



**FACULTY OF
OCCUPATIONAL
MEDICINE**

ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

HIGHER SPECIALIST TRAINING IN

OCCUPATIONAL MEDICINE



This curriculum of training in Occupational Medicine was developed in 2012 and undergoes an annual review by Dr Fiona Kevitt, National Specialty Director, Dr Ann O’Shaughnessy, Head of Education, and by the Occupational Medicine Training Committee. The curriculum is approved by the Faculty of Occupational Medicine.

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Table of Contents

INTRODUCTION.....	4
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.....	5
AIMS	6
PROFESSIONALISM	7
ENTRY REQUIREMENTS.....	8
DURATION & ORGANISATION OF TRAINING.....	9
TRAINING PROGRAMME	10
ANNUAL EVALUATION OF PROGRESS.....	12
ESSENTIAL EXPERIENCE.....	14
GENERIC COMPONENTS.....	15
GOOD PROFESSIONAL PRACTICE.....	16
INFECTION CONTROL.....	18
SELF-CARE AND MAINTAINING WELL-BEING	20
COMMUNICATION IN CLINICAL AND PROFESSIONAL SETTING	22
LEADERSHIP.....	24
QUALITY IMPROVEMENT.....	26
SCHOLARSHIP	27
MANAGEMENT	28
STANDARDS OF CARE	30
DEALING WITH & MANAGING ACUTELY ILL PATIENTS IN APPROPRIATE SPECIALTIES.....	33
THERAPEUTICS AND SAFE PRESCRIBING	35
SPECIALTY SECTION	37
GENERAL PRINCIPLES OF ASSESSMENT & MANAGEMENT OF OCCUPATIONAL HAZARDS TO HEALTH.....	38
TOXICOLOGY	39
OCCUPATIONAL HYGIENE.....	40
ERGONOMICS.....	41
OCCUPATIONAL HEALTH DISORDERS.....	42
PRINCIPLES OF HEALTH SURVEILLANCE & BIOLOGICAL MONITORING	44
ASSESSMENT OF DISABILITY, REHABILITATION AND FITNESS FOR WORK.....	45
MANAGEMENT AND RUNNING A BUSINESS	46
OCCUPATIONAL HEALTH LAW AND ETHICS.....	48
ENVIRONMENTAL ISSUES RELATED TO WORK PRACTICE.....	49
WORKPLACE HEALTH PROMOTION.....	51
APPLIED EPIDEMIOLOGY AND STATISTICS.....	53
WORK AND ORGANISATIONAL PSYCHOLOGY.....	54
DOCUMENTATION OF MINIMUM REQUIREMENTS FOR TRAINING	56

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 the promotion of 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
- Understanding of and dealing with areas of conflict
- 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

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

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

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), (which will include passing the MRCPI for intake from July 2013), 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. **Candidates who have completed BST in other specialties may also be considered.**

AND

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

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

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 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.

Trainees must spend the first two years of training in programme before undertaking any period of research or Out of programme experience (OCPE).

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 time will be dedicated to 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. It is recommended that a 2nd half day per week be allocated to the pursuit of formal research which will usually be conducted in the unit.

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

The trainee is encouraged to sit the examination of Licentiate of the Faculty of Occupational Medicine (LFOM) of the Royal College of Physicians of Ireland (RCPI) at the end of year two. 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 (MFOM) of the RCPI.

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 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.

Annual Evaluation of Progress

Overview

The HST Annual Evaluation of Progress (AEP) is the formal method by which a trainee's progression through her/his training programme is monitored and recorded each year. The evidence to be reviewed by the panel is recorded by the trainee and trainer in the trainee's e-Portfolio.

There is externality in the process with the presence of the National Specialty Director (NSD) and a Chairperson. Trainer's attendance at the Evaluation is mandatory, if it is not possible for the trainer to attend in person, teleconference facilities can be arranged if appropriate. In the event of a penultimate year Evaluation an External Assessor, who is a consultant in the relevant specialty and from outside the Republic of Ireland will be required.

