



**FACULTY OF
PAEDIATRICS**

ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

INTERNATIONAL CLINICAL FELLOWSHIP TRAINING IN

PAEDIATRIC ONCOLOGY



This curriculum of training in Paediatric Oncology was developed in 2023 by Prof Michael Capra, it undergoes to annual review by Dr Ann O'Shaughnessy, Head of Education, and by the National Children's Cancer Centre, Dublin. The curriculum is approved by the Faculty of Paediatrics.

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Introduction

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

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

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

Aims

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

Competencies, at a level consistent with practice in the specialty, will include the following:

- Patient care that is appropriate, effective and compassionate dealing with health problems and health promotion.
- Medical knowledge in the basic biomedical, behavioural and clinical sciences, medical ethics and medical jurisprudence and application of such knowledge in patient care.
- Interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professionals, the scientific community and the public.
- Appraisal and utilisation of new scientific knowledge to update and continuously improve clinical practice.
- Capability to be a scholar, contributing to development and research in the field of the chosen specialty.
- Professionalism.
- Ability to understand health care and identify and carry out system-based improvement of care.

Professionalism

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

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

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

Training Programme Duration & Organisation of Training

The period of clinical training that will be provided under this International Clinical Fellowship Programme (ICFP) for medical specialities is up to 2 years.

Each ICFP developed by the Royal College of Physicians of Ireland will be specifically designed so as to meet the training needs of participants to support the health service in their home country.

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

The training programme offered will provide opportunities to fulfil all the requirements of the curriculum of training. There will be posts in both general hospitals and teaching hospitals.

Each post within the programme will have a named trainer/educational supervisor and programmes will be under the direction of the National Specialist Director of the relevant medical speciality to be confirmed by the College. Programmes will be as flexible as possible consistent with curricular requirements, for example to allow the trainee to develop their sub-specialty interest.

ePortfolio logbook

Each trainee is responsible for maintaining an up-to-date record of progress through training and compiling a portfolio of achievements for presentation at each annual assessment review. The trainee also has a duty to maximise opportunities to learn, supplementing the training offered with additional self-directed learning in order to fulfil all the educational goals of the curriculum.

Up-to-date training records and an ePortfolio of achievements will be maintained by the trainee throughout. The training records will be countersigned as appropriate by the trainers to confirm the satisfactory fulfilment of the required training experience and the acquisition of the competencies set out in the training plan. They will remain the property of the trainee and must be produced at their annual assessment review.

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

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

Review

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

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

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

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

Generic Components

Irish Medical Council Guidelines

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

ASSESSMENT & LEARNING METHODS

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

Infection Control

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

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

KNOWLEDGE

Within a consultation

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

During an outbreak

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Self-Care and Maintaining Well-Being

Objectives:

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

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

KNOWLEDGE

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Communication in Clinical and Professional Setting

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

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

KNOWLEDGE

Within a consultation

- How to effectively listen and attend to patients, parents and guardians
- How to structure an interview to obtain/convey information; identify concerns, expectations and priorities; promote understanding, reach conclusions and use age-appropriate language.
- How to empower the patient, and/or parent, 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 children and their guardians 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
- 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
- RCPI HST Leadership in Clinical Practice
- 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 everyday practice
- Ensuring patient safety by adopting and incorporating a patient safety culture
- Critically evaluating where services can be improved by measuring performance, and acting to raise standards where possible
- Encouraging a culture of improvement and innovation

Demonstrating personal qualities

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

ASSESSMENT & LEARNING METHODS

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

Scholarship

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

Medical Council Domains of Good Professional Practice: Scholarship

KNOWLEDGE

Teaching, educational supervision and assessment

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

Research, methodology and critical evaluation

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

Audit

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Management

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

Medical Council Domains of Good Professional Practice: Management.

KNOWLEDGE

Health service structure, management and organisation

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

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

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

Maintaining medical knowledge with a view to delivering effective clinical care

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

Delegation skills, empowerment and conflict management

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

SKILLS

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

ASSESSMENT & LEARNING METHODS

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

Standards of Care

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

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

KNOWLEDGE

Diagnosing Patients

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

Investigation, indications, risks, cost-effectiveness

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

Treatment and management of disease

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

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

Relevance of professional bodies

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

SKILLS

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

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

ASSESSMENT & LEARNING METHODS

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

Dealing with & Managing Acutely Ill Patients in Appropriate Specialties

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

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

KNOWLEDGE

Management of acutely ill patients with medical problems

- Presentation of potentially life-threatening problems
- Indications for urgent intervention, the additional information necessary to support action (e.g. results of investigations) and treatment protocols
- When to seek help, refer/transfer to another specialty
- APLS 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/APLS
- 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

