therapeutic Techniques

KNOWLEDGE

Biopsy and Brushing

- Performing colonoscopic biopsy and brushing
- Working knowledge of appropriate specimen handling

Polypectomy Independently perform polypectomy upon completion of training.

- Explain the risks and benefits of polypectomy to patients.
- Capable of identifying polyps as flat, sessile, pedunculated.
- Knowledge of the features that indicate hyperplastic polyps versus adenomas and polyps with high risk of containing malignancy.
- Appropriately use dye spray or tattooing in polyp marking and visualisation.
- Set up the electrocautery unit and identify and correct common technical failures.
- Select and perform the appropriate form of polypectomy according to the polyp size, location and form.
- Select and manipulate the appropriate range of endoscopic accessories to complete the polypectomy and specimen retrieval.
- Understand the polypectomy options including cold biopsy, cold snare, hot snare, endomucosal resection, piecemeal removal, appropriate use of clips, injections and loops prior to or during polypectomy.
- Recognition of large polyps or those difficult to access or requiring special manoeuvres to remove and referring these for advanced polypectomy, surgery, or other treatment where necessary.

Treatment of lower GI bleeding

- Demonstrate competence in the diagnosis and management of lower GI bleeding including the use of endoscopic haemostasis.
- Use of injection of vasoconstrictors, banding, clipping and placement of loops.

Colonoscopic Decompression of Pseudo-Obstruction and Volvulus

- Independently perform colonoscopic decompression of these conditions

Colonoscopic control of lower gastrointestinal bleeding

- Correctly identify patients who are bleeding from the lower GI tract
- Be familiar with resuscitation of the patient and triage to the appropriate investigation pathway i.e colonoscopy, (CT)angiography, radionuclide scanning

The following disease processes should be familiar to the trainee, and their appearance demonstrated when feasible during sigmoidoscopy and colonoscopy. The trainee should be able to identify and demonstrate the treatment of the following:

Colonic polyps

- False or suction polyps
- Epithelial polyps
 - Adenomatous polyps
 - Tubular
 - Tubulovillous
 - Villous
 - Adenoma-carcinoma sequence
 - Appropriate polyp follow up, advise on family screening and need for other GI or non GI surveillance
 - Hyperplastic
 - Inflammatory

- Juvenile
- The polyposis syndromes
- Submucosal lesions
- Endometrial implants

Colonic Malignancies

- Adenocarcinoma
 - Appearances
 - Biopsy and cytology
 - Synchronous adenomas and cancers
 - Surveillance
 - Family screening
 - Role of genetic studies
- Non adenocarcinoma malignancy of the bowel
- Direct extension of non GI malignancy eg
- Metastases to the bowel

Inflammatory Disease

- Ulcerative colitis
 - Appearance and grading
 - Cancer surveillance
 - Dysplasia
- Crohn's disease
 - Appearance
 - Features distinguishing from U.C.
 - Cancer surveillance
- Viral
- Bacterial and amoebic colitis
- Antibiotic associated colitis
- Ischemic colitis
- Radiation colitis/proctitis
- Rare lesions
 - Tuberculosis
 - Behcet's disease
 - Schistosomiasis
 - Worms
- Drug induced

Colonic Strictures

- Aetiologies
 - Diverticular
 - Malignant
 - Inflammatory bowel disease
 - Ischaemic
 - Radiation
 - Post operative
 - Infective

Colonic Bleeding

- Aetiologies
 - Neoplastic
 - Adenomas
 - Malignant strictures
 - Leiomyomas/sarcomas
 - Inflammatory bowel disease
 - Ischemic colitis

- Radiation colitis
- Diverticular disease
- Vascular
 - Angiodysplasia
 - Hemorrhoids
 - Colonic varices
 - Hereditary hemorrhagic telangiectasias
 - Cavernous hemangioma

