



FACULTY OF  
OCCUPATIONAL MEDICINE  
ROYAL COLLEGE OF PHYSICIANS OF IRELAND

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# HIGHER SPECIALIST TRAINING IN OCCUPATIONAL MEDICINE



**This curriculum of training in Occupational Medicine was developed in 2010 and undergoes an annual review by Dr. Blanaid Hayes, National Specialty Director, Dr. Ann O'Shaughnessy, Head of Education and Professional Development and by the Occupational Medicine Specialty Training Committee. The curriculum was approved by the Faculty of Occupational Medicine.**

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## Introduction

A trainee in Occupational Medicine must have experience in dealing with the impact of health on work, the effect of work on health, prevention of occupational injury and disease and promoting health, safety and welfare in the work environment.

The training programme will produce a doctor trained as an attentive listener, a careful observer, an effective communicator and a capable clinician. The trainee will have a training system that provides guidance, teaching, assistance, appraisal, assessment and support

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

## Aims

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

### Objectives:

To ensure trainees (i) have adequate training, necessary skills and overall competence in the management of relevant occupational medical problems; (ii) have adequate skills and overall competence to work in a multidisciplinary environment; and (iii) have a commitment to good medical practice in all its aspects.

**Competencies**, at a level consistent with practice in the specialty of Occupational Medicine, 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.
- Communication with employers and management
- Appraisal and utilisation of new scientific knowledge to update and continuously improve clinical practice.
- Risk assessment and risk communication
- Understand and dealing with areas of conflict
- 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 Occupational Medicine.
- 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

**Knowledge:**

The trainee should acquire the range and depth of knowledge necessary to plan and support any action in respect of the specialty contributing to each competency listed.

**Skills:**

The trainee should attain clinical, technical and allied skills pertinent to the management of employees presenting with common occupational medical problems and the need to work in a multidisciplinary setting.

**Attitudes:**

The trainee should develop a non-judgemental and non-discriminatory approach when working with employees, employers, managers, colleagues and liaising with other staff.

## Entry Requirements

Applications for Higher Specialist Training (HST) in Occupational Medicine must have:

*EITHER*

(1a) completed a **minimum** of two years Basic Specialist Training (BST) in approved posts recognised by the RCPI. Other equivalent clinical posts may be accepted subject to approval by the Faculty of Occupational Medicine, RCPI (FOM) and ICHMT.

*OR*

(1b) completed an approved Irish College of General Practitioner (ICGP) training course (or equivalent) in General Practice.

*AND*

MRCPI or UK or MICGP (or equivalent) is desirable, but not an essential requirement for entry to higher specialist training in the specialty. Graduates without MRCP/MICGP/MRCGP who compete for HST posts must provide evidence of appropriate knowledge, training and experience equivalent to MRCP/MICGP/MRCGP standard.

## Duration & Organisation of Training

The duration of HST in Occupational Medicine is four years full time equivalent. Up to one year of research, or time spent in academic training, may be a constituent part of the four year programme, provided that the content is relevant to Occupational Medicine. Each post within the programme to which the trainee is appointed will have a named supervisor/trainer. HST programmes will be under the supervision of the National Specialty Director for Occupational Medicine.

The four year training programme should contain:-

- A minimum of 18 months in an Industrial Sector (i.e. heavy and light industry, engineering, electronics, manufacturing, pharmaceutical, chemical, transport etc.).
- A minimum of 1 year in the Service Sector (i.e. Healthcare, Financial Services, Insurance, Office environment etc) to include at least 40 clinics in the Health Service.

The Occupational Health Units which provide training posts must be recognised by the Faculty of Occupational Medicine and ICHMT as suitable for HST. Trainees will be required to have work experience in units that offer a wide range of exposure to the various elements of the training curriculum for Occupational Medicine.

Time spent in overseas training posts in Occupational Medicine outside Ireland may be recognised provided that such posts and the content of the training and level of supervision they provide meets the requirements for HST as required by the Faculty of Occupational Medicine and ICHMT and prospective approval has been sought to undertake such training.

The Diploma of Membership of the Faculty of Occupational Medicine (MFOM) is an essential requirement for trainees enabling them to demonstrate that they have a broad understanding of occupational medical issues and their application in practice.

## 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.

### Facilities:

Training centres must have the minimum facilities listed below. For some skills the trainee may be sent on courses held at other centres.

The following are basic requirements of any medical training facility:

- Adequate office space for the trainee with access to word processing, internet and library facilities.
- Adequate clinical facilities to carry out confidential medical assessments.
- Adequate facilities to carry out near-patient testing where this is required.

The following are the speciality specific practice requirements designated by grade:

### Grades:

**Grade A** is an absolute requirement and a deficiency in this area requires immediate rectification, otherwise training recognition will be withdrawn. **Grade B** is a major deficiency, requiring rectification within an agreed timeframe. **Grade C** is a desirable target to be worked to prior to the next inspection

The facility should have sufficient throughput of occupational medical cases to allow the trainee to assess a minimum of 8 new cases per week on average. Pre employment assessments are not considered new cases. (Grade A)

The facility should have or have access to an audiometric booth and calibrated audiometer capable of performing audiograms to ISO standards (Grade B)

The facility should have access to a calibrated spirometer capable of performing lung function tests to ISO standards (Grade B)

The facility should have access to an accredited laboratory capable of performing analysis of biological samples (Grade B)

The facility should have access to a vision screener (e.g. Keystone) capable of performing eyesight test (Grade C)

The facility should have or have access to an occupational hygienist. (Grade C)

The facility should have or have access to an occupational ergonomist. (Grade C)

It is envisaged that training will take place at more than one centre and training programmes include rotation to widen experience. Rotation may be on an annual basis but may be more or less frequent. Normally an SpR is allocated to a single trainer for no more than 1 year of the 4 year rotation.