- APLS 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
- 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 children receiving palliative care

SKILLS

- Writing a prescription in line with guidelines
- Appropriately prescribing for children and pregnant adolescent
- 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
- 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

Leukaemia

KNOWLEDGE

- understand what is known of the epidemiology of infant and childhood leukaemia and myelodysplastic syndrome (MDS) - including aetiology and genetic associations
- know the constitutional and genetic conditions that predispose to the development of leukaemia
- know the incidence of Acute lymphoblastic leukaemia (ALL) and Acute myeloid lymphoma (AML) and the peak age at which they occur
- be aware of the various clinical presentations of children with leukaemia and Myelo dysplastic syndrome (MDS)
- know about the appropriate diagnostic investigations in children with leukaemia and Myelo dysplastic syndrome (MDS)
- understand the prognostic factors in childhood leukaemia and their implications on risk stratification
- know about the cytogenetic and molecular abnormalities associated with infant leukaemia
- know about the current treatment trial protocols for childhood and infant leukaemia, Acute lymphoblastic leukaemia (ALL) and Acute myeloid lymphoma (AML), as well as for refractory and relapsed leukaemia
- have an historical perspective on the evolution of current trials for the treatment of leukaemia
- know about monitoring the response to treatment including minimal residual disease (MRD) with a recognition of its limitations
- understand the role of and indications for bone marrow transplant in infant and childhood leukaemia
- know the current role of radiotherapy in leukaemia treatment and the complications associated with it
- be aware of the role of immunotherapy for leukaemia
- know about the management of rarer forms of childhood leukaemia
- know the management of testicular, CNS and bone marrow relapse of leukaemia
- understand the prognostic factors associated with relapsed leukaemia
- know the clinical, laboratory and prognostic features of chronic myeloid leukaemia and juvenile myelomonocytic leukaemia
- know the clinical presentation, laboratory features and prognosis of myelodysplasias
- understand the role of bone marrow transplant in the treatment of myelodysplasia and chronic myeloid leukaemia in childhood

SKILLS

- be able to manage the complications of leukaemia treatment including tumour lysis, coagulopathy, thrombosis and infections
- be able to develop follow-up strategies for leukaemia survivors, identify late effects of therapy and counsel accordingly

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Hodgkin's Lymphoma

KNOWLEDGE

- know the epidemiologic, clinical, and laboratory features of Hodgkin's Lymphoma in children
- know the histological subtypes of Hodgkin's Lymphoma, their incidence in children and the effect of this on their prognosis
- know the clinical presentation and pattern of spread of Hodgkin's Lymphoma
- know the Ann-Arbor staging system for Hodgkin's Lymphoma
- know the laboratory parameters that may be seen in children with Hodgkin's Lymphoma at the time of diagnosis
- know how to image a patient with Hodgkin's appropriately to determine the extent of primary disease and metastatic spread of Hodgkin's Lymphoma
- know the advantages and limitations of CT, MRI and radionuclide scans in staging a patient with Hodgkin Lymphoma
- know the current treatment strategies for Hodgkin's Lymphoma including the role of radiotherapy
- know the complications and late effects of chemotherapy and radiotherapy in the treatment of Hodgkin's Lymphoma including cardiac and lung function, increased risk of breast cancer in those receiving mediastinal radiation at a young age and risks of subfertility

SKILLS

- recognise nodular Lymphocyte predominant Hodgkin's Lymphoma as a separate more indolent variant of Hodgkin's Lymphoma
- recognise impaired cellular immunity in a patient with Hodgkin's Lymphoma
recognise how functional imaging with FDG-PET (FluoroDeoxyGlucose Positron Emission Tomography) may be important in the assessment of response and determination of the role of radiotherapy

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Non-Hodgkin's Lymphoma (NHL)

KNOWLEDGE

- know the association of Epstein-Barr virus and human immunodeficiency virus with Non-Hodgkin's Lymphoma (NHL)
- know the cytogenetic and molecular genetic abnormalities associated with NHL
- understand that diagnosis of Non-Hodgkin's lymphoma can be made on pleural effusion or ascitic fluid alone
- know how to use the degree of bone marrow involvement to distinguish stage IV Non-Hodgkin's lymphoma and acute leukaemia
- know the prognostic features and prognosis of Non-Hodgkin's lymphoma according to stage and histology and immunophenotype
- know the current treatment strategies according to immunophenotype and pathological subtype

