HIGHER SPECIALIST TRAINING IN

NEONATOLOGY
This curriculum of training in Neonatology was developed in 2014 and undergoes an annual review by Dr Naomi McCallion and Dr Martin White, National Specialty Directors, Dr Ann O’Shaughnessy, Head of professional Affairs, and by the Neonatology Training Committee. The curriculum is approved by the Faculty of Paediatrics Faculty of Paediatrics.

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Introduction

A Trainee in Neonatology must have experience in the transport of the sick newborn and have a full understanding of the principles and practice of regionalisation of perinatal care including transfer of high risk pregnancies to appropriate centres. The practice of neonatal/perinatal medicine involves the treatment of newborn infants at all levels of care from healthy newborns to those who require special and intensive care. An element of counselling is also incorporated within the practice, especially with regards to parents whose foetus is at significant risk.

Neonatology encompasses the management of prematurity and all the attendant physiological and pathological challenges as well as the diagnosis and management of congenital anomalies (identified both ante- and postnatally). It includes care of the well and sick infant in the newborn period, as well as long term follow-up of certain infants at risk of complications including neuro-disability. As such it has a very broad remit. There are significant acute and neonatal intensive care (NIC) components, but it also addresses the chronic management and developmental issues of graduates of the NIC unit. Many neonatologists are involved in clinical and basic science research to further our understanding of this special population of patients. Trainees must participate in care and management of the foetus and new-born in collaboration with maternal foetal medicine specialists and paediatric subspecialists. Trainees must be competent in the management of the critically ill newborn infant, including techniques of resuscitation, airway support, electric vital signs monitoring, temperature control and nutritional support.

This specialty training builds on and further develops the knowledge and skills acquired during the first two years of the HST General Paediatrics programme.

Besides these specialty specific elements, trainees in Neonatology must also acquire certain core competencies which are essential for good medical practice. These comprise the generic components of the curriculum. Trainees need to participate in multidisciplinary teams which include nursing and allied health staff in the care of newborns and their families.
Aims

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

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

- Patient care that is appropriate, effective and compassionate dealing with health problems and health promotion.
- Medical knowledge in the basic biomedical, behavioural and clinical sciences, medical ethics and medical jurisprudence and application of such knowledge in patient care.
- Interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professionals, the scientific community and the public.
- Appraisal and utilisation of new scientific knowledge to update and continuously improve clinical practice.
- The ability to function as a supervisor, trainer and teacher in relation to colleagues, medical students and other health professionals.
- Capability to be a scholar, contributing to development and research in the field of Neonatology.
- 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
Entry Requirements

Applications for the Higher Specialty Training Programme in Neonatology will have completed Basic Specialist Training (BST) in Paediatrics and obtained the MRCPI (or MRCPCH) in Paediatrics. In addition, candidates will only be eligible to apply for HST Neonatology after successful completion of Years 1 and 2 of the core Higher Specialist Training in General Paediatrics. Applications to the programme will only be accepted during the 2nd SpR year of General Paediatric Higher Specialist Training, for commencement in the following July or from trainees who have completed the first 2 years of General Paediatrics HST.

Prior to applying to the HST programme in the Sub-specialty of Neonatology, applicants must satisfy the following requirements:

- Be a current trainee on the Higher Specialist Training Programme in General Paediatrics
- Have completed 12 months of Neonatology and 12 months of General Paediatrics, including 3 months of Community Paediatrics as part of the SpR programme
- Success in a competitive interview process into the sub specialty

Duration & Organisation of Training

The duration of HST in Neonatology is 3 years (years 3 – 5 of HST). It is currently a mono specialty training programme, with the option of dual training being explored over the next few years. Sub-specialty training in Neonatology will build on a broad basic and early specialist training in General Paediatrics. Eligibility criteria for Neonatal Sub-specialist Training will include Basic Specialist Training (BST) in Paediatrics and successful completion of year 1 and 2 of the Higher Specialist Training Programme in General Paediatrics.

Training in pre- and postoperative care of the surgical and cardiac infant will be provided by a six month rotating post within the Dublin PICU network. Up to 6 months of training in a relevant, pre-approved paediatric subspecialty may be counted towards NST (e.g. neonatology in a paediatric hospital, genetics etc), but strict criteria will apply for post recognition. In addition, up to a maximum of 12 months of pre-approved Out of Clinical Programme Experience (OCPE) may be accredited towards completion of training. This may encompass either overseas experience in a formal training fellowship or research leading to a postgraduate degree, subject to approval by the NST programme.

Experience at an intermediate grade in acute General Paediatrics in-patient care must involve assessment and treatment of acutely ill infants and children and the support and supervision of junior medical staff.
The organisation of the training is as follows:

**Year 1**  
**HST General Paediatrics**
- Neonatology in recognised Neonatal Centre

**Year 2**  
**HST General Paediatrics**
- General Paediatrics (± Community Paediatrics)
- Application for Neonatal Sub-specialty Training Programme

**Year 3 - 5**  
**HST Neonatology Programme**
- Neonatology Sub-specialty Training in a minimum of 2 out of four Tertiary Maternity Centres in Ireland (NMH, Holle’s St, Coombe Women’s Hospital, Rotunda Hospital, Dublin and Cork University Maternity Hospital). *It is also expected that once the National Children’s Hospital is built, trainees will rotate through this site as part of their training.*
- Total of 24 months minimum in maternity tertiary centres, with exposure to a minimum of 2 tertiary centres during NST training in Ireland
- Paediatric Intensive Care management of pre- and postoperative neonatal conditions including congenital surgical and cardiac problems
- Sub-specialty posts which have applied for and have been approved for, recognition for subspecialty training in Neonatology in advance. These could include allied specialties and neonatology in the tertiary paediatric centres, subject to approval
- Up to a maximum of one year of pre-approved out of clinical programme experience (OCPE) may be accredited towards the completion of training, for overseas fellowship programmes (of structured and supervised training in Neonatology) or research leading to a postgraduate degree.
Flexible Training

National Flexible Training Scheme – HSE NDTP

The HSE NDTP operates a National Flexible Training Scheme which allows a small number of Trainees to train part time, for a set period of time.