## **Training Programme**

Trainees are required to acquire the knowledge, skills and attitudes to a level of competence consistent with the standard expected of a specialist in Occupational Medicine. Three out of five days training, at a minimum, will be spent at the Occupational Health Unit and on-site visits and assessments. The remaining two days will be dedicated to attachments at relevant FOM/ICHMT approved attachments (see below). All time spent out of the training practice must be agreed in advance with the trainer. Any time in excess of the three days minimum, for which attachments have not been arranged must be spent in the training practice. The SpR is normally expected to have 1 half day per week, outside of the 3 day practice minimum, as protected time during which they should not be rostered. This is to allow time for personal study/ research.

During the training period the basic knowledge and skills will be consolidated in all the areas referred to above.

The trainee will normally be expected by the end of year 3 to have attained the Diploma of Membership of the Faculty of Occupational Medicine of the Royal College of Physicians of Ireland (MFOM).

It is understood that local conditions may determine the order and variety in which some of the above are experienced. The aim is to train occupational medicine physicians with sufficient knowledge and skill mix to allow them to pursue a career in a wide range of occupational settings including the health service, public, private and industrial sectors. This detailed curriculum document provides an overall guide to the knowledge and skills considered **essential** for attaining that goal.

## Essential Experience

### Occupational Health Clinics:

Trainees should participate in a minimum of 200 OH clinic sessions (3.5 hours each) or equivalent over the 4 year training period. These clinics must include at least 40 sessions in Health Service occupational health departments. There must be a broad mix of cases so that adequate experience with all the major occupational health issues detailed in this curriculum is gained.

### Workplace Assessments:

Trainees should carry out 20 worksite visits over the course of the 4 year period. These visits should cover a wide range of working environments and the trainee should identify the various hazards and their assessment and control within these settings. The trainee should interact with safety officers, hygienists and environmental safety officers.

### Clinical Cases:

Trainees are expected to see at least 400 occupational clinical cases each year. These, over the course of the training period should be across a range including audiology, psychosocial, respiratory, dermatological, toxicological, rehabilitation, disability assessment and musculoskeletal conditions. Uncomplicated pre employment assessments are not considered as cases.

### Outpatient Clinics:

The SpR will be expected to have both experience and knowledge in other relevant clinical specialities. The SpR, in consultation with the trainer, and where necessary the National Speciality Director, will identify those areas which would benefit from extra exposure taking into account the trainee's previous experience. This experience may be gained by, for example, personal reading, attendance at out patients, meetings or by way of a clinical attachment. The relevant specialities may include:

- General Practice
- Rheumatology
- Respiratory Medicine
- Dermatology
- ENT
- Ophthalmology
- Psychiatry
- Public Health Medicine

### Management:

It is essential that trainees attend a leadership course recognised by the RCPI.

Trainees should have an opportunity during the training period to be involved with the day-to-day management of the occupational health department including organisation of clinic sessions and departmental meetings and audit meetings. They should sit in on departmental decision making meetings in order to become familiar with management issues.

### Audit:

Audit is an important part of modern medical practice and trainees must attend audit meetings within the training unit. Trainees should organise intra and inter departmental audit meetings and perform or participate in at least one audit project during each year of the 4 year training programme.

**Research:**

Research is considered an essential part of the training programme. The trainees should attend a training course in research methods including medical statistics. It is envisaged that the second year is the optimum time to initiate research. Up to 6 months, of the 4 years programme can be used for a dedicated research project. This needs to be agreed in advance with the National Speciality Director. All trainees are encouraged to do this. A further 6 months, to a total of 1 year, can be taken as part of the Higher Specialist Training, in agreement with the National Speciality Director if the research undertaken in the first 6 months is deemed as exceptional and would benefit from further time. Exceptional research will be judged by publication/ presentations in peer reviewed journals or scientific bodies. The trainee may wish to spread research over a number of years. Trainees are encouraged to pursue research towards a higher degree (*MD or PhD*) though only one year of research (maximum) can be counted towards HST. The most appropriate time to undertake time dedicated to research is normally the third or fourth year of training when it is expected that the trainee will have sufficient clinical experience in the speciality to benefit to a maximum.

**Teaching:**

Where feasible, the trainee should be actively involved in in-house teaching (*case presentations, update of occupational diseases, health and safety issues*); teaching of general practitioners, nurse colleagues, undergraduates, postgraduates; employees, managers and others in occupational settings. Attendance at courses on teaching and educational methods (*local or national*) including presentation skills is encouraged.

**Courses:**

The following courses are recommended for all trainees. A degree of flexibility will be exercised depending on availability of courses and the trainees other commitments.