SKILLS

- recognise the histological subtypes of NHL in children and adolescents
- recognise the clinical presentation of Non-Hodgkin's lymphoma be aware of the role of immunotherapy in lymphomas
- be able to manage the acute presentations of NHL including SVC obstruction, airway compression, spinal cord compression, and tumour lysis

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Haemopoietic Stem Cell Transplantation (HSCT)

KNOWLEDGE

- understand the role of high dose therapy with autologous stem cell rescue in the management of malignant disorders in children and young adults
- know the indications for allogeneic haemopoietic stem cell transplantation (HCST) in children, including the indications for HCST from other than a matched sibling donor
- understand the advantages of allogeneic HSCT and donor lymphocyte infusion in some malignant disorders
- know the role of allogeneic HSCT in the treatment of leukaemia in children and young adults
- understand the principles of HLA (human leucocyte antigen) typing and donor selection, including the different potential sources of HCST, and HCST collection and cryopreservation
- know the commonly used chemotherapy conditioning regimens used in HCST in malignant disorders in children and young adults, and their short and long term side effects
- know the role of total body irradiation (TBI) in HCST, including its administration and short and long term side effects
- understand the principles of immunosuppression, and the types of immunosuppressive agents used in HSCT
- understand the consequences of myelosuppression and immunosuppression post-HCST, including the need for infection prophylaxis
- know the late effects of HCST in children, including growth, fertility and second malignancy

SKILLS

- be familiar with the complications of HCST and their management, including graft-vs.-host disease, veno-occlusive disease and graft failure

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Renal Tumours

KNOWLEDGE

- know the incidence of Wilm's tumour
- know the congenital anomalies associated with Wilm's tumour and the current strategies for screening
- know about the pathological subtypes of renal tumours including Wilm's tumour
- understand the relationship between the histology of Wilm's tumour and the prognosis, and the prognostic significance of histology after chemotherapy
- understand the cytogenetic and molecular aspects of Wilm's tumour
- know about the presentation and management of mesoblastic nephroma
- understand the significance of nephroblastomatosis in Wilm's tumour
- know how to stage Wilm's tumour pre- and post-surgery
- understand the principles of treatment for all stages of tumour according to the current (UKCCSG/SIOP) clinical trial (UK Children's Cancer Study Group / Société internationale d'oncologie pédiatrique, International Society of Paediatric Oncology)
- understand the principles of treating bilateral Wilm's tumour
- know the prognosis for Wilm's tumour
- understand the complications of Wilm's tumour and its treatment and late effects of treatment

SKILLS

- recognise the clinical presentation of a renal tumour and know the differential diagnosis of a renal mass
- be able to manage hypertension secondary to a renal mass
- be able to plan the management of a patient with recurrent Wilm's tumour
- be able to manage a patient with mesoblastic nephroma

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Neuroblastoma (NBL)

KNOWLEDGE

- know the association of Opsoclonus Myoclonus with neuroblastoma (NBL)
- understand the International staging system (INSS)
- know the prognostic factors and prognosis according to age and stage
- recognise laboratory findings in neuroblastoma (NBL) including urinary catecholamines, neurone specific enolase, ferritin and lactate dehydrogenase (LDH) and have an understanding of any prognostic significance they might have
- know the genetic variables which have a significance for the prognosis, such as MYCN amplification
- know the current European neuroblastoma group treatment strategies
- know about the side-effects of treatment and the risks associated with high dose therapy (HDT), for example VOD
- understand the principles of managing relapsed NBL

SKILLS

- recognise clinical presentation of neuroblastoma by age and by anatomic site, with and without metastases including stage iv S
- be able to manage the clinical problems associated with neuroblastoma, including hypertension, spinal cord compression, Horner's Syndrome, abdominal mass
- be able to use appropriate radiological investigations to diagnosis and stage neuroblastoma
- be able to identify neuroblastoma (NBL) cells in bone marrow (BM)

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Hepatic Tumours

KNOWLEDGE

- know which congenital conditions are associated with an increased risk of hepatoblastoma and the association of hepatocellular carcinoma with inborn errors of metabolism causing cirrhosis
- know the differential diagnosis of right upper quadrant masses
- know about tumour markers in primary liver tumours
- understand the pre-treatment staging system
- know the general principles of treatment
- understand the role of liver transplantation in the management of hepatic tumours
- understand the role of supra-regional centres and multi-centre communication in the care of children with hepatic tumours
- know about possible late effects of treatment
- know the prognosis of hepatoblastoma and hepatocellular carcinoma and factors that determine it