Overview

- Have a well-founded reason for applying for the scheme e.g. personal family reasons
- Applications may be made up to 12 months in advance of the proposed date of commencement of flexible training and no later than 4 months in advance of the proposed date of commencement
- Part-time training shall meet the same requirements as full-time training, from which it will differ only in the possibility of limited participation in medical activities to a period of at least half of that provided for full-time trainees

Job Sharing - RCPI

The aim of job sharing is to retain doctors within the medical workforce who are unable to continue training on a full-time basis.

Overview

- A training post can be shared by two trainees who are training in the same specialty and are within two years on the training pathway
- Two trainees will share one full-time post with each trainee working 50% of the hours
- Ordinarily it will be for the period of 12 months from July to July each year in line with the training year
- Trainees who wish to continue job sharing after this period of time will be required to re-apply
- Trainees are limited to no more than 2 years of training at less than full-time over the course of their training programme

Post Re-assignment – RCPI

The aim of post re-assignment is to support trainees who have had an unforeseen and significant change in their personal circumstances since the commencement of their current training programme which requires a change to the agreed post/rotation.

Overview:

- Priority will be given to trainees with a significant change in circumstances due to their own disability, it will then be given to trainees with a change in circumstances related to caring or parental responsibilities. Any applications received from trainees with a change involving a committed relationship will be considered afterwards
- If the availability of appropriate vacancies is insufficient to accommodate all requests eligible trainees will be selected on a first come, first serve basis

For further details on all of the above flexible training options, please see the Postgraduate Specialist Training page on the College website www.rcpi.ie
Training Programme

The training programme offered will provide opportunities to fulfil all the requirements of the curriculum of training for Neonatology in approved training hospitals. Each post within the programme will have a named trainer/educational supervisor and programmes will be under the direction of the Joint National Specialty Directors (NSDs) for Neonatology. The Joint NSDs in Neonatology will sit on the current General Paediatric Specialty Training Committee (STC) until the new Sub-specialty Training Programme has become established. See Figure 1 below regarding the governance structure. Completion of Neonatal Subspecialty Training will result in CSCST in Neonatology and ensure that candidates graduating from the programme will be competent to accept total responsibility for patient welfare and clinical care.

The experience gained through rotation around different departments is recognised as an essential part of HST. A Specialist Registrar may not remain in the same unit for longer than 2 years of clinical training; or with the same trainer for more than one clinical year.

Where an essential element of the curriculum is missing from a programme, access to it should be arranged, by day release for example, or if necessary by secondment.

Figure 1: Governance Structure
Teaching, Research & Audit

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

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

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

Time spent in formal education posts (lecturer) leading to a higher degree may be considered for recognition on a case by case basis subject to approval by the Joint NSDs in Neonatology.
ePortfolio

The trainee is required to keep their ePortfolio up to date and maintained throughout HST. The ePortfolio 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 Curriculum. This will remain the property of the trainee and must be produced at the annual Evaluation meeting.

The trainee also has a duty to maximise opportunities to learn, supplementing the training offered with additional self-directed learning in order to fulfil all the educational goals of the curriculum. Trainees must co-operate with other stakeholders in the training process. It is in a SpR’s own interest to maintain contact with the Medical Training Department and Dean of Postgraduate Specialist Training, and to respond promptly to all correspondence relating to training. “Failure to co-operate” will be regarded as, in effect, withdrawal from the HST’s supervision of training.

At the annual Evaluation, the ePortfolio will be examined. The results of any assessments and reports by educational supervisors, together with other material capable of confirming the trainee’s achievements, will be reviewed.

Assessment Process

The methods used to assess progress through training must be valid and reliable. The Curriculum has been re-written, describing the levels of competence which can be recognised. The assessment grade will be awarded on the basis of direct observation in the workplace by consultant supervisors. Time should be set aside for appraisal following the assessment e.g. of clinical presentations, case management, observation of procedures. As progress is being made, the lower levels of competence will be replaced progressively by those that are higher. Where the grade for an item is judged to be deficient for the stage of training, the assessment should be supported by a detailed note which can later be referred to at the Annual Evaluation Meeting.

The assessment of training may utilise the Mini-CEX, DOPS and Case Based Discussions (CBD) methods adapted for the purpose. These methods of assessment have been made available by HST for use at the discretion of the NSD and nominated trainer. They are offered as a means of providing the trainee with attested evidence of achievement in certain areas of the Curriculum e.g. competence in procedural skills, or in generic components. Assessment will also be supported by the trainee’s portfolio of achievements and performance at relevant meetings, presentations, audit, in tests of knowledge, attendance at courses and educational events.
Annual 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 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.
Facilities

A consultant trainer/educational supervisor has been identified for each approved post. He/she will be responsible for ensuring that the educational potential of the post is translated into effective training which is being fully utilized. The training objectives to be secured should be agreed between trainee and trainer at the commencement of each posting in the form of a written training plan. The trainer will be available throughout, as necessary, to supervise the training process.

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

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

Trainees in Neonatology should have access to an educational programme of e.g. lectures, demonstrations, literature reviews, multidisciplinary case conferences, seminars, study days etc, capable of covering the theoretical and scientific background to the specialty. Trainees should be notified in advance of dates so that they can arrange for their release. For each post, at inspection, the availability of an additional limited amount of study leave for any legitimate educational purpose has been confirmed. Applications, supported if necessary by a statement from the consultant trainer, will be processed by the relevant employer.
Generic Components
This chapter covers the generic components which are relevant to HST trainees within the Faculty of Paediatrics 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 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 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, 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-malfeasance and justice
- Recognise own feelings in straightforward and complex patient-doctor interactions
- Recognising the symptoms of stress and burnout

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 (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