Purpose of Annual Evaluation

- Enhance learning by providing formative Evaluation, enabling trainees to receive immediate feedback, measure their own performance and identify areas for development;
- Drive learning and enhance the training process by making it clear what is required of trainees and motivating them to ensure they receive suitable training and experience;
- Provide robust, summative evidence that trainees are meeting the curriculum standards during the training programme;
- Ensure trainees are acquiring competencies within the domains of Good Medical Practice;
- Assess trainees' actual performance in the workplace;
- Ensure that trainees possess the essential underlying knowledge required for their specialty;
- Inform Medical Training, identifying any requirements for targeted or additional training where necessary and facilitating decisions regarding progression through the training programme;
- Identify trainees who should be advised to consider a change in career direction.

Structure of the Meeting

The AEP panel speaks to the trainee alone in the first instance. The trainee is then asked to leave the room and a discussion with the trainer follows. Once the panel has talked to the trainer, the trainee is called back and given the recommendations of the panel and the outcome of the AEP.

At the end of the Evaluation, all panel members and the Trainee agree to the outcome of the Evaluation and the recommendations for future training. This is recorded on the AEP form, which is then signed electronically by the Medical Training Coordinator on behalf of the panel and trainee. The completed form and recommendations will be available to the trainee and trainers within their ePortfolio.

Outcomes

- Trainees whose progress is satisfactory will be awarded their AEP
- Trainees who are being certified as completing training receive their final AEP
- Trainees who need to provide further documentation or other minor issues, will be given 2 weeks (maximum 8) from the date of their AEP to meet the requirements. Their AEP outcome will be withheld until all requirements have been met.
- Trainees who are experiencing difficulties and/or need to meet specific requirements for that year of training will not be awarded their AEP. A date for an interim AEP will be decided and the trainee must have met all the conditions outlined in order to be awarded their AEP for that year of training. The "Chairperson's Overall Assessment Report" will give a detailed outline of the issues which have led to this decision and this will go the Dean of Postgraduate Specialist Training for further consideration.
- Trainees who fail to progress after an interim Evaluation will not be awarded their AEP.

The Dean of Postgraduate Training holds the final decision on AEP outcomes. Any issues must be brought to the Dean and the Annual Chairperson's Meeting for discussion.

Essential Experience

Occupational Health Clinics:

Trainees should participate in a minimum of 800 OH clinic sessions (3.5 hours each) or equivalent over the 4 year training period. These clinics must include at least 100 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 meetings or by way of a clinical attachment e.g. at outpatient clinics. This should be agreed with the trainer and NSD and may include:

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

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. Those in year 3-4 should have an opportunity to chair a departmental meeting.

Audit:

Audit is an important part of modern medical practice and is now a mandatory requirement of professional competence assurance. 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.

Generic Components

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

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

Good Professional Practice

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

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

KNOWLEDGE

Effective Communication

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

Ethics

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

Honesty, openness and transparency (mistakes and near misses)

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

Raising concerns about patient safety

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Infection Control

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

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

KNOWLEDGE

Within a consultation

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

During an outbreak

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Self-Care and Maintaining Well-Being

Objectives:

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

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

KNOWLEDGE

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Communication in Clinical and Professional Setting

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

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

KNOWLEDGE

Within a consultation

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

Difficult circumstances

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

Dealing with professional colleagues and others

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

Maintaining continuity of care

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

Giving explanations

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

Responding to complaints

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Leadership

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

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

KNOWLEDGE

Personal qualities of leaders

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

Working with others

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

Managing services

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

Setting direction

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

SKILLS

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

Demonstrating personal qualities

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

ASSESSMENT & LEARNING METHODS

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

Quality Improvement

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

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

KNOWLEDGE

Personal qualities of leaders

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

Managing services

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

Improving services

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

Setting direction

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

SKILLS

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

Demonstrating personal qualities

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

ASSESSMENT & LEARNING METHODS

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

Scholarship

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

Medical Council Domains of Good Professional Practice: Scholarship

KNOWLEDGE

Teaching, educational supervision and assessment

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

Research, methodology and critical evaluation

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

Audit

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Management

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

Medical Council Domains of Good Professional Practice: Management.