**Essential:**

- Management Training
- Research methodology including basic statistics
- Principles of audit in medical practice
- Basic Life Support Skills and Resuscitation

**Desirable:**

- Presentation skills
- Medico-legal report writing
- Expert witness and Courtroom skills
- Audiometry assessment
- Respiratory Function Testing
- Hand Arm vibration Assessment
- Internet and electronic database assessment skills
- Communication skills
- Ethics and medical practice
- Principles of health promotion
- Medical Review Officer (Drug Testing)

## Meetings

Attendance at national and international meetings is encouraged. **Trainees are expected to satisfy the annual CME requirements of the FOM/RCPI.** Trainees are encouraged to attend:

- Faculty/RCPI/Institute scientific meetings (Compulsory unless excused)
- ISOM and SOM meetings
- Relevant clinical meetings (local, national and international)
- International occupational medical events
- Faculty (UK) meetings
- Organised worksite visits

### Specific SpR Training days.

The trainee is expected to attend all designated SpR study days, typically up to 10 per year, unless excused by the National Speciality Director. In normal circumstances the trainee will not be excused more than two of these days in any training year.

## SPECIAL INTERESTS

Trainees are encouraged to acquire certain other skills and expertise depending on their own interests. Facilities for these should be provided, wherever possible, locally. If this is not possible the trainee should be assisted in attending relevant courses or another clinic where these skills are available. As far as possible, this experience should be built in on an individual basis in the training and rotational programme. Attainment of special skills in the follow are of particular merit: audiological assessment; lung function testing; hand arm vibration assessment; toxicology; environmental monitoring; biological monitoring.

## Overseas Experience

Approved overseas training is encouraged, in particular to study occupational disease or to undertake research in other settings or learn about the organisation of occupational medical services. Up to six months is permissible and should be approved by the Faculty of Occupational Medicine prior to taking up any such post.

## 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.

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 Occupational Medicine curriculum. They will remain the property of the trainee and must be produced at the annual assessment review.

Each trainee is responsible for maintaining an up-to-date record of progress through training and compiling a portfolio of achievements for presentation at annual assessment review. The trainee also has a duty to maximise opportunities to learn, supplementing the training offered with additional self-directed learning in order to fulfil all the educational goals of the curriculum. Trainees must co-operate with other stakeholders in the training process. It is in a SpR's own interest to maintain contact with the Medical Training Office and Dean of Higher Specialist Training, and to respond promptly to all correspondence relating to training. "Failure to co-operate" will be regarded as, in effect, withdrawal from the HST's supervision of training (*see the HST Training Handbook*).

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

## Assessment Process

The methods used to assess progress through training must be valid and reliable. The Occupational Medicine 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, direct observation of procedural skills (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 portfolio will be reviewed. A decision is made regarding progress, as detailed in the Training Handbook. At some or all of these annual reviews a non-specialty assessor will be present capable of addressing core competencies. An external assessor will participate in the penultimate year assessment (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, 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 C<sub>1</sub>**

repeat training year – **PeTRA Form C<sub>2</sub>**

The penultimate year assessment 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 Occupational Medicine 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 Occupational Medicine 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*); 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. The course is a short 1 -2 hour course at the start or the end of specialty study days to reduce time spent away from the hospitals. Communication skills will be assessed as part of the miniCEX

### **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 but not in Occupational Medicine

## **Specialty Study Days**

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

## **Annual Assessments**

### **Consultant feedback:**

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

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

### **Audit:**

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

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

### **Attendance at In- Hospital Speciality Radiology conferences**

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

**Committee membership:**

Many specialty curricula have identified participation in committees.

**Teaching skills**

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

**Presentations/Publications**

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

#### Evidence, audit, guidelines

- Basis for developing evidence-based medicine, kinds of evidence, evaluation; methodologies of clinical trials.
- Sources from which useful data for audit can be obtained, the methods of collection, handling data, the audit cycle.
- Means of determining best practice, preparing protocols, guidelines, evaluating their performance.
- Capable of accessing relevant data (library, internet use). Able to appraise available evidence critically.
- Able to complete an audit cycle relevant to practice; to develop, evaluate, review and update a set of guidelines.
- Uses evidence / guidelines appropriately having due regard for the individual.

## **SKILLS**

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

## **ASSESSMENT & LEARNING METHODS**

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

## Standards Of Care

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

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

### KNOWLEDGE

#### History taking and examination

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

#### Investigation, indications, risks, cost-effectiveness

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

#### Treatment and management of disease

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

#### Disease prevention and health education

- Disease notification; methods of collection and sources of data. Screening for disease, (*methods, advantages and limitations*). Health promotion and support agencies; means of providing and sources of information for patients.
- Risk factors, preventive measures, strategies applicable to smoking, alcohol, drug abuse, lifestyle changes.
- Able to advise on and promote lifestyle change, stopping smoking, control of alcohol intake. Able to assess and explain risk, encourage positive e.g. *immunisation* and negative preventive measures.

- Enlists / requires patients' involvement in solving their health problems, provides information, education. Avails of support provided by voluntary agencies and patient support groups, as well as expert services e.g. detoxification / psychiatric services.
- Non-judgemental approach to patient's problem: values contributions of health education and disease prevention to health in a community.