<table>
<thead>
<tr>
<th>KNOWLEDGE</th>
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<tbody>
<tr>
<td>Teaching, educational supervision and assessment</td>
</tr>
<tr>
<td>- Principles of adult learning, teaching and learning methods available and strategies</td>
</tr>
<tr>
<td>- Educational principles directing assessment methods including, formative vs. summative methods</td>
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<tr>
<td>- The value of regular appraisal / assessment in informing training process</td>
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<tr>
<td>- How to set effective educational objectives and map benefits to learner</td>
</tr>
<tr>
<td>- Design and delivery of an effective teaching event, both small and large group</td>
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<tr>
<td>- Use of appropriate technology / materials</td>
</tr>
<tr>
<td>Research, methodology and critical evaluation</td>
</tr>
<tr>
<td>- Designing and resourcing a research project</td>
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<tr>
<td>- Research methodology, valid statistical analysis, writing and publishing papers</td>
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<tr>
<td>- Ethical considerations and obtaining ethical approval</td>
</tr>
<tr>
<td>- Reviewing literature, framing questions, designing a project capable of providing an answer</td>
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<tr>
<td>- How to write results and conclusions, writing and/or presenting a paper</td>
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<tr>
<td>- How to present data in a clear, honest and critical fashion</td>
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<tr>
<td>Audit</td>
</tr>
<tr>
<td>- Basis for developing evidence-based medicine, kinds of evidence, evaluation; methodologies of clinical trials</td>
</tr>
<tr>
<td>- Sources from which useful data for audit can be obtained, the methods of collection, handling data, the audit cycle</td>
</tr>
<tr>
<td>- Means of determining best practice, preparing protocols, guidelines, evaluating their performance</td>
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<tr>
<td>- The importance of re-audit</td>
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<table>
<thead>
<tr>
<th>SKILLS</th>
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<tbody>
<tr>
<td>- Bed-side undergraduate and post graduate teaching</td>
</tr>
<tr>
<td>- Developing and delivering lectures</td>
</tr>
<tr>
<td>- Carrying out research in an ethical and professional manner</td>
</tr>
<tr>
<td>- Performing an audit</td>
</tr>
<tr>
<td>- Presentation and writing skills – remaining impartial and objective</td>
</tr>
<tr>
<td>- Adequate preparation, timekeeping</td>
</tr>
<tr>
<td>- Using technology / materials</td>
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<tr>
<th>ASSESSMENT &amp; LEARNING METHODS</th>
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<tbody>
<tr>
<td>- Health Research (online) – An Introduction</td>
</tr>
<tr>
<td>- Effective Teaching and Supervising Skills course (online) - recommended</td>
</tr>
<tr>
<td>- Educational Assessment Skills course - recommended</td>
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<tr>
<td>- Performing audit (online) course –mandatory</td>
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<tr>
<td>- Health Research Methods for Clinicians - recommended</td>
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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 references 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 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)
• 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 patient’s 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
The Fetus Prior to Birth

Objective: Demonstrate an in-depth understanding of the management of the fetus and family

**KNOWLEDGE**

- Normal fetal growth and development
- Common maternal conditions which affect fetal growth and development
- Fetal and neonatal effects of intrauterine infections
- Common congenital abnormalities identifiable in the fetus
- Effects on the fetus and neonate of maternal medications and illicit drug use
- Methods of assessing fetal well-being
- Indications and outcome of common feto-placental interventions
- Survival and long-term neurodevelopmental outcome data of extremely preterm newborns by week of gestation

**SKILLS**

- Interpret antenatal screening tests in diagnosis of fetal abnormality
- Convey to parents the concepts and mechanisms of genetic diseases using non-technical language
- Interpret results of tests of fetal wellbeing
- Interpret results of fetal imaging
- Participate in multidisciplinary management of high risk pregnancies, including pregnancies with known fetal abnormalities
- Counsel parents of a high risk pregnancy, including pregnancies with a known fetal abnormality
- Counsel parents anticipating the birth of an extremely preterm infant, including the discussion of management options at the threshold of viability

**ASSESSMENT & LEARNING METHODS**

- CBD – fetal medicine
- Fetal medicine clinics
- Fetal medicine counselling DOPS
  - Anomalies
  - Antenatal counselling
- Study day - Antenatal Diagnosis: Genetics, genetic testing, Antenatal Diagnosis, Fetal Medicine and Counseling.
The Fetus During Birth and Transition

Objective: Demonstrate an ability to competently manage complications during birth

**KNOWLEDGE**

- Physiological changes involved in the transition to extrauterine life
- Common neonatal complications associated with birth
- Neonatal resuscitation, including national and international resuscitation guidelines
- Feto-maternal conditions which may influence mode of delivery and/or resuscitation
- Thermoregulatory principles in the newborn, including an understanding of the thermoneutral environment

**SKILLS**

- Perform basic resuscitation of the newborn
- Perform advanced airway support including endotracheal intubation during resuscitation of the newborn
- Lead a resuscitation team
- Counsel parents of an infant who has failed to respond to resuscitation
- Show a diagnostic approach and initial management of the sick newly born infant
- Perform and interpret an assessment of gestational age, using appropriate score
- Perform competent thermal management of the newborn
- Communicate with the parents of a newly born sick infant

**ASSESSMENT & LEARNING METHODS**

- NRP
- Breaking Bad News course
- Study day - Resuscitation: optimal term and preterm neonatal resuscitation and simulation of complex resuscitation scenarios
Care of the Sick Newborn - Respiratory
Objective: Manage neonates with respiratory problems

**KNOWLEDGE**

- Normal mechanisms of breathing in the term and preterm infant
- Lung maturation in-utero and during infancy, including the maturation of the preterm lung gas exchange and diffusion within the lung
- Lung mechanics in health and disease
- Respiratory diseases affecting neonates
- Radiological appearances of the conditions which cause neonatal respiratory disease
- Apnoea of prematurity
- Conditions which may cause airway obstruction
- Indications and limitations of oxygen therapy
- Role of sleep studies
- Respiratory support, including continuous positive airway pressure (CPAP), conventional ventilation and high frequency ventilation
- Acute complications of respiratory support e.g. pneumothorax, displaced or obstructed endotracheal tube
- Mechanisms and management of prevention of chronic lung disease of the newborn
- Home oxygen therapy
- Pulmonary hypertension