Treatment

- Role of colonoscopy
- Electrocautery
 - Monopolar
 - Bipolar
- Heater probe
- Injection
- Argon beam
- Laser
- Vasopressin

Specialist Training in Endoscopy

Specialist Level

Objective: Trainees should be competent in the following:

- Endoscopic Management of Achlasia
- Upper GI Dilation and Insertion of self expanding metal stents
- Endoscopic Retrograde Cholangiopancreatography ERCP (including sphincterotomy, lithotripsy, stent placement, etc),
- Endoscopic Ultrasound (EUS),
- Endoscopic Mucosal Resection (EMR),
- Endoscopic Gastro-oesophageal Reflux Disease (GERD) therapy
- Advanced Polypectomy
- Colonic stricture dilatation and SEMS insertion in the colon
- PEG tube insertion to anchor sigmoid volvulus

Endoscopic Management of Achlasia

Objective: Trainees should be familiar with the endoscopic appearance of achlasia and evaluate this in conjunction with manometric and radiologic tests

KNOWLEDGE

- Knowledge of the endoscopic appearance of achlasia
- Evaluate in conjunction with manometric and radiologic tests
- Evaluate (and explain to the patient) the risks and benefits of the treatment options including:
 - Medical therapy
 - Injection of Botulinum toxin
 - Balloon dilatation and operative myotomy
 - Endoscopic injection technique of Botulinum toxin
 - Balloon dilatation (eg Rigiflex) for treatment of achlasia.

Upper GI Dilatation and/or Insertion of Self Expanding Metal Stents

Objective: To be able to describe the different dilators that exist and the stricture situations in which they may be used.

KNOWLEDGE

- Describe the different dilators that exist and the stricture situations in which they may be used.
- Evaluate (and explain to the patient) the risks and benefits of treatment options for
 - Benign oesophageal strictures including
 - Dilatation using Through The Scope (TTS) balloons
 - Graded dilators (Savary Guillard)
 - Injection of anti-fibrotic agents for benign strictures
 - Insertion of removable stents.
- Technical skills of dilatation using:
 - Through The Scope (TTS) balloons
 - Graded dilators (Savary Guillard)
 - Injection of anti-fibrotic agents for benign strictures
 - Insertion of removable stents for benign oesophageal strictures.
- Evaluate (and explain to the patient) the risks and benefits of the treatment options for Malignant oesophageal strictures including chemo/radiotherapy, surgery, dilatation using Through The Scope (TTS) balloons, graded dilators (Savary Guillard), injection of alcohol, laser therapy and insertion of SEMS.
- Technical skills of dilatation using Through The Scope (TTS) balloons, graded dilators (Savary Guillard), injection of alcohol and insertion of SEMS for malignant oesophageal strictures.
- Evaluate (and explain to the patient) the risks and benefits of the treatment options for gastric outlet obstruction which include surgery, dilatation using Through The Scope (TTS) balloons and insertion of SEMS.
- Stenting of gastric outlet obstruction.
 - Technical skills of dilatation using Through The Scope (TTS) balloons and insertion of SEMS.

Diagnostic And Therapeutic ERCP

Objective: *To be competent to perform ERCP and carry out related diagnostic and necessary therapeutic procedures safely and effectively. To be able to evaluate and explain the outcomes and provide advice regarding further management.*

KNOWLEDGE

To demonstrate:

- Understanding of the indications and contraindications for ERCP and how to perform them to an acceptable standard,
- The ability to obtain informed consent for ERCP and how to deal with consent withdrawal at all stages including during the procedure,
- Competence in patient selection and management of medical issues during preparation and performance of ERCP eg , patients in need of antibiotic prophylaxis
- Knowledge of the benefits and limitations of the alternatives to ERCP, including MRCP, PTC and EUS,
- Knowledge of the quality measures used to assess competence,
- Knowledge of sedative and analgesic options for ERCP,
- Competence passing the duodenoscope and ability to identify the ampulla – trainees should aim for a success rate of >95% in those patients without previous gastric surgery,
- Be able to undertake procedure and cannulate pancreatic and bile ducts in 90% of procedures,
- Be able to undertake sphincterotomy and stent insertion in 90% of procedures,
- Ability to recognise and read specific radiological images such as CT pancreas, PTC and MRCP.
- Demonstrate knowledge of management of patients with percutaneous biliary drains in-situ, and the differences between internal/external and external trans-hepatic drains and the potential complications with each,
- Demonstrate knowledge of the various methods of stone extraction – balloon trawl, use of basket and mechanical lithotripsy,
- Competency in tissue sampling such as biliary brushings and bile aspiration,
- Competence in the recognition of early and late complications of ERCP and sphincterotomy.
- Demonstrates willingness to undertake ERCP in such a way as to minimise risk and discomfort to patient and obtain help when needed.

Working knowledge of Instrumentation and equipment

- Scopes:
- Cleaning and disinfecting scopes
- Accessories
- Biopsy forceps (hot and cold)
- Snares
- Cautery and heater probes
- Cytology brushes and needles
- Lasers and Argon Plasma Coagulation
- Endoscopic clips
- Retrieval baskets and nets

Endoscopic Ultrasound

Objective: *To be competent to perform EUS and carry out related diagnostic and necessary therapeutic procedures safely and effectively. To be able to evaluate and explain the outcomes and provide advice regarding further management.*

KNOWLEDGE

To demonstrate competency in the following areas:

General (non-oncological disease)

- For competency in evaluating mucosal tumour the trainee should perform at least 75 supervised examinations (at least 2/3 upper GI tract; ASGE standards of practice)
- The EUS trainee should perform between 75 to 150 supervised pancreatico-biliary examinations prior to achieving reasonable competence (ASGE standards of practice);
- Training should be in a unit undertaking regular EUS examinations of at least 200 procedures per year;
- Regular participation in a multidisciplinary team (MDT) where results of EUS and other staging investigations are discussed is recommended

Understand the technical aspects of endoscopic ultrasound

- Basics of mechanical & linear echo scanning;
- Different types of machines employed (advantages & disadvantages);
- Appreciate the setting-up, deployment, washing and sterilization processes;
- Identify the features of dedicated echoendoscopes, catheter probes, and EUS accessories.

Understand the technical aspects of performing the examination

- Sedation process;
- Instrument placement and precautions employed;
- Risks of EUS (both at simple diagnostic and during fine-needle aspiration biopsy);
- Specific risks in relation to GI strictures;
- Tissue sampling techniques and risks (EUS-guided fine needle aspiration with microbiopsy [EUS-FNAB]);

GI Oncology

General

- Understand the TNM classifications of oesophageal, gastric, pancreatic, biliary and colorectal cancers;
- Appreciate the advantages and limitations of tumour classification/staging using EUS;
- Appreciate the hierarchy of EUS compared to other morphological examinations in tumour staging process (depending on the tumour origin);

Understand the indications of EUS in tumour staging for:

- a. Oesophageal & gastric cancers
 - i. Appreciate the different forms of uT1 tumours;
 - ii. Role of EUS-FNAB in complete staging of oesophageal and gastric carcinomas;
 - iii. Appreciated EUS in staging of MALT and high-grade gastric lymphomas;
 - iv. Evaluation of large gastric folds
- b. Submucosal tumours of upper GI tract (oesophageal, gastric & duodenal)
 - i. Have a solid knowledge base differential for GI submucosal tumours;
 - ii. Be capable of distinguishing benign from malignant or potentially tumours (e.g., GISTs);
 - iii. Understand the indications and performance of EUS-FNAB for submucosal tumours of the GIT
- c. Pancreatic cancer/solid pancreatic tumours (lesions)
 - i. Know how to broadly perform a pancreatic EUS and in addition a cancer staging procedure;
 - ii. Understand all the contraindications of surgical resection for pancreatic cancer;
 - iii. Appreciate the use of EUS compared to other examinations in both staging and the palliative process;
 - iv. Understand the role performance of tissue diagnosis using EUS-FNAB;
 - v. Appreciate the varieties of “pseudotumours” encountered;
- d. Cystic Pancreatic Tumours
 - i. Know and appreciate the general forms of benign and malignant or potentially malignant cystic pancreatic tumours;
 - ii. Define the role of EUS and cyst fluid analysis in diagnosing cystic pancreatic lesions;
 - iii. Appreciate the role of EUS in guiding surgery (especially limited pancreatic resections);
- e. Biliary/ampullary/gallbladder tumours
 - i. Know the procedure involved in scanning the entire extra-hepatic biliary tree;
 - ii. Appreciate the limitations of staging proximally-located cholangiocarcinomas;
 - iii. Understand the staging of ampullary lesions and how EUS guides ultimate therapy;
- f. Rectal cancer
- g. Place the role of EUS in the context of rectal cancer staging as compared with CT and MRI scanning;

Benign biliary pathology

- A. Appreciate the current role of EUS as compared to US, CT and MRCP for:
 - a. Diagnosing gallstones;
 - b. Choledocholithiasis;
 - c. Appreciating a biliary cause for acute pancreatitis;

- B. Understand the role of EUS in exploring the biliary tract in patients:
 - a. Pre- and post cholecystectomy;
 - b. Suspicion of sphincter of Oddi dysfunction;
 - c. Asymptomatic CBD dilatation;
 - d. Abnormal LFTs

Benign pancreatic disorders

- A. Define the value of EUS in diagnosing
 - a. Chronic pancreatitis (compare early to established), including autoimmune pancreatitis;
 - b. Appreciating the complications of chronic pancreatitis;
 - c. Therapeutic procedure for cyst drainage;

Lung cancer staging

- B. Appreciate the role EUS with EUS-FNAB has in staging patients with lung cancer (and it's place compared to eBUS);

Therapeutic EUS

Recognize the technical aspects and role of interventional EUS procedures including:

- Stone retrieval;
- Cyst drainage;
- Pseudocyst drainage;
- Coeliac plexus block and neurolysis;
- Guiding EMR

Capsule Endoscopy

Objective: *To be competent to perform EUS and carry out related diagnostic and necessary therapeutic procedures safely and effectively. To be able to evaluate and explain the outcomes and provide advice regarding further management.*

KNOWLEDGE

To demonstrate:

- Knowledge of the indications for the procedure, contraindications to the procedure and side effects of the procedure;
- Knowledge of the common pathologies encountered at Capsule endoscopy and their grading systems (eg. the Yano-Yamamoto classification, the Spigelman score);
- Knowledge of the equipment, administration of the capsule, and up-loading of the data at the end of the procedure in at least 10 cases;
- Ability to recognise common pathologies encountered and interpret the findings in at least 30 cases;

Self Expanding Metal Stents in the colon

KNOWLEDGE

- Technique of colonic stricture dilatation and SEMS insertion in the colon.
 - Patient selection including liaison with radiological and surgical colleagues to optimize patient selection
 - Obtaining informed consent
 - Appropriate selection and use of x-ray screening or endoscopic guided stent insertion
 - Recognition of stent failure
 - Complications of the procedure

Summary of Endoscopy Curriculum

The trainee must study an approved curriculum in gastrointestinal endoscopy and demonstrate competence as measured by DOPS.