KNOWLEDGE

Health service structure, management and organisation

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

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

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

Maintaining medical knowledge with a view to delivering effective clinical care

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

Delegation skills, empowerment and conflict management

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Standards of Care

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

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

KNOWLEDGE

Diagnosing Patients

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

Investigation, indications, risks, cost-effectiveness

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

Treatment and management of disease

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

Disease prevention and health education

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

Notes, records, correspondence

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

Prioritising, resourcing and decision taking

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

Handover

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

Relevance of professional bodies

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

SKILLS

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

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

ASSESSMENT & LEARNING METHODS

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

Dealing with & Managing Acutely Ill Patients in Appropriate Specialties

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

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

KNOWLEDGE

Management of acutely ill patients with medical problems

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

Managing the deteriorating patient

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

Discharge planning

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Therapeutics and Safe Prescribing

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

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

KNOWLEDGE

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Specialty Section

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 and psychosocial hazards to health in the workplace, and the illnesses which they cause.
- Epidemiology of occupational illness and injury and interpretation of applied statistical analysis
- 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.
- Liaise with occupational hygienists, ergonomists and other specialists in the assessment of working environments
- Reporting schemes and their use (OPRA, HSA)

SKILLS

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

ASSESSMENT & LEARNING METHODS

- Basic Life Support skills course
- Case based discussion (CBD)
- Mini-CEX
- Study day
- Diploma of Membership of the Faculty of Occupational Medicine
- Self-directed learning
- Trainer's feedback
- End of year assessment

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

- CBD
 - Interpretation of information source e.g. Material Safety Data Sheet
- 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
- Self-directed learning
- Study day

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 controls, ventilation
- Sources of information
- Occupational hygiene surveys/ monitoring
- Sampling methods for specific contaminants
- Hygiene standards, exposure limits
- Biological monitoring, exposure indices

SKILLS

- Interpretation of an occupational hygiene report

ASSESSMENT & LEARNING METHODS

- CBD: Risk assessment of hazards, interpretation of information source e.g. hygiene survey - walk through survey (Year 2 - 4),
- Diploma of Membership of the Faculty of Occupational Medicine
- Self-directed learning
- Study day

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/ understanding of factors influencing risk perception.

SKILLS

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

ASSESSMENT & LEARNING METHODS

- DOPS:
 - Ergonomic assessment for computer workstation (Year 1)
 - Risk assessment of other workstations (Year 2 – 4)
- Diploma of Membership of the Faculty of Occupational Medicine
- Self-directed learning

Occupational Health Disorders

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

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
 - cancers
 - mental health
 - stress
 - infections
 - hearing loss
 - skin disorders
 - respiratory disorders
 - cardiovascular disorders
 - hepatic disorders
 - renal disorders
 - neurological disorders
 - haematology
 - 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
- Arrange referral for other medical specialist investigation and opinion if indicated
- Building Resilience in a Challenging Working Environment – mandatory course

ASSESSMENT & LEARNING METHODS

- CBD
- Mini-CEX: Clinical skills
- DOPS:
 - audiometry
 - spirometry
 - immunisation
 - hand-arm vibration assessment
- Work site assessments - Recognition of occupational disorders
- Diploma of Membership of the Faculty of Occupational Medicine
- Self-directed learning
- Trainer's feedback
- End of year assessment

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

- CBD: Interpretation of information source e.g. biological monitoring result
- Diploma of Membership of the Faculty of Occupational Medicine
- Self-directed learning
- Study day