**SKILLS**

- Examine and assess a neonate with respiratory distress
- Provide respiratory support to a range of neonatal respiratory condition
- Administer surfactant
- Manage neonates requiring nitric oxide therapy and iNO
- Use range of modalities that provide respiratory support
- Use blood gases and non-invasive monitoring to manage ventilation and oxygenation
- Interpret lung mechanics
- Investigate and manage the neonate with apnoea
- Manage the neonatal airway
- Insert chest drains
- Assess and manage neonatal chronic lung disease
- Manage an infant on home oxygen
- Counsel parents and family of a baby with chronic respiratory problems
- Co-ordinate home based care with community services
ASSESSMENT & LEARNING METHODS

- Neonate experience
- Mini-CEX
- CBD
- DOPS:
  - Emergency thoracenthesis
  - Nasopharyngeal airway
  - Airway suction
  - Positive pressure ventilation (mask)
  - Endotracheal intubation
  - Surfactant administration
  - Endotracheal intubation PREM
  - Mechanical ventilation
  - HFOV
  - iNO
  - Umbilical arterial line
  - Venous line
  - Peripheral arterial and venous catheter
  - Blood sampling (peripheral, capillary and central line)
- Study day - Respiratory: respiratory physiology of the term and preterm infant and management of the causes of respiratory failure in the neonate, including respiratory support.
Care of the Sick Newborn - Circulatory

Objective: Manage neonates with circulatory problems

**KNOWLEDGE**

- Normal physiology and development of the circulation in the neonate
- Tissue oxygenation and gas transport
- Pathophysiology
- Causes, presentation and management of cardiac failure in the newborn
- Patent ductus arteriosus in the preterm neonate
- Abnormal blood pressure and cardiac output in the neonate
- Arrhythmias of the neonate
- Acquired cardiac conditions
- Cardiac imaging in the neonate
- Electrocardiography in the neonate
- Familiarity with the standard echocardiographic views of the neonate
- Embryology, physiology and anatomy of congenital cardiovascular disease
- Surgical options for the treatment of congenital heart disease
- Role of extracorporeal membrane oxygenation (ECMO)
- Indication for referral for cardiology

**SKILLS**

- Assess clinically (focused history and examination of) the neonatal cardiovascular system
- Assess the adequacy of the neonatal circulation
- Assess and manage a patent ductus arteriosus in the preterm neonate
- Manage hypotension and hypertension
- Assess and manage the common arrhythmias of the newborn
- Assess and manage of infants with possible heart disease
- Perform and interpret the results of cardiac imaging in the neonate, including bedside echocardiography for functional purposes (desirable but not mandatory)
- Perform and interpret a neonatal electrocardiograph
- Manage the following in neonates:
  - abnormal blood pressure and cardiac output in the neonate
  - acquired cardiac conditions
  - arrhythmias of the neonate
  - cardiac failure
  - cyanotic heart disease
  - patent ductus arteriosus in the preterm neonate
- Counsel parents of babies with congenital or acquired cardiovascular disease

**ASSESSMENT & LEARNING METHODS**

1. Study day - Cardiovascular: cardiovascular physiology and pathology of the term and preterm infant including diagnosis and management of cardiovascular conditions
   - ECG interpretation
   - DOPS – (are all desirable?):
     - Pericardiocentesis
     - Functional echocardiography
     - Umbilical arterial line
     - Venous line
     - Peripheral arterial and venous catheter
Care of the Sick Newborn – Neurological and Neuromuscular

Objective: Manage neonates with neurological and neuromuscular problems

**KNOWLEDGE**

- Normal physiology and development of the nervous system in the neonate
- Impact of preterm delivery on the developing brain and common management strategies e.g. mechanical ventilation
- Pathophysiology and prognosis of neonatal neurological conditions
- Malformations of the brain and spinal cord
- Malformations/deformation of the skeletal system
- Pathophysiology and prognosis of:
  - hypotonia and neuromuscular disorders
  - neonatal encephalopathy
  - neonatal stroke
  - periventricular haemorrhage
  - seizure disorders
  - white matter injury
- Modalities of:
  - electrophysiological studies
  - neuro imaging
  - neuromuscular studies
- Use of neuro-protective treatments, e.g. cooling
- Indications for neurosurgical interventions
- Techniques for neurological and developmental assessment of infants

**SKILLS**

- Manage:
  - hypotonia
  - neonatal encephalopathy
  - neonatal stroke
  - periventricular haemorrhage
  - seizure disorders
  - white matter injury
- Perform a structured neonatal neurological history and examination which is appropriate for age and gestation
- Adopt structured approach to the investigation and interpretation of neonatal neurological conditions, for example encephalopathy, seizures, hypotonia
- Assess and manage infants with neural tube defect and/or hydrocephalus
- Assess and diagnose infants with talipes and congenital dysplastic hip
- Assess an infant for mild, moderate and severe problems of neurodevelopment
- Interpret bedside aEEG recordings (cerebral function monitoring/amplitude integrated EEG)
- Perform and interpret a bedside cerebral ultrasound examination (desirable but not mandatory)
- Perform lumbar punctures and be familiar with techniques of ventricular drainage
- Counsel parents regarding long term implications of neurologic injury or abnormality
- Integrate follow-up and multidisciplinary involvement in babies with neurologic injury or abnormality
ASSESSMENT & LEARNING METHODS

- ICU neonatal experience
- CBD
- DOPS:
  - Lumbar puncture
  - Drainage CSF reservoir
  - Cranial USS (desirable)
- Study day - Neurology: Physiology of the term and preterm nervous system including diagnosis and management of congenital and acquired neurological problems.
Care of the Sick Newborn - Haematological