The core competencies will be:

- To assess and refer patients appropriately for GI endoscopy
- To ensure that informed consent is obtained from the patient prior to endoscopy or to ensure that appropriate steps are taken if the patient can not give informed consent
- To ensure patient safety is maintained during preparation for the procedure, throughout the procedure and in the period following the procedure
- To demonstrate an understanding of scope reprocessing and accessory handling
- To demonstrate an understanding of the issues involved in running an endoscopic service
- To provide safe and effective conscious sedation where appropriate for endoscopic procedures
- To perform diagnostic and therapeutic endoscopic procedures within the limit of their technical ability but to accepted national and international standards and norms. Specifically the trainee will be expected to diagnose benign and malignant disease found at GI endoscopy and direct its appropriate management. Furthermore the trainee will be expected to manage upper and lower GI bleeding, upper GI strictures and GI polyps.
- Those trainees that wish to train in other endoscopic procedures such as EUS, ERCP, capsule endoscopy and enteroscopy will be expected to perform diagnostic and therapeutic endoscopic procedures within the limit of their technical ability but to accepted national and international standards and norms
- To correctly identify pathology found at endoscopy and to direct appropriate management following its discovery
- To collect appropriate specimens and to provide direction on their handling
- To provide reports and review results of endoscopic procedures
- To participate in personal and institutional audit of endoscopic practice and outcome.

References

1. J. Springer, R. Enns, J. Romagnuolo, T. Ponich, A. Barkun, D Armstrong. Canadian credentialing guidelines for endoscopic retrograde cholangiopancreatography. *Can J Gastroenterol* 2008, 22:547-551.
2. Guidelines for Training in Diagnostic and Therapeutic Endoscopic Retrograde Cholangiopancreatography (ERCP), Training Guidelines, Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)
3. Conjoint Committee for the recognition of training in gastrointestinal endoscopy. Gastroenterological Society of Australia. May 2008
4. Guidelines for the training, appraisal and assessment of trainees in gastrointestinal endoscopy and for the assessment of units for registration and re-registration. Joint Advisory Group (JAG) on GI endoscopy (Representing The Royal College of Physicians of the UK, The Royal Colleges of Surgeons of the UK, The Royal College of Radiologist and The Royal College of General Practitioners) 2004.
5. *Gastrointest Endosc* 2001;54:811-814.
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7. Caletti *Gastrointest Endosc* 2001;54:811-814;
8. Hoffman & Hawes *Gastrointest Clin North Am* 1995;5:879-884;
9. Boyce *Gastrointest Endosc* 1996;43:S12-15.
10. Sidhu R, Sanders D S., Morris A J, McAlindon ME. Guidelines on small bowel enteroscopy and capsule endoscopy in adults. *Gut* 2008, 57:125-136.
11. Mishkin DS, Chuttani R, Croffe J. ASGE Technology Status Evaluation Report: wireless capsule endoscopy *Gastrointest Endosc* 2006; 63: 539-45.
12. Guidelines for wireless capsule endoscopy for investigation of small bowel disease London, Nice, 2004.

Option Modules:

Training in Gastroenterology requires the trainee to select from and undertake a variety (but not all) of these advanced options. Though some options will be full-time, others can be part-time, permitting training in both core Gastroenterology and the option module to be taken concurrently. These details of the training experience gained should be entered **at the time** on the sheets provided, which should be countersigned

NOTE: Trainees engaged in dual training (Gastroenterology with another specialty) will spend 30 months in various option modules, some of which will be undertaken concurrently with training in the second specialty e.g. General Internal Medicine. Trainee's in the single specialty of Gastroenterology spend 18 months engaging in the options selected from the list below:

- (a) Advanced Gastroenterology
- (b) Advanced Hepatology
- (c) Physiological measurement
- (d) Advanced nutrition
- (e) Paediatric and adolescent liaison Gastroenterology
- (f) Advanced therapeutic endoscopy
- (g) Imaging
- (h) Cancer care
- (i) Palliative medicine
- (j) Communicable disease
- (k) Psychological medicine
- (l) Research, basic skills
- (m) Advanced research options e.g.:
 - (i) at cellular level/molecular biology
 - (ii) whole organism studies/pathophysiology
 - (iii) clinical trials/epidemiology applied to Gastroenterology
- (n) The interface between primary and secondary care in Gastroenterology
- (o) Teaching and presentation skills
- (p) Health service management
- (q) Elective ("free" option e.g. pure epidemiology, genetic study, microbiology)