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.
- Concepts of restriction, capacity and tolerance 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: the use of flags.
- Vocational rehabilitation: healthcare, personal and work factors
- Role of good line management.
- Ill health retirement and pension schemes and their role
- Impact and scope of disability legislation in the workplace.
- Assessing of capability for work in those with a disablement / impairment.
- Management of cases suitable for rehabilitation and resettlement.
- Advice on impairment, disability, fitness for work, rehabilitation and redeployment.
- Designing a rehabilitation programme
- Bio-psychosocial versus biomedical model in considering absence from work
- Need to liaise with other health professionals in assessing capability for work.
- The Bradford Factor
- Being independent when providing advice to managers /employers on any of the above
- Use of standardised tools in assessing mental health
- Use of employee assistance programmes / staff counselling services in addressing mental health issues
- Use of physiotherapy in facilitating rehabilitation

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

- Mini-CEX: Clinical examination
- CBD: paper based disability assessment/ ill health retirement
- DOPS: HADS or similar tools
- Diploma of Membership of the Faculty of Occupational Medicine (MFOM)
- Self-directed learning
- Trainer's feedback
- End of year assessment

Management and Running a Business

Objective: To have sufficient knowledge of the principles and practices of management and industrial relations to be effective in a range of workplace settings and to understand the principles and practicalities of developing and running a business; to gain the skills to be able to run a business; to develop a better understanding of the management pressures of maintaining a business.

KNOWLEDGE

- Principles and practice of management.
- Management structures in different organisations.
- Industrial relations and the role of employers, unions and others.
- Techniques for needs assessments
- Principles of audit in a business and professional healthcare context.
- Management of health and safety at work.
- Human resource management:
 - Recruitment and dismissal,
 - Motivation of staff
 - Legal issues
 - Costs, taxation/PRSI/pensions
 - Typical terms & conditions of employment
 - Roles in service provision & job descriptions
 - Interviewing techniques
 - Disciplinary processes,
- Legal principles
 - Limited company
 - Partnership
 - Basics of taxation law
- Accounts:
 - End of year accounts
 - Management accounts
 - Profit and loss accounts
 - Banking requirements
 - Financial record keeping / book-keeping
 - Debtors management;
- Business + Product development:
 - Design, testing and costing of new occupational health products /packages
 - Planning expansion; property
- Marketing:
 - Branding; client feedback; use of web and social media in marketing; print media
- Tendering process:
 - Retainers; writing tender documents; negotiating of contracts; service level agreements; the tender presentation; being interviewed
- Taxation:
 - Income tax; CGT; VAT; products subject to VAT; pensions
- Competition:
 - Ethical business practice
- Management of OH records when new provider appointed

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
- Design and costing of a new product
- Reading and understanding sets of accounts
- Writing a tender

ASSESSMENT & LEARNING METHODS

- Observation of a training event
- CBD
- HST Leadership in Clinical Practice course
- Self-directed learning

Occupational Health Law and Ethics

Objective: To have sufficient knowledge of occupational health law and ethical issues to advise effectively 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.
- Understanding acts, regulations, codes of practice and guidance governing occupational health and safety including the reporting of occupational injury and disease.
- 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, data protection and employment law.
- The interaction between the law and ethics in occupational health practice.
- Understanding the complex ethical framework in which occupational health is practised and use of available guidelines
- Ethical guidelines for communications between occupational physicians, doctors, managers and others.
- Communicate with employee, employers, managers and other health professionals in an appropriate manner.
-

SKILLS

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

ASSESSMENT & LEARNING METHODS

- RCPI ethics training programme
- CBD
- DOPS: drug testing procedures, chain of custody etc
- Diploma of Membership of the Faculty of Occupational Medicine
- Self-directed learning
- Trainer's feedback
- End of year assessment

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.
- Classification of biological agents
- Understanding of the principles of infection prevention and control as applied to employee safety and health and fitness for work:
 - Standard and transmission precautions
 - 5 moments of hand hygiene
- 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
- DOPS: use of hygrometer, lux meter, etc.
- CBD: Interpretation of environmental data e.g. air modelling report
- Diploma of Membership of the Faculty of Occupational Medicine
- Self-directed learning
- Trainer's feedback
- End of year assessment

Workplace Health Promotion

Objectives: To assess the need for, organise, deliver and evaluate health promotion in a range of work environments.