Objective: Manage neonates with haematological problems

**KNOWLEDGE**

- Prevention, diagnosis and management of neonatal anaemia
- Pathophysiology of neonatal bleeding and thrombotic disorders including:
  - disseminated intravascular coagulation (DIC)
  - haemorrhagic disease of the newborn
  - neonatal stroke
  - thrombocytopenia
  - vascular malformations
- Pathophysiology and management of neonatal haemolytic diseases, immune and non-immune
- Indications for and risks of exchange transfusion
- Presentation of:
  - disorders of immune function
  - genetic conditions associated with malignancy
- Neonatal tumours and malignancies

**SKILLS**

- Practice safe and effective use of blood products, and haematinic agents
- Recognise and address parental concerns about the use of blood products
- Recognise and address ethical, safety and resource issues in the use of blood products
- Investigate and manage coagulopathies, thrombocytopenia, anaemias, and isoimmune Haemolytic disease
- Perform an exchange transfusion
- Investigate and treat (in consultation with appropriate subspecialist):
  - disorders of immune function
  - genetic conditions associated with malignancy
  - neonatal tumours and malignancies
- Counsel parents about above conditions
- Counsel parents about Vitamin K prophylaxis

**ASSESSMENT & LEARNING METHODS**

- Ethics safe prescribing
- Blood transfusion
- DOPS – safe prescribing and transfusing
- Study day - Haematology: haematology of the term and preterm infant, including transfusion, haemostasis and haematological responses to pathology and infection. Inflammation in the neonate.
Care of the Sick Newborn – Metabolic and Endocrine

Objective: Manage neonates with metabolic and endocrine problems

**KNOWLEDGE**

- Normal antenatal development of the endocrine axes and postnatal adaptation, including the impact of preterm birth
- Pathophysiology and prevention of hypoglycaemia/hyperglycaemia
- Pathophysiology of important endocrine and metabolic disorders of the newborn, including:
  - adrenal insufficiency
  - ambiguous genitalia
  - thyroid disorders
- Pathophysiology of inborn errors of metabolism
- Pathophysiology of metabolic disturbances, including electrolyte abnormalities

**SKILLS**

- Interpret endocrine investigations
- Screen for, investigate and manage hypoglycaemia/hyperglycaemia
- Plan investigation and management of endocrine and metabolic disorders
- Diagnose inborn errors of metabolism, including subspecialty consultation
- Recognise and institute emergency treatment for inborn errors of metabolism
- Prevent, investigate and manage electrolyte and acid base disturbances
- Counsel family on long-term adverse outcomes

**ASSESSMENT & LEARNING METHODS**

- CBD
- Study day - Endocrine & Metabolic Study day including clinical biochemistry, endocrinology in the term and preterm infant and investigation and management of hypoglycaemia and inborn errors of metabolism in the neonate.
Care of the Sick Newborn - Renal
Objective: Manage neonates with renal problems

**KNOWLEDGE**
- Renal development and physiological changes after birth in preterm and term neonates
- Pathophysiology of congenital renal disorders
  Modalities of:
  - renal function assessment (biochemical, imaging – e.g. nuclide scans)
  - renal tract imaging (ultrasound, CT and MRI, including flow studies)
- Pathophysiology of renal failure, both acute and chronic
- Effects of renal impairment on drug metabolism
- Indications for urological intervention

**SKILLS**
- Manage complex fluid and electrolyte problems, including those in very preterm babies and those with surgical problems
- Manage and investigate antenatally and postnatally diagnosed renal disorders
- Recognise and institute treatment for acute and chronic renal failure, including indications for dialysis
- Perform urethral catheterisation and suprapubic aspiration
- Perform and interpret a bedside renal ultrasound (desirable but not mandatory)
- Contribute to development of strategies and staff education to optimize fluid and electrolyte management in at risk babies
- Counsel parents regarding implications of congenital and acquired renal abnormalities

**ASSESSMENT & LEARNING METHODS**
- DOPS:
  - Urinary catheterisation
  - Suprapubic aspirate
- Study day - Renal: renal physiology of the term and preterm infant, renal pathologies and fluid management in health and disease
- Clinical experience
Care of the Sick Newborn – Nutrition and Metabolism
Objective: Manage neonatal nutrition and metabolism

**KNOWLEDGE**

- Knowledge of normal lactation process, problems that can arise and management strategies to support problematic lactation
- Normal nutritional requirements, growth and organ maturation of the fetus and newborn
- Feeding of sick and preterm infants, including:
  - breast feeding
  - expressed breast milk
  - special formulas
  - supplements, fortifiers, vitamins and haematinics
- Principles of parenteral nutrition including:
  - indications for use
  - mineral and vitamin requirements
  - nutritional components
  - trace elements
- Methods of delivering parenteral nutrition
- Importance of thermo-regulation and close fluid and electrolyte monitoring in the sick and preterm neonate

**SKILLS**

- Manage consequences of abnormal thermo-regulation, energy and water balance in the sick and preterm neonate
- Assess and investigate poor growth and nutrition
- Anticipate and prevent nutritional deficiencies, including osteopenia of prematurity and failure to thrive
- Prescribe and manage parenteral nutrition in sick and preterm infants
- Insert and position percutaneous long lines safely and correctly
- Contribute to promotion of breast feeding throughout the hospital, including the neonatal unit
- Support mothers wishing to breastfeed sick and preterm babies, and acknowledge the psychological issues around those who are unable to breastfeed or who choose not to
- Counsel parents on benefits and potential complications of long line insertion and benefits and side effects of parenteral nutrition

**ASSESSMENT & LEARNING METHODS**

- Study day - Nutrition: enteral and parenteral nutrition – nutritional requirements in health and disease, breast feeding, and evidence-based indications for specialist formulae and supplements.
- DOPS:
  - Exchange transfusion
  - Nasogastric tube
  - Percutaneous central lines
  - Prescribe TPN (Total Parenteral Nutrition)
Care of the Sick Newborn – Gastrointestinal and Hepatobiliary