### **Notes, records, correspondence**

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

### **Time management and decision taking**

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

### **Relevance of professional bodies**

- Understand the relevance to practice of standards of care set down by recognised professional bodies – the Medical Council, Medical Colleges and their Faculties, and the additional support available from professional organisations *e.g. IMO, Medical Defence Organisations and from the various specialist and learned societies*.
- Actively engages with professional/representative/specialist bodies.
- Values the breadth and depth of experience that can be accessed by associating with professional colleagues.

## SKILLS

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

## ASSESSMENT & LEARNING METHODS

- Consultant feedback at annual assessment
- Workplace based assessment e.g Mini-Cex, DOPS, CBD
- Educational supervisor's reports on **observed** performance (in the workplace)
- Study Days
- Annual Audit

## Patient Safety

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

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

### KNOWLEDGE

#### Safe Systems, Competency and Safe practice

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

#### Communication

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

#### Near Misses and adverse events

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

#### Quality improvement

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

## SKILLS

- Effective Communication with patients, families and colleagues
- Co-operation and collaboration with colleagues to achieve safe and effective quality patient care
- Being an effective team player
- Understand how and why systems break down and why errors are made
- Be able to learn from errors and near misses to prevent future errors
- Know how to use relevant information from complaints, incident reports, litigation and quality improvement reports to control risks
- Minimise infection through improved infection control practice
- Minimise errors during invasive procedures by developing and adhering to best-practice guidelines for safe surgery.
- Minimise medication errors by practicing safe prescribing principles

## ASSESSMENT & LEARNING METHODS

- Consultant feedback at annual assessment
- Workplace based assessment e.g Mini-Cex, DOPS, CBD
- Educational supervisor's reports on observed performance (in the workplace): prioritization of patient safety in practice
- RCPI Patient safety on-line course (recommended)
- Completion of infection control induction in the workplace

## Therapeutics and Safe Prescribing

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

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

### KNOWLEDGE

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

### SKILLS

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

### ASSESSMENT & LEARNING METHODS

- Consultant feedback at annual assessment
- Workplace based assessment e.g Mini-Cex, DOPS, CBD
- Educational supervisor's reports on **observed** performance (in the workplace): prioritization of patient safety in prescribing practice

## Infection Control

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

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

### KNOWLEDGE

#### Within a consultation

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

#### In surgery or during an invasive procedure

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

#### During an outbreak

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

### SKILLS

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

- Avails of support provided by voluntary agencies and patient support groups, as well as expert services where appropriate
- Non-judgemental approach to patient's problem:
- Utilises and values contributions of health education and disease prevention and infection control to health in a community.

## **ASSESSMENT & LEARNING METHODS**

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

## Leadership

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

**Medical Council Domains of Good Professional Practice:** No.1 Patient Safety and Quality of Patient Care; No. 3 Communication and Interpersonal Skill; No. 4 Collaboration and Teamwork; No. 5 Management (including Self Management); No 6 Scholarship.

## KNOWLEDGE

### Demonstrating Personal Qualities

- Develops self-awareness and understanding of personal style and its impact on others
- Efficiently and effectively manages one- self and one's time especially when faced with challenging situations
- Continues personal and professional development through scholarship and further training and education where appropriate
- Acts with integrity and honesty with all people at all times

### Working with others

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

### Managing Services

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

### Improving Services

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

## Setting Direction

- Identifies the external and internal drivers setting the context for change
- Applies knowledge and evidence of systems and resource management to guide service development
- Makes decisions using evidence based medicine and performance measures
- Evaluates the impact of change on health outcomes through ongoing service evaluation

## SKILLS

- Effective Communication with patients, families and colleagues
- Co-operation and collaboration with others; patients, service users, carers colleagues within and across systems
- Being an effective team player Being able to managing resources and people
- Managing performance, performance indicators
- How to write and develop a service plan
- How to prepare and manage a budget

## ASSESSMENT & LEARNING METHODS

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

## Management Information Systems & Management Skills

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

**Medical Council Domains of Good Professional Practice:** No. 5 Management.

### KNOWLEDGE

#### Health service structure, management and organisation

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

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

- Methods of collecting, analysing and presenting information relevant to the health of a population and the apportionment of healthcare resources. The common ways in which data is presented. Know of the sources which can provide information relevant to national or to local services, publications available.
- Able to seek / locate information in order to define an issue needing attention e.g. to provide data relevant to a proposal for change, establishing a priority, obtaining resources.

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

- Understands the contribution that current, accurate knowledge can make to establishing clinical effectiveness, best practice, treatment protocols. Know sources providing updates, literature reviews and digests.
- Able to make use of information, use IT, undertake searches and obtain aggregated data, to critically evaluate proposals for change e.g. *innovative treatments, new technologies*.
- Embraces principles of clinical governance.

#### Delegation skills, empowerment and conflict management

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

## **Leadership**

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

## **SKILLS**

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

## **ASSESSMENT & LEARNING METHODS**

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

## Teaching & Research

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

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

### KNOWLEDGE

#### Teaching, educational supervision and assessment

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

#### Research, methodology and critical evaluation

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

### SKILLS

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

## Ethics

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

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

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

### KNOWLEDGE

- Knowledge of basic biomedical, behavioural and clinical sciences, medical ethics and medical jurisprudence and application of such knowledge in patient care.
- Interpersonal and communication skills that ensure effective informational exchange with individual patients and their families and teamwork with other health professionals, the scientific community and the public.
- Professionalism.