KNOWLEDGE

- Ottawa Charter:
 - Definition of health promotion, strategies and priorities
- WHO:
 - Definitions of obesity and overweight
 - Global recommendations on physical activity and health
 - Workplace as priority setting for HP in 21st century
 - Healthy Workplace Model
 - Major health risks relevant to working populations
- Department of Health & Children:
 - Public Health Policy
 - National Obesity Strategy
 - National Guideline on Physical Activity for Ireland
 - National Substance Misuse Policy
 - Slán reports on exercise, nutrition and alcohol
 - Food pyramid vs. nutrition plate
 - Health Promotion Department and other agencies / sources of information
- NICE Guidelines
- Determinants of health:
 - Social, behavioural, economic and environmental
 - Relationship between lifestyle risks and chronic disease (and importance of opportunistic health promotion by all clinicians)
- Models of Disease:
 - Bio-medical / bio-psycho-social / socio-environmental
- Behavioural change:
 - Stages of change model, health belief model, self- efficacy
- Smoking and Health
 - Tobacco control framework
 - Cessation
 - Brief motivational interventions
 - Pharmacotherapy
 - Counselling and other supports (HSE Quitline)
- Workplace health promotion:
 - Definition
 - Rationale
 - Principles for successful workplace HP
- Workability

SKILLS

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

ASSESSMENT & LEARNING METHODS

- Presentation on an aspect of health promotion
- DOPS
 - Use of standard tools to measure health risk e.g. cardiovascular, physical activity levels, BMI, screen for alcohol related risk, and determine appropriate smoking cessation intervention / assistance.
- CBD: Development of a health promotion strategy for a named employer
- Diploma of Membership of the Faculty of Occupational Medicine
- Self-directed learning
- Trainer's feedback
- End of year assessment

Applied Epidemiology and Statistics

Objective: To understand the epidemiological framework of work exposures on the frequency and distribution of disease and injuries in the workplace and apply this understanding in practice.

KNOWLEDGE

- Measures of disease occurrence: incidence, prevalence, standardized rates
- Measures of association: attributable risk, odds ratio, relative risk etc.
- Statistical inference :sampling populations, hypothesis testing, statistical tests
- Interpretation of association: bias, chance, confounding
- Causality: the Bradford-Hill criteria
- Principles of occupational epidemiology in relation to accidents at work: workplace injury (fatal and non-fatal), work related illness, working days lost.
- Principles of occupational epidemiology in relation to work- related disease asbestos-related disease, noise induced hearing loss, dermatitis, respiratory disease, HAVS, occupational cancers.
- How to report certain injuries and illnesses (e.g. notifiable diseases, prescribed diseases)
- Landmark epidemiological studies in the workplace : the Whitehall studies
- Healthy worker effect
- Health research principles including protocol development, study design, ethical review, data management.
- Types of study applied to workplace: cross sectional surveys, cohort studies, case control studies
- Investigation of clusters

SKILLS

- Ability to incorporate epidemiological principles into everyday occupational health practice
- Ability to exploit available work related health information nationally and elsewhere as appropriate
- Ability to contribute to local disease reporting systems (HSA, OPRA, Notifiable disease and prescribed diseases)

ASSESSMENT & LEARNING METHODS

- Self-directed learning
- Health Research – an Introduction course
- Attendance at scientific meetings and conferences (local/regional/national/international)
- Attendance at and participation in journal clubs, including the biannual FOM videoconference
- Publication in peer reviewed journals
- Diploma of Membership of the Faculty of Occupational Medicine
- Audit activities

Work and Organisational Psychology

Objectives:

- To utilise knowledge of organisational psychology principles in day to day clinical practice in the management of workplace problems.
- To use this knowledge to enhance the quality of communication with managers, employee representatives and professional colleagues in a range of working environments.