Objective: Manage neonates with gastrointestinal problems

**KNOWLEDGE**

- Normal development and functional maturation of gastrointestinal system, including gut hormones and motility
- Pathophysiology of necrotising enterocolitis
- Pathophysiology of congenital gastrointestinal anomalies and antenatal and postnatal diagnosis
- Pathophysiology of failure to thrive
- Applications of gut imaging modalities, including:
  - contrast studies
  - CT, MRI
  - nucleotide scans
  - ultrasound
- Normal development of hepatobiliary system, including bilirubin and bile acid metabolism
- Pathophysiology of physiological and non-physiological jaundice
- Pathophysiology of hepatobiliary and pancreatic disease, including:
  - biliary atresia
  - cholestatic jaundice
  - cystic fibrosis
  - neonatal hepatitis

**SKILLS**

- Diagnose and manage necrotising enterocolitis, including pre and post-operative care
- Manage congenital gastrointestinal disease, including pre and post-operative care
- Manage short gut syndrome
- Diagnose, investigate and manage malabsorption syndromes and nutritional deficiencies
- Request and interpret investigations for gastrointestinal tract (GIT) anomalies or suspected GIT disease
- Counsel parents regarding diagnosis, management and prognosis for congenital and acquired gut problems in the newborn
- Investigate and manage jaundice, including use of phototherapy
- Investigate and manage hepatobiliary disease
- Adopt a multidisciplinary approach to patient management (surgery or hepatobiliary/gastroenterology)
- Counsel parents regarding management of neonatal jaundice and other neonatal hepatobiliary disorders

**ASSESSMENT & LEARNING METHODS**

- DOPS:
  - Exchange transfusion
  - Nasogastric tube
  - Percutaneous central lines
  - Prescribe TPN (Total Parenteral Nutrition)
  - Paracentesis
- Study day - Gastrointestinal and Hepatobiliary including GI surgery, GI and hepatic physiology & pathologies of the term and preterm infant. Common GI malformations and management (medical and surgical).
Care of the Sick Newborn - Infections

Objective: Manage neonates with infections

**KNOWLEDGE**

- Bacterial, viral, fungal and protozoal infections, including:
  - choice and use of anti-microbial therapy
  - diagnostic tests
  - prevention
  - risk factors
- Pathophysiology of post-natal eye infection
- Pathophysiology of overwhelming sepsis in the neonate
- Principles of prevention and treatment of nosocomial infection

**SKILLS**

- Investigate and manage neonatal infections e.g. septicaemia, meningitis, urinary tract infection
- Perform a septic work up, including blood culture, suprapubic aspiration, and lumbar puncture
- Manage the neonate with overwhelming sepsis
- Investigate and manage neonatal viral infections e.g. Herpes simplex, neonatal varicella, CMV, HIV, hepatitis B and C
- Demonstrate a collaborative approach to developing protocols for prevention and management of Perinatal sepsis, hand washing and infection control measures in clinical practice
- Advocate and support infection control policies and practice in the neonatal unit

**ASSESSMENT & LEARNING METHODS**

- DOPS:
  - Blood culture
  - Suprapubic aspirate
  - Lumbar puncture
  - Hand washing
- Guideline development
- Study day - Infectious Disease: Congenital, perinatal and late infection in the neonate. Bacterial, viral and fungal infection - prevention, diagnosis, management and outcomes. Antimicrobial treatment and prophylaxis.
- Infection control at hospital induction
Care of the Sick Newborn - Pharmacology

Objective: Apply knowledge of pharmacology as it applies to the newborn

**KNOWLEDGE**

- Principles of pharmacology as applied to the preterm and term newborn
- Commonly used neonatal medications, including:
  - dose monitoring
  - drug interactions
  - indications for use
  - side effects
- Drug excretion in breast milk

**SKILLS**

- Write clear, legible and safe prescriptions for medications
- Educate parents about effects and side effects of prescribed medications
- Contribute to development of unit guidelines and staff education for appropriate and safe medication use
- Support parents in home administration of medications

**ASSESSMENT & LEARNING METHODS**

- Study day - Joint study day: Pharmacology & End of Life Care.
  a. Pharmacological considerations in the term and Preterm infant. Strategies to optimise prescribing in the NICU.
Care of the Sick Newborn - Dermatology
Objective: Manage neonates with dermatological problems

**KNOWLEDGE**

- Physiology of the skin in the preterm and term newborn
- Pathophysiology and differences between benign and pathological rashes in the newborn
- Characteristics and diagnosis of congenital and acquired infectious rashes and skin lesions in the newborn
- Pathophysiology and differences between haemangioma and other vascular malformations in the newborn

**SKILLS**

- Manage skin care in the newborn at all gestations
- Counsel parents in regards to aetiology, pathophysiology and management of skin lesions in the newborn
- Recognise severe and life-threatening congenital skin conditions e.g. epidermolysis bullosa, severe ichthyosis and management in consultation with dermatologists and other disciplines as indicated
- Treat infectious rashes in consultation with a dermatologist where necessary

**ASSESSMENT & LEARNING METHODS**

Care of the Sick Newborn - Ophthalmology

Objective: Manage neonates with ophthalmological abnormalities

**KNOWLEDGE**

- Pathophysiology and presentation of retinopathy of prematurity
- Indications for routine screening for retinopathy of prematurity
- Indications for treatment of retinopathy, methods of treatment and long-term outcome
- Congenital eye disorders and syndromes associated with eye disorders
- Infective eye disorders

**SKILLS**

- Liaise with ophthalmologist in development and implementation of comprehensive screening program for retinopathy of prematurity
- Counsel parents with regards to the aetiology and management of retinopathy of prematurity
- Screen for eye disorders on newborn examination

**ASSESSMENT & LEARNING METHODS**

Care of the Sick Newborn - ENT

Objective: Manage neonates with ear, nose and throat abnormalities

**KNOWLEDGE**

- Congenital abnormalities of the head and neck and associated syndromes
- Causes of congenital deafness syndromes and congenital malformations of the ear
- Techniques used for hearing screening in the newborn
- Embryology of cleft lip and palate and associated syndromes
- Congenital laryngeal abnormalities and stridor including laryngeal haemangioma
- Abnormalities of the neck e.g. cystic hygroma, vertebral anomalies, neck masses