SKILLS

- recognise clinical presentation of hepatoblastoma and possible underlying cancer genetic predisposition syndromes
- be able to navigate the contemporary international liver tumour protocol, including inclusion criteria, risk stratification and treatment randomisations.
- be able to use appropriate radiological investigations to diagnosis and stage hepatoblastoma, specifically the PRETEXT system

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Retinoblastoma

KNOWLEDGE

- understand the inheritance pattern of bilateral retinoblastoma
- know the epidemiologic, genetic, and clinical features of unilateral and bilateral retinoblastoma
- recognize the clinical presentation of retinoblastoma and the clinical manifestations of trilateral retinoblastoma
- know that the central nervous system and bone marrow are the most common metastatic sites of retinoblastoma
- understand the staging of retinoblastoma according to the intraocular extent of the tumour
- know the role of surgery, irradiation, chemotherapy and photocoagulation in the treatment of retinoblastoma
- know about screening and follow-up for children who are siblings of a patient with retinoblastoma
- know the prognostic features and prognosis of retinoblastoma according to stage and histology
- know the complications and late effects of retinoblastoma including the risk of the development of secondary malignancy in unilateral or bilateral retinoblastoma

SKILLS

- be able to utilise imaging modalities appropriately to determine the extent and metastatic spread of retinoblastoma

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Rare Tumours

Objective: for the Trainee to

KNOWLEDGE

- understand the importance of wide consultation including with colleagues in adult specialties when managing 'rare' tumours in childhood, including interaction with rare tumour international registries
- understand the principles of treatment in adrenocortical tumours, malignant melanoma, nasopharyngeal carcinoma and thyroid carcinoma

SKILLS

- Ability to assimilate first principle information and data relative to how to access published data and personal interaction with international colleagues - thereafter to confirm a management plan

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Bone Tumours

KNOWLEDGE

- know about the epidemiology, predisposing factors and genetic predispositions associated with osteosarcoma and Ewings tumours
- be aware of the different pathologic subtypes of osteosarcoma and their effect on prognosis
- be aware of the different molecular subtypes of the Ewings family of tumours and their effect on prognosis
- know about the clinical presentations of osteosarcoma and Ewings tumours and potential metastatic sites
- know about the role of neoadjuvant chemotherapy and consolidation post-operatively, in the management of bone tumours
- know the differential diagnoses for plain x-ray appearances of a suspected bone tumour above a primary limb site to look for skip metastases
- understand the historical development of bone tumour management via serial clinical trials
- know about the role and limitations of surgery including the use of prostheses and the requirement to ensure management by site-specialised sarcoma orthopaedic oncologic surgeons
- understand the relevance of histological margins at resection and possible indications for further surgery or adjuvant radiotherapy
- understand the relevant prognostic indicators in different bone tumours, such as site, tumour volume and histopathological response to treatment
- know about the rehabilitation requirements for limb sparing, joint sparing surgery and massive resections including amputation
- know about growth requirements and management post-operatively for prosthetic insertions
- know about the late effects of bone tumour multi-modality management, including second malignancy predisposition

SKILLS

- be able to apply appropriate imaging modalities to elicit potential metastatic sites, including imaging the whole region
- be able to participate as a member of the bone (and soft tissue sarcoma) tumour multi-disciplinary team in the clarification of diagnoses and staging and treatment planning

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Soft Tissue Sarcoma

KNOWLEDGE

- know the cytogenetic and molecular genetic abnormalities associated with soft tissue sarcomas
- know about the histological subtypes of soft tissue sarcomas, including round cell sarcomas relative to prognosis and patterns of presentation and spread
- recognise the clinical presentation of rhabdomyosarcoma affecting the head and neck (parameningeal versus non-parameningeal), nasopharyngeal, orbital, pelvic and extremities
- know the role of surgery, chemotherapy and radiotherapy in the treatment of soft tissue sarcomas and current European treatment strategies
- know the prognosis of rhabdomyosarcoma according to a stage and histology and anatomic site of the primary tumour and the prognostic features of soft tissue sarcomas other than rhabdomyosarcomas