KNOWLEDGE

The organisation

- Organisation of occupational health services and the health service in Ireland and the role of statutory authorities.
- Organisational structure, culture and concepts of organisational justice
- Organisations as metaphors: machines, organisms, brains etc.
- The Hawthorne studies
- Minority groups at work and managing diversity
- Management of stress (primary, secondary, tertiary).
- Organisational change

The interface

- Conditioning (classical, operant, reinforcement, extinction, punishment)
- Models of occupational stress (interactional and transactional)
- Sources of stress in the workplace (the HSE's Management Standards)
- Team work (Belbin)
- Leadership
- Principles to be observed in risk communication
- Managing the challenge of interaction with an organisation as an outsourced provider of occupational health services.
- Optimising engagement with different management styles as an in-house provider of occupational health services
- Bringing about change in an organisation in relation to occupational health service
- Strategies for dealing with change within organisations

The individual

- Personality traits
- Attitude and behaviour
- Job satisfaction
- Organisational commitment
- Maslow's hierarchy of needs / motivation
- Perceptions (stereotypes, halo vs. horns)
- Factors influencing risk perception
- Psychological tools used for Motivational interviewing

SKILLS

- Ability to apply knowledge of organisational psychological principles to management of clinical cases and quality improvement projects
- Utilise knowledge of risk perception in all communications where negotiating and influencing is required
- Prepare written reports on a range of topics for a range of groups including managers, unions and health professionals.
- Building Resilience in a Challenging Working Environment – mandatory course

ASSESSMENT & LEARNING METHODS

- FOM workshop on organisational psychology
- CBD
- Diploma of Membership of the Faculty of Occupational Medicine
- Study day: management, ethics
- Audit of medical reports/ letters to employers
- HST Leadership in Clinical Practice course
- Sheffield Assessment Instrument of Letters (SAIL OH)
- Self-directed learning

Documentation of Minimum Requirements for Training

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

Curriculum Requirement	Required/ Desirable	Minimum Requirement	Reporting Period	Form Name
Section 1 - Training Plan				
Personal Goals Plan (Copy of agreed training plan for your current training year signed by both Trainee & Trainer)	Required	1	Training Post	Personal Goals Form
Section 2 - Training Activities				
Clinics				Clinics
Occupational health clinics (minimum of 800 OH clinic sessions (3.5 hours each) or equivalent over the 4 year training period. These clinics must include at least 100 sessions in a health	Required	200	Year of Training	
Procedures/Practical Skills				Procedures, Skills, & DOPS
Keystone vision test	Required	2	Training Programme	
Spirometry	Required	2	Training Programme	
Urine Drug Test	Required	2	Training Programme	
Breath Test for Alcohol	Required	2	Training Programme	
Audiometry	Required	2	Training Programme	
Immunisation	Required	2	Training Programme	
Hand arm vibration assessment	Required	2	Training Programme	
Use of HADS or similar tools	Required	2	Training Programme	
Drug testing procedures, chain of custody etc.	Required	2	Training Programme	
Observe a training event	Required	2	Training Programme	
Presentation on an aspect of health promotion.	Required	2	Training Programme	
Vaccinations (including BCG)	Required	5	Training Programme	
Mantoux administration	Required	2	Training Programme	
Mantoux interpretation	Required	2	Training Programme	
Ergonomic assessment of workstation	Required	2	Training Programme	

