



**IRISH COMMITTEE  
ON HIGHER  
MEDICAL TRAINING**

ROYAL COLLEGE OF  
PHYSICIANS OF IRELAND

BASIC SPECIALIST TRAINING IN

# GENERAL INTERNAL MEDICINE



**This curriculum of training in GIM was developed in 2016 and undergoes an annual review by Prof John McDermot, National Specialty Directors, Dr. Ann O’Shaughnessy, Head of Education, Innovation & Research and by the GIM Training Committee. The curriculum is approved by the ICHMT.**

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## Table of Contents

<b>INTRODUCTION .....</b>	<b>5</b>
OVERVIEW OF CURRICULUM .....	6
BASIC SPECIALIST TRAINING: REQUIREMENTS AND POLICIES .....	7
OVERVIEW OF BASIC SPECIALIST TRAINING IN GENERAL INTERNAL MEDICINE .....	7
ENTRY REQUIREMENTS .....	7
TRAINING ENVIRONMENT .....	8
ACCEPTANCE AND REJECTION OF OFFERS .....	8
POINT OF ENTRY TO THE PROGRAMME AND COMPLETION DATES.....	8
TRAINING CREDIT OUTSIDE THE STRUCTURED BST PROGRAMME .....	9
LEAVE FROM THE BST PROGRAMME .....	10
TRANSFER BETWEEN HUBS .....	11
WITHDRAWAL FROM THE BST PROGRAMME .....	12
SUPERVISING TRAINERS.....	13
BST ePORTFOLIO.....	14
THE MRCPI EXAMINATION .....	15
CERTIFICATE OF COMPLETION .....	16
<b>GENERIC COMPONENTS.....</b>	<b>17</b>
STANDARDS OF CARE.....	18
DEALING WITH & MANAGING ACUTELY ILL PATIENTS IN APPROPRIATE SPECIALTIES.....	20
GOOD PROFESSIONAL PRACTICE .....	22
INFECTION CONTROL .....	24
THERAPEUTICS AND SAFE PRESCRIBING .....	25
SELF-CARE AND MAINTAINING WELL-BEING.....	26
COMMUNICATION IN CLINICAL SETTINGS.....	28
LEADERSHIP .....	30
QUALITY IMPROVEMENT .....	31
SCHOLARSHIP.....	32
MANAGEMENT .....	33
<b>SPECIALTY SECTION .....</b>	<b>34</b>
BASIC KNOWLEDGE REQUIREMENTS .....	35
PROCEDURAL SKILLS .....	37
CLINICAL SKILLS AND INVESTIGATIONS.....	38
ACUTE MEDICINE .....	40
CARDIOLOGY AND THE CARDIOVASCULAR SYSTEM.....	41
CLINICAL IMMUNOLOGY.....	43
CLINICAL PHARMACOLOGY AND THERAPEUTICS .....	45
DERMATOLOGY .....	47
ENDOCRINOLOGY AND DIABETES .....	48
GASTROENTEROLOGY AND HEPATOLOGY.....	50
GENITO-URINARY MEDICINE .....	52
GERIATRIC MEDICINE .....	54
HAEMATOLOGY.....	56
INFECTIOUS DISEASES .....	58
INTENSIVE CARE .....	60
MEDICAL ONCOLOGY .....	61
NEUROLOGY.....	63
OCCUPATIONAL MEDICINE .....	65
PALLIATIVE MEDICINE.....	66
PHYSICAL SYMPTOMS IN ABSENCE OF ORGANIC DISEASE .....	68
PSYCHIATRY.....	69
REHABILITATION MEDICINE .....	70
RENAL MEDICINE.....	72

RESPIRATORY MEDICINE .....	74
RHEUMATOLOGY .....	76
<b>DOCUMENTATION OF MINIMUM REQUIREMENTS FOR TRAINING .....</b>	<b>78</b>

## Introduction

This curriculum outlines The Royal College of Physicians of Ireland's approach to accreditation and certification of Basic Specialist Training (BST) in General Internal Medicine.

Completion of BST is an essential step for a career in Internal Medicine and its associated specialties. BST also provides a solid foundation for further training in many other fields of Medicine – for instance Pathology, Public Health Medicine, Occupational Medicine, Radiology, General Practice and Anaesthesia.

This curriculum is aimed at Senior House Officers (SHOs) in training and their supervising trainers. It outlines the knowledge, skills and professional attributes that should be attained and developed during BST. This Curriculum and the Membership to the Royal College of Physicians Ireland (MRCPI) examination syllabus are aligned and this curriculum may be used as a study aid when preparing for these examinations.