**SKILLS**

- Coordinate involvement of audiologist, ear nose and throat surgeon, and where necessary, a plastic surgeon
- Counsel parents in regards to management and aetiology of congenital and acquired problems of the ear, nose and throat
- Recognise and manage of upper airway obstruction including indications for tracheostomy, use of naso pharyngeal airway or jaw distraction
- Manage feeding problems associated with cleft palate and Pierre-Robin syndrome

**ASSESSMENT & LEARNING METHODS**

- **DOPS:**
  - Nasopharyngeal airway
Care of the Sick Newborn – Integrated Care
Objective: Integrated care of the sick newborn

**KNOWLEDGE**

- Multisystem interactions in health and disease
- Impacts on families and appropriate supports
- Long-term implications of complications of care in the severely ill newborn

**SKILLS**

- Integrate care of the sick newborn considering multisystem interactions
- Arrange and oversee multidisciplinary supports
- Share information openly and honestly regarding diagnoses and outcomes

**ASSESSMENT & LEARNING METHODS**

- Communication course
- Chairing an MDT meeting
Procedural Skills
Objective: Perform the procedures required for care of the sick neonate

KNOWLEDGE

- Relevant anatomy and physiology indications, risks and complications
- Pharmacological and non-pharmacological

SKILLS

- Describe the relevant anatomy and physiology, indications for and risks of common neonatal procedures
- Insert and remove
  - Emergency thoracocentesis needle and intercostal drain
  - Nasogastric tube
  - Nasopharyngeal airway
  - Percutaneous central lines
  - Umbilical arterial and venous lines
  - Peripheral arterial catheter
  - Peripheral venous catheter
  - Urinary catheter
- Perform
  - Airway suction
  - Positive pressure ventilation (mask)
  - Endotracheal intubation (TERM)
  - Endotracheal intubation (PREM)
  - Mechanical Ventilation
  - HFOV
  - iNO
  - Blood sampling (peripheral, capillary and central line)
  - Blood culture
  - Lumbar puncture
  - Surfactant administration
  - Exchange transfusion
  - Thoracocentesis
  - Fetal medicine counselling
  - Antenatal counseling
  - Cranial USS
  - Prescribing TPN
  - Prescribing transfusion
- Perform and interpret functional echocardiography (desirable but not mandatory)
- Perform and interpret Suprapubic aspirate (desirable but not mandatory)
- Perform CSF drainage (desirable but not mandatory)
- Perform Paracentesis (desirable but not mandatory)
- Perform Pericardiocentesis (desirable but not mandatory)
- Manage complications of the above
- Communicate with parents regarding risks and benefits of the procedure, including appropriate consent
- Be aware of own limitations and appreciate when to ask for help
Manage End-of-Life Care

Objective: Manage end-of-life care

KNOWLEDGE

- Long term outcome of infants of borderline viability and infants with major medical problems
- Ethical issues:
  - Borderline viability (awareness of attitudes)
  - Congenital malformations
  - Discontinuation of life support measures
  - Non initiation of resuscitation
- Family (including sibling) emotional and behavioural issues
- Medico-legal issues
- Palliative care
- Role and importance of autopsy
- Role of cognitive, emotional, cultural and spiritual factors in end-of-life decisions
- Recognise the value of a multi-disciplinary approach to the family of a dying newborn
- Evidence based practice in the palliative management of infants with life limiting conditions

SKILLS

- Counsel parents in an emotionally and culturally appropriate fashion
- Manage infants and families requiring palliative care
- Request an autopsy
- Support and debrief health-care team
- Follow up family

ASSESSMENT & LEARNING METHODS

- Ethics for Paediatrics
- Study day - Joint study day: Pharmacology & End of Life Care.
  - Pharmacological considerations in the term and Preterm infant. Strategies to optimise prescribing in the NICU.
Neonatology HST  
Specialty Section

Long-term Health Care/Follow-up including Infant at Risk  
Objective: Assess and manage the infant at risk

**KNOWLEDGE**

- Issues relating to:  
  - chronic respiratory disease  
  - hearing disability  
  - long-term neuro-disability  
  - severe ROP and visual impairment  
  - short gut syndrome, malnutrition/poor growth and chronic feeding issues  
- Components of multidisciplinary team, including local medical officer and community services  
- Impact of chronic health issues on the patient and family  
- Impact of poly-pharmacy in chronic illnesses  
- Medico-legal and social issues around child protection  
- Issues relevant to post-natal depression  
- Effects of maternal drugs and drug withdrawal on the fetus and neonate  
- Developmental follow-up including infant at risk

**SKILLS**

- Identify and manage families at high psychosocial risk, including taking a full drug and alcohol history  
- Describe the effects of maternal prescription and non-prescription drugs on the newborn infant  
- Liaise with multidisciplinary teams and support services  
- Diagnose and manage neonatal abstinence syndrome and address child protection issues  
- Counsel parents/family  
- Co-ordinate follow-up of high risk infants and their families, including liaison with relevant community services  
- Demonstrate a collaborative approach within a multidisciplinary team  
- Identify strategies for the safe discharge and community support of families at high psychosocial risk  
- Perform a neurodevelopmental assessment  
- Assess/investigate poor growth and nutrition  
- Assess/investigate for hearing and visual impairment  
- Communicate, refer to and work with paramedical staff and multidisciplinary teams and community services  
- Counsel parents/family about the impact of long-term illness on the child and family  
- Coordinate follow-up of baby and family with multidisciplinary team  
- Demonstrate a collaborative approach within a multidisciplinary team

**ASSESSMENT & LEARNING METHODS**

- Child Protection Course  
- Study day - Neurodevelopment & the at risk infant  
  - Assessing neuro-developmental outcomes after term and preterm delivery. Methods of assessing and designing a follow-up program in the hospital and community.  
  - The “at-risk” infant: child protection in Neonatology.
Regional Organisation of Perinatal Care - Transport
Objective: Undertake safe transport of the sick newborn