Curriculum Requirement	Required/ Desirable	Minimum Requirement	Reporting Period	Form Name
Additional/Special Experience Gained	Desirable	1	Training Programme	Cases
Relatively Unusual Cases	Desirable	1	Training Programme	Cases
Chronic Cases/Long term care	Required	3	Training Programme	Cases
Management / Environmental / Health promotion / Miscellaneous				Policies and Guidelines
Design protocol for biological monitoring programme	Required	1	Training Programme	
Prepare written report	Required	1	Training Programme	
Design and deliver a training event	Required	1	Training Programme	
Update a departmental policy	Required	1	Training Programme	
Develop a standard operating procedure (SOP)	Required	1	Training Programme	
Industrial attendances / worksite visits / special cases				Clinical and Other liaisons
Work site visits	Required	20	Training Programme	
Effect of work on health	Required	1	Training Programme	
Effect of health on work	Required	1	Training Programme	
Management Experience	Desirable	1	Training Programme	Management Experience
Section 3 - Educational Activities				
Mandatory Courses				Teaching Attendance
Basic life support skills (BLS)	Required	1	Training Programme	
Building Resilience in a Challenging Working Environment	Required	1	Training Programme	
Ethics Foundation	Required	1	Training Programme	
Ethics for Occupational Medicine	Required	1	Training Programme	
An Introduction to Health Research Methods	Required	1	Training Programme	
HST Leadership in Clinical Practice (Year 3+)	Required	1	Training Programme	
Mastering communication (Year 1)	Required	1	Training Programme	
Performing Audit (Year 1)	Required	1	Training Programme	
Non-mandatory courses				Teaching Attendance

Curriculum Requirement	Required/ Desirable	Minimum Requirement	Reporting Period	Form Name
Examples include: ACLS, 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	Desirable	1	Training Programme	
Study Days	Required	8	Year of Training	Teaching Attendance
See examples: (FOM Scientific Meetings X 3 (Spring, Autumn and AGM), Study days up to 5 organised by trainers (which may include workplace visits)				
National/International meetings	Required	2	Year of Training	Additional Professional Experience
Some examples include: (FOM / ISOM, RCPI Meetings)				
Participation in In-house Activities minimum of 1 per month from the categories below:	Required	10	Year of Training	Attendance at Hospital Based Learning
Grand Rounds				
Journal Club				
MDT Meetings				
Seminar				
Lecture				
Examinations				Examinations
LFOM	Required	1	Training Programme	
MFOM	Required	1	Training Programme	
Delivery of Teaching	Required	5	Year of Training	Delivery of Teaching
Lecture				
Tutorial				
Research	Desirable	1	Training Programme	Research Activities
Audit activities and Reporting (1 per year either to start or complete, Quality Improvement (QI) projects can be uploaded against audit)	Required	1	Year of Training	Audit & QI
Publications	Desirable	2	Training Programme	Additional Professional Experience

Curriculum Requirement	Required/ Desirable	Minimum Requirement	Reporting Period	Form Name
Presentations	Required	2	Training Programme	Additional Professional Experience
Committee Attendance	Desirable	1	Training Programme	Additional Professional Experience
Additional Qualifications	Desirable	1	Training Programme	Additional Professional Experience
Section 4 - Assessments				
CBD	Required	1	Year of Training	Case Based Discussion
Other non-mandatory course; examples include: i.e. 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				
DOPS	Required	1	Training Programme	Procedures, Skills, & DOPS
Ergonomic assessment of workstation	Required	1	Training Programme	
Spirometry	Required	1	Training Programme	
Audiometry	Required	1	Training Programme	
Immunisation	Required	1	Training Programme	
Hand arm vibration assessment	Required	1	Training Programme	
Drug testing procedure	Required	1	Training Programme	
Use of HADS or similar tools	Required	1	Training Programme	
Vaccine administration	Required	1	Training Programme	
Urine Drug Test	Required	1	Training Programme	
Breath Test for Alcohol	Required	1	Training Programme	
Mini-CEX	Required	2	Year of Training	Mini CEX
Quarterly Assessments/End of Post Assessments	Required	4	Year of Training	Quarterly Assessments/End of Post Assessments
End of Year Evaluation	Required	1	Year of Training	End Of Year Evaluation