Quarterly Summaries of Satisfactory Training in Gastroenterology, Core Modules, including GIM & Procedures:

1. Clinical attendances (a), (b), (c), (d) Part I
2. Clinical attendances (e), (f), (g), (h) Part I
3. Clinical attendances (i), (j) and (k) Part I
4. Gastroenterology cases seen (a) and (b) Part II
General Medical Training (a), (b), (c) Part III
- 5a-d Gastroenterology procedures (a), (b), (c), (d) Part IV
- 5e-i Gastroenterology procedures (e), (f), (g), (h) and (i) Part IV

Annual Summaries of Satisfactory Training in Selected Option Modules, all years:

1. Option Modules (a) to (k)
2. Option Modules (l) to end.

Minimum Requirements for Training

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
Section 1 - Training Plan				
Personal Goals Plan (Copy of agreed Training Plan for your current training year signed by both Trainee & Trainer)	Required	1	Training Post	Form 052
Weekly Timetable (Sample Weekly Timetable for Post/Clinical Attachment)	Required	1	Training Post	Form 045
On Call Rota	Required	1	Training Post	Form 064
Section 2 - Training Activities				
Outpatient Clinics				
General Gastroenterology clinic (minimum 1 per week)	Required	40	Training Programme	Form 001
Inflammatory Bowel Disease (minimum 1 per week for 1 year)	Required	40	Training Programme	Form 001
Colorectal cancer (minimum 1 per month for 1 year)	Required	10	Training Programme	Form 001
Celiac (minimum 1 per month for 1 year)	Required	10	Training Programme	Form 001
Barrett's (minimum 1 per month for 1 year)	Required	10	Training Programme	Form 001
Hepatitis C (minimum 1 per week for 1 year)	Required	40	Training Programme	Form 001
Liver General (minimum 1 per week for 1 year)	Required	40	Training Programme	Form 001
Transplant	Required	1	Training Programme	Form 001
Nutrition	Required	1	Training Programme	Form 001
Ward Rounds/Consultations				
Consultant led (minimum 2 per week)	Required	80	Year of Training	Form 002
SpR led (2 per week)	Required	80	Year of Training	Form 002
Consultations	Required	1	Year of Training	Form 002
Emergencies/Complicated Cases				
Must include one of each of the following Gastrointestinal emergencies cases				
GI infections	Required	1	Training Programme	Form 003
Acute abdomen	Required	1	Training Programme	Form 003
Bleeding oesophageal varices	Required	1	Training Programme	Form 003

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
Bleeding peptic ulcer	Required	1	Training Programme	Form 003
Fulminant colitis	Required	1	Training Programme	Form 003
Cholangitis	Required	1	Training Programme	Form 003
Liver failure	Required	1	Training Programme	Form 003
Acute pancreatitis	Required	1	Training Programme	Form 003
Procedures/Practical Skills/Surgical Skills				
Non-endoscopic procedures	Required	1	Training Programme	Form 004
Endoscopy Module				
Upper Gastrointestinal Endoscopy (OGD) (Therapeutic & Diagnostic)	Required	200	Training Programme	Form 100
Colonoscopy (Therapeutic & Diagnostic)	Required	200	Training Programme	Form 101
Additional/Special Experience Gained (Advanced Options)				
Cases could include the following				
Advanced Gastroenterology	Desirable	1	Training Programme	Form 005
Advanced Hepatology	Desirable	1	Training Programme	Form 005
Physiological measurement	Desirable	1	Training Programme	Form 005
Advanced nutrition	Desirable	1	Training Programme	Form 005
Paediatric and adolescent liaison	Desirable	1	Training Programme	Form 005
Advanced therapeutic endoscopy	Desirable	1	Training Programme	Form 005
Imaging	Desirable	1	Training Programme	Form 005
Cancer care	Desirable	1	Training Programme	Form 005
Palliative medicine	Desirable	1	Training Programme	Form 005
Communicable disease	Desirable	1	Training Programme	Form 005
Psychological medicine	Desirable	1	Training Programme	Form 005
Elective (free option e.g. genetic study)	Desirable	1	Training Programme	Form 005
The interface between primary and secondary care in Gastroenterology	Desirable	1	Training Programme	Form 005
Relatively Unusual Cases	Desirable	1	Training Programme	Form 019
ICU/CCU	Desirable	1	Training Programme	Form 090
Chronic Cases/Long term care See the following examples: Chronic liver disease; Liver transplantation; Management of ascities; Irritable bowel syndrome; Chronic pancreatitis; AIDS; Dysphagia; Ulcer disease; Oesophageal & Gastric cancer	Required	10	Training Programme	Form 066