**KNOWLEDGE**

- Maternal conditions requiring in-utero transfer
- Understand regional and national structure of perinatal services
- Neonatal conditions requiring transport
- Risks of fetal and neonatal transport
- Principles of stabilisation prior to transport
- Principles of management of a neonate during transport
- Physiology of transport by air
- Neonatal transport equipment
- Transfer of a sick infant with special conditions, for example surgical conditions

**SKILLS**

- Identify infrastructural and organisational issues relating to national neonatal transport
- Institute resuscitation and stabilisation of the sick infant in a non-critical care environment
- Discuss the factors affecting the type of transport undertaken in different clinical situations
- Advise referral centres and transport teams on issues relating to transport of sick or preterm infants
- Demonstrate ability to lead a transport team

**ASSESSMENT & LEARNING METHODS**

- STABLE course
- Time spent with the transport team
- Air Transport course
- Study day - Neonatal Transport & Service Provision: transport of the term and preterm normally formed infant and infant with congenital anomalies. Scenario and simulation based teaching. Structuring nationwide neonatal care.
- CBD on transport
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.
  - Required - Must be completed for training to be deemed complete
  - Desirable - considered beneficial for training but training may be considered complete without this experience or skill
- Mandatory course requirements completed during General Paediatrics training can be carried forward

<table>
<thead>
<tr>
<th>Curriculum Requirement</th>
<th>Required/Desirable</th>
<th>Minimum Requirement</th>
<th>Reporting Period</th>
<th>Form Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section 1 - Training Plan</strong></td>
<td></td>
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<tr>
<td>Personal Goals Plan (Copy of agreed Training Plan for your current training year signed by both Trainee &amp; Trainer)</td>
<td>Required</td>
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<td>Training Post</td>
<td>Form 052</td>
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<tr>
<td>Weekly Timetable (Sample Weekly Timetable for Post/Clinical Attachment)</td>
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<td>On Call Rota</td>
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<td><strong>Section 2 - Training Activities</strong></td>
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<tr>
<td>Outpatient Clinics</td>
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<td>Training Programme</td>
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<tr>
<td>Fetal Medicine Clinics</td>
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<td>Training Programme</td>
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<td><strong>Ward Rounds/Consultations</strong></td>
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<tr>
<td>Consultant led (3 per week)</td>
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<td>Year of Training</td>
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<tr>
<td>SpR led including handover (1 per week)</td>
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<td>Year of Training</td>
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<tr>
<td>Antenatal counseling</td>
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<td>Year of Training</td>
<td>Form 002</td>
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<tr>
<td><strong>Emergencies/Complicated Cases</strong></td>
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<td>Training Programme</td>
<td>Form 003</td>
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<tr>
<td><strong>Procedures/Practical Skills/Surgical Skills</strong></td>
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<td>Emergency thoracocentesis needle and intercostals drain</td>
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<td>Year of Training</td>
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<tr>
<td>Nasogastric tube</td>
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<td>Year of Training</td>
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<td>Nasopharyngeal airway</td>
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<td>Year of Training</td>
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<td>Percutaneous central lines</td>
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<td>Year of Training</td>
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<tr>
<td>Umbilical arterial and venous lines</td>
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<tr>
<td>Peripheral arterial catheter</td>
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<tr>
<td>Peripheral venous catheter</td>
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<td>Urinary catheter</td>
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## Minimum Requirements for Training

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<th>Curriculum Requirement</th>
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<th>Minimum Requirement</th>
<th>Reporting Period</th>
<th>Form Name</th>
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<tr>
<td>Airway suction</td>
<td>Required</td>
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<td>Positive pressure ventilation (mask)</td>
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<td>Year of Training</td>
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<tr>
<td>Endotracheal intubation TERM</td>
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<td>Year of Training</td>
<td>Form 004</td>
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<tr>
<td>Endotracheal intubation PREM</td>
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<td>Year of Training</td>
<td>Form 004</td>
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<tr>
<td>Mechanical Ventilation</td>
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<td>Year of Training</td>
<td>Form 004</td>
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<tr>
<td>HFOV</td>
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<td>Blood sampling (peripheral, capillary, arterial and central line)</td>
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<td>Year of Training</td>
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<tr>
<td>Blood culture</td>
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<td>Suprapubic aspirate</td>
<td>Desirable</td>
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<td>Year of Training</td>
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<tr>
<td>Lumbar puncture</td>
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<tr>
<td>Drainage CSF reservoir</td>
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<tr>
<td>Paracentesis</td>
<td>Desirable</td>
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<tr>
<td>Surfactant administration</td>
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<td>Year of Training</td>
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<tr>
<td>Exchange transfusion</td>
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<tr>
<td>Pericardiocentesis</td>
<td>Desirable</td>
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<td>Form 004</td>
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<tr>
<td>Functional echocardiography</td>
<td>Desirable</td>
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<tr>
<td>Additional/Special Experience Gained (sub-specialty experience)</td>
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<td>Informing families of their child’s disability (online)</td>
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**Section 3 - Educational Activities**

**Mandatory Courses**

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<td>NRP Neonatal Resuscitation Course</td>
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<td>STABLE</td>
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<td>Wellness Matters</td>
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<td><strong>Study days (attend minimum of 6 per year)</strong></td>
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<td>Grand Rounds</td>
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<td>Journal Clubs</td>
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<td>Radiology conferences</td>
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<td>MDT meetings</td>
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<td>Seminar</td>
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<td>Lecture</td>
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<td>Year of Training</td>
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<td><strong>Examinations (Discussing developing Irish specialty exam including a clinical component)</strong></td>
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<td>Tutorial</td>
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<td>Bedside teaching</td>
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<td><strong>Research</strong></td>
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<td><strong>Audit activities and Reporting</strong></td>
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<td>(1 audit per year to either start or complete, Quality Improvement (QI) projects can be uploaded against audit)</td>
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<td>(minimum of 1 oral or poster presentation per year)</td>
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<td><strong>National/International meetings</strong></td>
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<td>(minimum attend 1 per year)</td>
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<td><strong>Involvement in neonatal guideline development</strong></td>
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<td>Emergency thoracocentesis needle and intercostal drain</td>
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