SKILLS

- be able to stage soft tissue sarcomas appropriately

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

Central Nervous System Tumours

KNOWLEDGE

- know the epidemiology of central nervous system (CNS) tumours
- know the cytogenetic and molecular genetic abnormalities associated with CNS tumours and recognize the association between brain tumours and heritable syndromes
- Know about the important role of methylation profiling and next-generation sequencing in the molecular diagnostic work-up of CNS tumours
- Discuss the role of targeted therapy in CNS tumours, including BRAF, MEK and NTRK receptor inhibitors
- know about the neuro-pathological subtypes and grading of brain tumours and their relation to tumour site, pattern of spread and prognosis
- know about the different clinical presentations of CNS tumours according to age of child, anatomical positional and presence of raised intracranial pressure
- understand the importance of staging in treatment and prognosis of CNS tumours (including the use of CSF cytology and serum and CSF tumour markers)
- know the role of surgery, irradiation and chemotherapy in the treatment of CNS tumours
- know about chemotherapy agents and delivery techniques in relation to the blood brain barrier
- understand the basics of radiobiology in relation to the effect of differing particles (photons versus protons), fractionation and dose on normal brain and spinal and tumour tissue
- know about radiotherapy planning techniques including, planning volumes & delivery techniques
- know the complications and late effects of brain tumours arising from; tumour, surgery, radiotherapy and chemotherapy related to patient's age and stage of development
- know about the potential neurological, endocrinological, cognitive, behavioural and social sequelae of CNS tumours and their treatment

SKILLS

- be able to demonstrate a basic ability in interpreting neuro-images
- be aware of the different neuro-imaging modalities (including positron emission tomography (PET) and be able to utilize appropriate modalities to determine the extent and metastatic spread of CNS tumours
- be able to work within the framework of a neuro-oncology multi-disciplinary team in planning an appropriate and safe initial diagnostic workup of a child with a CNS tumour
- be able to communicate effectively within a neuro-oncology multi-disciplinary team in planning the therapy for a child with a CNS tumour
- be able to monitor the response to treatment of CNS tumours using clinical, imaging, biochemical and histological markers
- be aware of secondary malignancies associated with treatment of CNS tumours (also management of a brain tumour as a second malignancy)
- be able to develop a multi-disciplinary team approach to rehabilitation including; physical therapy, speech & language, special senses (vision and hearing impairment), education (knowledge of special educational need provision), dietetics (management of obesity and failure to thrive), endocrine (assessment and replacement) and psycho-social care

ASSESSMENT & LEARNING METHODS

- Case-Based discussion
- Course/Study Day: participation in multidisciplinary meetings, departmental weekly teaching sessions

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 speciality 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 Plan
Section 2 - Training Activities				
Outpatient Clinics				Clinics
Oncology-Solid Tumour	Required	6	Year of Training	
Neuro-oncology	Required	6	Year of Training	
Acute Leukaemia clinic	Required	6	Year of Training	
Bone Marrow Transplant (HSCT) clinic	Required	3	Year of Training	
Follow-up clinic	Required	6	Year of Training	
Ward Rounds	Required	30	Year of Training	Clinical Activities
Consultations	Required	10	Year of Training	Clinical Activities
Emergencies/Complicated Cases	Required	5	Training Programme	Cases
Procedures/Practical Skills				Procedures, Skills & DOPS
Lumbar Puncture	Required	20	Year of Training	
Bone Marrow Aspiration	Required	20	Year of Training	
Bone Marrow Biopsy	Required	10	Year of Training	
Additional/Special Experience Gained	Desirable	1	Training Programme	Clinical Activities
Section 3 - Educational Activities				
Courses				Teaching Attendance
Ethics Foundation	Required	1	Training Programme	
Ethics for Paediatrics	Desirable	1	Training Programme	
An Introduction to Health Research	Desirable	1	Training Programme	
HST Leadership in Clinical Practice	Desirable	1	Training Programme	

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
Mastering Communications	Desirable	1	Training Programme	
Performing Audit	Required	1	Training Programme	
Wellness Matters	Desirable	1	Training Programme	
Study Days	Required	2	Year of Training	Teaching Attendance
Participation at In-house activities				Attendance at In House Activities
Grand Rounds	Required	5	Year of Training	
MDT Meetings	Required	40	Year of Training	
Delivery of Teaching				Delivery of Teaching
Bedside Teaching	Required	5	Year of Training	
Research	Desirable	1	Training Programme	Research Activities
Audit Activities and Reporting (1 per year to start or complete, Quality Improvement (QI) projects can be uploaded against audit)	Required	1	Training Programme	Audit & QI
Publications	Desirable	1	Training Programme	Additional Professional Activities
Presentations	Desirable	1	Training Programme	Additional Professional Activities
National/International meetings	Desirable	1	Training Programme	Additional Professional Activities
Section 4 - Assessments				
CBD	Required	10	Year of Training	CBD
Mini-CEX	Required	6	Training Programme	Mini-CEX
Quarterly Assessments/End-of-Post Assessment	Required	4	Year of Training	Quarterly/End of Post Assessment
End-of-Year Evaluation	Required	1	Training Programme	End of Year Evaluation