## Ethics I: Professionalism

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

### KNOWLEDGE

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

## Ethics II: Ethics & Law

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

### KNOWLEDGE

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

## Ethics III: Research

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

### KNOWLEDGE

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

## **Ethics IV: Public Health and Occupational Medicine**

*Objectives: To explore the ethics of public health and occupational medicine including the challenges and the impact of current developments*

### **KNOWLEDGE**

- Screening
- Confidentiality
- Immunisation
- Infectious disease

### **SKILLS**

- To incorporate the above ethical concepts in 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  
Occupational Medicine**

# General Principles of Assessment & Management of Occupational Hazards to Health

*Objective: To correctly carry out specialist assessment and management of Occupational Hazards to Health in a range of working environments.*

## KNOWLEDGE

### Understanding of:

- Physical, chemical, biological, ergonomic, psychosocial and other hazards to health in the workplace, and the illnesses, which they cause.
- Sources of information on and methods of evaluating and controlling risk.
- Emergency treatment of acute poisoning and injury at work.
- Recognise those situations where specialist assessment of the working environment is needed and be able to seek and evaluate advice.
- Diagnose work related ill health and provide advice on prognosis, prevention and management.
- Utilise appropriate information sources including information technology.
- Evaluate and advise on first aid facilities in the workplace.
- Liaison with occupational hygienists, ergonomists and other specialists in the assessment of working environments.

## SKILLS

- Take a clinical history including a detailed occupational history, and carry out a clinical examination proficiently
- Carry out and evaluate health surveillance including biological monitoring for workers exposed to occupational hazards.

## ASSESSMENT & LEARNING METHODS

- minCEX;
- Course in Basic Life Support Skills
- Study Day
- DOPS
- Diploma of Membership of the Faculty of Occupational Medicine

# Toxicology

**Objectives:** *To understand the principles of human toxicology and gain the skills to apply knowledge to the practice of Occupational and Environmental Medicine*

## KNOWLEDGE

- Clinical toxicology
- Classification of toxic agents
- Factors affecting clinical response to a toxic agent
- Toxicokinetics and Toxicodynamics
- Tests of Toxic Effects
- Toxicological Risk Assessment
- Dose Response Curves
- Diagnosis of Toxic Effects
- Management of Toxic Effects, emergency treatments
- Toxicology of organic chemicals
- Toxicology of non organic compounds
- Toxicology of heavy metals
- Reproductive toxicology
- Carcinogens in the workplace
- Biological effect monitoring
- Biological monitoring - acute and chronic
- Health surveillance

## SKILLS

- Assessment of potential risk to human health
- Interpreting multiple exposures
- Interpreting acute/ chronic exposures

## ASSESSMENT & LEARNING METHODS

- Case Based Discussion: Interpretation of information source e.g. Material Safety Data
- Case Based Discussion: Sheet Risk assessment for common toxicological exposure e.g. risk of exposure to lead above occupational exposure limit
- Diploma of Membership of the Faculty of Occupational Medicine

# Occupational Hygiene

**Objectives:** *To understand the principles of occupational hygiene and gain the skills to apply knowledge to the practice of Occupational and Environmental Medicine*

## KNOWLEDGE

- Anticipation of hazards in the workplace
- Recognition of hazards
- Evaluation of hazards
- Control of hazards, Hierarchy of control, Ventilation
- Sources of information
- Occupational hygiene surveys/ monitoring
- Sampling for specific contaminants
- Hygiene standards, exposure limits
- Methods
- Biological monitoring, Exposure indices

## SKILLS

- interpretation of an Occupational Hygiene Report

## ASSESSMENT & LEARNING METHODS

- Case Based Discussion: Interpretation of information source e.g. hygiene survey (Year 2 - 4)
- miniCEX: Risk assessment of hazards, walk through survey
- Diploma of Membership of the Faculty of Occupational Medicine

# Ergonomics

**Objective:** *To understand the principles of ergonomics and gain the skills to apply knowledge to the practice of Occupational and Environmental Medicine*

## KNOWLEDGE

- Structure of an Ergonomic programme
- Physical risk factors for Musculoskeletal disorders
- Workstation design principles
- Computer work stations
- Hand tool ergonomics
- Ergonomics of manual handling/lifting
- Ergonomic Risk assessment
- Environmental factors in ergonomics
- Evidence base and limitations of ergonomic programmes / biopsychosocial model.

## SKILLS

- Preliminary assessment of ergonomic hazards in the workplace
- Comparing hazards with clinical cases
- Risk reduction suggestions

## ASSESSMENT & LEARNING METHODS

- miniCEX: Year 1 -Risk assessment for ergonomic hazard e.g. Computer desk assessment
- miniCEX Risk assessment of workstations - Year 2 - 4
- Diploma of Membership of the Faculty of Occupational Medicine

## Occupational Health Disorders

**Objective:** To attain the Knowledge skills and attitudes in dealing with occupational health disorders to enable management of these cases in accordance with the principles and best practices in Occupational Medicine and to allow the doctor to function as an independent specialist practitioner in Occupational Medicine.