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
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	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
Nutrition course	Required	4	Training Programme	Form 006
Endoscopy Simulator Course	Required	1	Training Programme	Form 006
Basic skills of GI Endoscopy	Required	1	Training Programme	Form 006
Hands-on Colonoscopy	Required	1	Training Programme	Form 006
Non – Mandatory Courses	Desirable	1	Training Programme	Form 007
Study days See the following examples: Laboratory tests of GI Function; Care of the cirrhotic patient; Care of the cirrhotic patient; Update on HBV; Update on oesophageal disease; BSG; Ethical challenges in gastro; PUD; IBD update; Practical issues in ERCP; Complications of PHT	Required	6	Year of Training	Form 008
In-house activities				
Grand Rounds (minimum of 2 per month)	Required	20	Year of Training	Form 011
Journal Clubs	Required	1	Year of Training	Form 011
Radiology conference	Required	1	Year of Training	Form 011
Pathology conference	Required	1	Year of Training	Form 011
MDT Meeting	Required	1	Year of Training	Form 011
Seminar	Required	1	Year of Training	Form 011
Lecture	Required	1	Year of Training	Form 011
Examinations	Desirable	1	Training Programme	Form 012
Formal Teaching Activity (minimum 1 formal teaching session per month)				

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
Lecture	Required	4	Year of Training	Form 013
Tutorial	Required	4	Year of Training	Form 013
Bedside Teaching	Required	4	Year of Training	Form 013
Research	Desirable	1	Training Programme	Form 014
Audit activities (Minimum 1 audit per year either to start or complete)	Required	1	Year of Training	Form 015
Publications	Desirable	1	Year of Training	Form 016
Presentations (1 oral or poster per year)	Required	1	Year of Training	Form 017
National/International meetings (minimum 1 per year)	Required	1	Year of Training	Form 010
Additional Qualifications	Desirable	1	Training Programme	Form 065
Committee Attendance	Desirable	1	Training Programme	Form 063
Section 4 - Assessments				
DOPS				
OGD	Required	3	Year of Training	Forms 080 and 081
Colonoscopy	Required	3	Year of Training	Form 079
PEG – General Clinical DOPS form	Required	3	Year of Training	Form 021
ERCP	Required	3	Year of Training	Form 021
EUS	Required	3	Year of Training	Form 021
CBD See the following examples: Upper GI Tract; Upper abdominal pain/dyspepsia; Upper GI Symptoms and their management; Nausea & vomiting; Assess, investigate and stage upper GI Cancers; Laboratory tests of GI Function; Malabsorption, anorexia and weight loss; Short bowel syndrome; Anaemia; Abdominal pain; Jaundice; Liver failure and encephalopathy; Diagnose and manage Upper gastrointestinal bleeding; Constipation, diarrhea; Diagnosis and management of rectal bleeding & perianal fistula	Required	1	Year of Training	Form 020
Mini-CEX (At least two Mini-CEX assessments)	Required	2	Year of Training	Form 023