### KNOWLEDGE

- Clinical features and investigation of occupational disease
- Diagnose work related ill health and provide advice on prognosis, prevention and management.
- Conduct appropriate investigations for the diagnosis of occupational disease, liaising as necessary with doctors in other clinical specialties.
- Occupational musculoskeletal disorders
- Occupational Cancers
- Occupational Mental Health
- Stress
- Employment Assistance Programmes
- Occupational Infections
- Occupational hearing loss
- Occupational Skin Disorders
- Occupational Respiratory Disorders
- Occupational Cardiovascular disorders
- Occupational Hepatic disorders
- Occupational Renal Disorders
- Occupational Neurological Disorders
- Occupational Haematology
- Occupational Immunology
- Travel Medicine
- Occupational Radiation, Ionizing and Non Ionising
- Aviation and Diving Medicine
- Female reproductive issues
- Male reproductive issues
- Important occupational physical injuries
  - Eye
  - Vibration
  - Heat/ cold
  - Electrical
  - Radiation

### SKILLS

- Undertake assessments of working environment, recognise hazards, conduct preliminary quantitative measurements, arrange and interpret more detailed measurements and advise on prevention of health problems
- Diagnosis and management of occupational health disorders
- Liaise with other professional and employers.

## ASSESSMENT & LEARNING METHODS

- miniCEX: Continuous assessment from year 1 - end with increased competencies each year.
- DOPS: Clinical skills
- Diploma of Membership of the Faculty of Occupational Medicine
- Work site assessments - Recognition of occupational disorders
- Year 1 - 4: 5 sessions in the following clinics:
  - Rheumatology, Respiratory, Dermatology, ENT, Ophthalmology, Psychiatry
  - or
  - Audiometry assessment: Respiratory Function testing: Hand arm vibration assessment; Immunisations and antimalarials

## Principles of Health Surveillance & Biological Monitoring

**Objectives:** *To understand the principles of Health Surveillance and Biological Monitoring and gain the skills to apply knowledge to the practice of Occupational and Environmental Medicine*

### KNOWLEDGE

- Use of biological monitoring
- Methodology of monitoring
- Use of blood, urine, air
- Level in unexposed populations
- No adverse effect level
- Clinical Effect level
- Timing of samples
- Terminal Half life

### SKILLS

- Design appropriate biological monitoring programme
- Interpretation of results
- Communication of results and risks to worker

### ASSESSMENT & LEARNING METHODS

- DOPS: Interpretation of information source e.g. biological monitoring result
- Diploma of Membership of the Faculty of Occupational Medicine
- Design protocol for biological monitoring programme

# Assessment of Disability, Rehabilitation and Fitness for Work

*Objective: To be able to assess functional capacity and evaluate fitness for work.*

## KNOWLEDGE

### Understanding of:

- Principles of assessing fitness for work.
- Capacity of individual versus requirements of job
- Statutory requirements of fitness for specific jobs.
- Principles of rehabilitation and redeployment at work.
- Factors affecting sickness absence.
- Principles of social welfare and other disability benefits.
- Barriers to return to work: healthcare, personal, work.
- Role of good line management.
- Ill health retirement and pension scheme functioning.
- Impact and scope of Disability Legislation in the workplace.
- Assessing capability for work in those with a disablement/impairment.
- Manage cases suitable for rehabilitation and resettlement.
- Advice on impairment, disability, fitness for work, rehabilitation and redeployment.
- Designing a rehabilitation programme
- Understanding social versus medical model of absence from work
- Liaise with other health professionals in assessing capability for work.
- Advice on sickness absence and ill health retirement.
- Being independent when providing advice to managers/employers.

## SKILLS

- Assessing fitness for work
- Ergonomics
- Multidisciplinary team working
- Perform clinical assessment of disability and fitness for work at pre-employment and post-illness/injury.

## ASSESSMENT & LEARNING METHODS

- miniCEX, Continuous assessment from year 1 - end with increased competencies each year.
- Case Based Discussion: Paper based disability assessment/ ill health retirement
- DOPS: Clinical Assessment
- Diploma of membership of the Faculty of Occupational Medicine (MFOM)

## Communication

*Objective: To be able to communicate effectively with patients, employers, employee's representatives and professional colleagues in a range of working environments.*

### KNOWLEDGE

#### Understanding of:

- Organisation of occupational health services and the health service in Ireland and the role of statutory authorities.
- Organisation and role of other health and safety professionals and disciplines.
- Ethical guidelines for communications between occupational physicians, doctors, managers and others.
- Communicate with employee, employers, managers and other health professionals in an appropriate manner.
- Prepare written reports on a range of topics for a range of groups including managers, unions and health professionals.
- Be impartial when providing advice to managers/employers.

### SKILLS

- Generic

### ASSESSMENT & LEARNING METHODS

- Case based discussion
- DOPS: Patient and Employer communication
- Study Day - I every 2 - 3 years on Management, confidentiality
- Audit of medical reports/ letters to employers
- Leadership course

# Management

**Objective:** *To have sufficient knowledge of the principles and practices of management and industrial relations to be an effective occupational physician in a range of occupational settings.*

## KNOWLEDGE

- Principles and practice of management.
- Industrial relations and the role of employers, unions and others.
- Techniques for needs assessments and marketing of occupational health services.
- Management structures in different organisations.
- Principles of audit in a business and professional healthcare context.
- Define the roles of staff in providing an occupational health service and formulate job descriptions.
- Be able to collect and use information in the management of health and safety at work.

## SKILLS

- Promote an occupational health service.
- Demonstrate personal responsibility for the management of a department or some aspect of a department of occupational medicine.
- Strategically plan and set objectives for delivering an occupational health service including negotiating and managing a budget.
- Design and deliver a training event.
- Evaluate, audit aspects of the service

## ASSESSMENT & LEARNING METHODS

- Leadership Skills
- DOPS

# Occupational Health Law and Ethics

**Objective:** *To have sufficient knowledge of occupational health law and practice including ethical issues to effectively advise employers colleagues and others in a workplace setting.*

## KNOWLEDGE

- Understanding of the legislative framework of occupational health in Ireland, and EU including industrial compensation schemes.
- Acts, regulations, codes of practice and guidance governing occupational health and safety including the reporting of occupational injury and disease.
- The interaction between the law and ethics in occupational health practice.
- The roles of the medical, professional and expert witness.
- Procedures in litigation.
- Conflict of loyalty between Employer/Employee.
- Testing for drugs/alcohol in the workplace.
- Ensure professional practice is compliant with relevant disability, health and safety and employment law.

## SKILLS

- Ability to advise managers and others of their legal obligations.
- Act as an expert witness.
- Explain ethical framework to all stakeholders.

## ASSESSMENT & LEARNING METHODS

- Mandatory Study day: Expert witness/courtroom skills course - year 2 - 3
- Diploma of Membership of the Faculty of Occupational Medicine
- Ethics programme

## Environmental Issues Related to Work Practice

**Objective:** *To be able to recognise and advise on health risks in the general environment arising from industrial activities and other sources of environmental emissions...*

### KNOWLEDGE

- Understanding of physical, chemical and biological hazards to health arising in the environment from industrial activities.
- Basic toxicology of common environmental pollutants.
- Major Environmental contaminants including:
  - Asbestos
  - Lead
  - Mercury
  - Arsenic
  - Dioxin and Furans
  - Polychlorinated Biphenyls
  - Pesticides
  - Ionizing radiation
  - Outdoor air pollution
  - Water pollution
  - Building associated problems
  - Smoking and the workplace
- Methods for assessing and controlling environmental hazards and major industrial accidental hazards.
- Principles of integrated pollution control and incident control.
- The role of other professional groups with an interest in environmental health.
- Dangerous Substances (storage, packaging, labelling and conveyance).
- Health effects of Waste
  - Hazardous
  - Non hazardous
  - Medical
  - Radiological
- Relevant environmental legislation.
- Cooperate and liaise with health professionals and other scientific colleagues.
- Understanding principles of modelling (e.g. air) and potential effects on human health

### SKILLS

- Recognise and advise on the management of health risks from, and the control of hazardous exposure in the general environment arising from industrial activities.
- Liaise with other specialists responsible for environmental and community health, including public health physicians and environmental health officers.
- Identify sources of information on environmental hazards and their control.
- Liaise with emergency personnel in the event of an industrial incident.
- Principles of carrying out an environmental impact assessment.

## ASSESSMENT & LEARNING METHODS

- Compilation of environmental survey
- Case Based Discussion: Interpretation of environmental data e.g. air modelling report
- Diploma of Membership of the Faculty of Occupational Medicine

# Workplace Health Promotion

**Objectives:** *To assess the need for, organise, deliver and evaluate health promotion in a range of working environment.*

## KNOWLEDGE

- Major health risks relevant to working populations.
- Principles of health promotion and education.
- Health promotion agencies and sources of information.
- Assess needs for health promotion in a workforce.
- Combination of health protection / promotion, health & safety initiatives and ill-health management techniques
- Workability

## SKILLS

- Organise, provide and evaluate health promotion programmes.
- Participate in the delivery of health education in a range of settings.

## ASSESSMENT & LEARNING METHODS

- Case Based Discussion: Development of a Health Promotion Strategy for a named employer.
- Diploma of Membership of the Faculty of Occupational Medicine
- Presentation on health promotion

## Minimum Requirements for Training

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
<b>Section 1 - Training Plan</b>				
<b>Weekly Timetable</b> (Sample Weekly Timetable for Post/Clinical Attachment)	Required	1	Training Post	Form 045
<b>Personal Goals Plan</b> (Copy of agreed Training Plan for your current training year signed by both)	Required	1	Training Post	Form 052
<b>On Call Rota</b>	Required	1	Training Post	Form 064
<b>Section 2 - Training Activities</b>				
<b>Outpatient Clinics</b>				
Occupational health clinics (Minimum of 400 OH clinic sessions (3.5 hours each) or equivalent over the 4 year training period. These clinics must include at least 50 sessions in Health Service occupational health departments. At least 400 occupational clinical cases each year).	Required	100	Year of Training	Form 001
<b>Procedures/Practical Skills/Surgical Skills</b>				
Keystone vision test	Required	2	Training Programme	Form 004
Spirometry Procedure	Required	2	Training Programme	Form 004
Vaccinations ( including BCGs)	Required	5	Training Programme	Form 004
Mantoux administration	Required	2	Training Programme	Form 004
Mantoux interpretation	Required	2	Training Programme	Form 004
Urine drug testing	Required	2	Training Programme	Form 004
Breath tests for alcohol	Required	2	Training Programme	Form 004
Ergonomic assessment of workstation	Required	1	Training Programme	Form 004
Exercise ECG	Required	1	Training Programme	Form 004
<b>Additional/Special Experience Gained</b>	Desirable	1	Training Programme	Form 005
<b>Relatively Unusual Cases</b>	Desirable	1	Training Programme	Form 019
<b>Chronic Cases/Long term care</b> (minimum of 3 long term case management recorded over training)	Required	3	Training Programme	Form 066
<b>Management / Environmental / Health promotion / Miscellaneous</b>				
Design protocol for biological monitoring programme	Required	1	Training Programme	Form 073

<b>Curriculum Requirement</b>	<b>Required/Desirable</b>	<b>Minimum Requirement</b>	<b>Reporting Period</b>	<b>Form Name</b>
Prepare written report	Required	1	Training Programme	Form 073
Design and deliver a training event	Required	1	Training Programme	Form 073
Update a departmental policy	Required	1	Training Programme	Form 073
Develop a Standard operating procedure (SOP)	Required	1	Training Programme	Form 073
<b>Industrial attendances / worksite visits / special cases</b> (minimum of 20 worksite visits over the course of the 4 year period)				
Work site visits	Required	20	Training Programme	Form 075
Effect of work on health	Required	1	Training Programme	Form 075
Effect of health on work	Required	1	Training Programme	Form 075
<b>Management Experience</b>	Desirable	1	Training Programme	Form 110
<b>Section 3 - Educational Activities</b>				
<b>Mandatory Courses</b>				
Mastering Communications (Year 1)	Required	1	Training Programme	Form 006
Audit (Year 1)	Required	1	Training Programme	Form 006
Leadership Skills (Year 3+)	Required	1	Training Programme	Form 006
Ethics I: Professionalism	Required	1	Training Programme	Form 006
Ethics II: Ethics & Law	Required	1	Training Programme	Form 006
Ethics III: Research	Required	1	Training Programme	Form 006
Ethics IV: Issues for Occupational Medicine	Required	1	Training Programme	Form 006
Research Methodology including basic statistics	Required	1	Training Programme	Form 006
Management issues in occupational medicine	Required	1	Training Programme	Form 006
Basic Life Support Skills (BLS)	Required	1	Training Programme	Form 006
ACLS	Required	1	Training Programme	Form 006
<b>Non-mandatory courses</b>	Desirable	1	Training Programme	Form 007
Some examples include: (Audiometry Assessment, Expert Witness and Courtroom Skills, Hand Arm Vibration Syndrome (HAVS) Assessment, Internet and Electronic Database Skills, Medico-legal Report writing, Medical Review Officer (Drug Testing), Presentation Skills, Spirometry Testing)				

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
<b>Study Days (minimum of 8)</b>	Required	8	Year of Training	Form 008
See examples: (FOM Scientific Meetings X 3 (Spring, Autumn and AGM), Videoconferences X 2 (March and November), Study days X 5 organised by trainers (which may include workplace visits))				
<b>National/International meetings</b>	Required	2	Year of Training	Form 010
Some examples include: (FOM/ISOM, RCPI Meetings)				
<b>In-house Activities</b> (minimum of 1 per month from the categories below:)	Required	10	Year of Training	Form 011
Grand Rounds				
Journal Club				
Radiology Conference				
Pathology Conference				
MDT Meetings				
Seminar				
Lecture				
<b>Examinations</b>				
LFOM	Required	1	Training Programme	Form 012
<b>Teaching Activities</b> (1 formal teaching session per month from the categories below:)	Required	10	Year of Training	Form 013
Lecture				
Tutorial				
Bed side Teaching	Desirable	1	Training Programme	Form 013
<b>Research</b>	Desirable	1	Training Programme	Form 014
<b>Audit activities</b> (1 per year either to start or complete)	Required	1	Year of Training	Form 015
<b>Publications</b> (1 per year)	Required	4	Training Programme	Form 016
<b>Presentations</b> (Oral or poster presentation per year)	Required	1	Year of Training	Form 017
<b>Committee Attendance</b>	Desirable	1	Training Programme	Form 063
<b>Additional Qualifications</b>	Desirable	1	Training Programme	Form 065
<b>Section 4 - Assessments</b>				
<b>CBD</b>	Required	1	Year of Training	Form 020

<b>Curriculum Requirement</b>	<b>Required/Desirable</b>	<b>Minimum Requirement</b>	<b>Reporting Period</b>	<b>Form Name</b>
See examples: (Disability, Rehabilitation and Fitness for Work, Interpretation of Information Source (e.g. Toxicology, Occupational Hygiene Report), Risk Assessment for Toxicological Exposure, Environmental Issues Related to Work Practice, Biological Monitoring and Health Surveillance, Occupational Health Ethics and Law, Management Issues, Workplace Health Promotion)				
<b>DOPS</b>				
Keystone	Required	1	Training Programme	Form 021
Spirometry	Required	1	Training Programme	Form 021
Vaccine administration	Required	1	Training Programme	Form 021
Drug testing procedure	Required	1	Training Programme	Form 021
Ergonomic assessment of workstation	Required	1	Training Programme	Form 021
Exercise ECG	Required	1	Training Programme	Form 021
<b>Mini-CEX</b> (At least two Mini-CEX assessments)	Required	2	Year of Training	Form 023