BST has a number of key elements:

1. Clinical experience gained from direct patient care, supervised by senior clinicians and based on a clinical curriculum
2. Experience of professional and ethical practice through mentorship by senior clinicians and supported by RCPI's mandatory courses.
3. An academic programme of journal clubs, grand rounds, SHO tutorials provided in training hospitals
4. Formal assessment of the knowledge and skills gained by each trainee during their clinical experience. This assessment takes place in the form of structured and workplace assessments, regular review with trainer and training leads, and the mandatory MRCPI examination

This core curriculum has been updated to ensure that these elements are completed to the satisfaction of RCPI. Accreditation and certification will focus on evaluation of their progress, via a yearly ePortfolio and a mandatory annual review, which will ensure that the necessary competencies are being achieved.

RCPI recognises that not all trainees will have the same exposure to specialities and therefore their training experience will differ. As a result, the topics and practical skills obtained during BST will reflect the individual's rotation scheme.

Dr John McDermott, Associate Dean, Basic Specialist Training

### Overview of Curriculum

This curriculum outlines the educational content of the two-year (BST) Programme. The BST programme follows the educational principles of a 'spiral curriculum'. Learning builds on previous experiences and is linked to future skills obtained in Higher Specialist Training (HST).

The curriculum is laid out in four sections:

- The first section covers the rules and policies governing the BST programme. Trainees should note these policies carefully, especially ones regarding leave, overseas training credit and how to apply for a certificate of completion of BST.
- The second section, Teaching, Learning and Assessment Methods, describes the different methods of assessing trainees' progress through the BST programme. It is important that trainees understand the role of the BST ePortfolio and are familiar with the methods of assessment they will encounter on the BST programme.
- The third section lists the generic skills (e.g. communication skills) that are applicable to trainees on BST programmes in every specialty.
- The fourth section is specialty-specific and lists the knowledge and skills that should be acquired in each specialty/subspecialty, as well as the relevant assessment and learning methods.

While this document sets out the curriculum for BST and lists the core knowledge, skills and attitudes required at the end of the BST Programme, this list is not exclusive and there will be many opportunities within the programme for trainees to acquire additional knowledge and skills over and above the core content defined here. Self-directed learning is an important part of professional training and indeed a life-long commitment to self-directed learning is a vital part of modern medical practice.

At the end of the second year, trainees who have completed BST successfully (including passing the MRCPI exam) should be competent to enter a Higher Specialist Training programme.

This curriculum is also the syllabus for the MRCPI examinations and may be used as a study aid when preparing for these examinations.

## Basic Specialist Training: Requirements and Policies

### Overview of Basic Specialist Training in General Internal Medicine

BST consists of two years of training in approved Senior House Officer posts. Senior House Officer (SHO) grade is the initial training grade after Internship, and for most doctors the minimum period spent in this grade will be two years.

BST in General Internal Medicine is regulated and certified by RCPI and completion of this period of training has been a mandatory requirement for entry into most, but not all, RCPI-accredited Higher Specialist Training Programmes (Specialist Registrar training) since 1999.

BST must be done in two year rotation schemes that have been approved for training by RCPI.

BST General Internal Medicine trainees must pass the MRCPI examination in order to qualify for a certificate of completion of BST.

Although there are certain requirements that must be met for BST, as a stage of training it is not completely pre-defined as not all doctors will have decided on a career path by the time they enter their first SHO post. The majority of doctors will, at the end of their BST, want to enter specialties within Internal Medicine; however, General Practice, Radiology, Anaesthesia, Occupational Health Medicine, Public Health Medicine, Pathology, etc. may be the objectives of others. Besides the acquisition of specific clinical skills and competencies, it is emphasised that personal development - including leadership and team working, communication and presentation skills, basic management and audit are important core components of BST and all other phases of training.

Important regulations and procedures relating to the BST programme are listed below.

Applications for Certificates of Completion should be submitted within six months after completion date.

### Entry Requirements

To be eligible for entry to Basic Specialist Training,

- You must have completed your internship by July of the entry year
- You must be eligible for inclusion on the Trainee Specialist Division of the Medical Council's register at the time you apply.
- You must have proof of competency in the English language in line with HSE Specifications.

## Training Environment

All rotations must meet the criteria outlined in this curriculum and all rotations require the approval of RCPI. Regular evaluation of all rotations by RCPI is the basis for monitoring training. All posts will be expected to conform to statutory guidelines on hours and conditions of work for doctors in training.

BST Site Visits include review of rotations with the Regional Programme Directors, assurance of the academic training environment and feedback from trainers & trainees.

### **Criteria for approval of a BST rotation:**

1. Each trainee must rotate through three out of the five core specialties listed:
  - a. Cardiology
  - b. Respiratory
  - c. Geriatric Medicine
  - d. Endocrinology
  - e. Gastroenterology
2. Each post is 3 months in duration and the BST programme is 24 months in total
3. A full rotation must include:
  - a. A minimum of 6 months spent outside of the metropolitan area
  - b. Time in a level 4 hospital and a level 3 or 2 hospital
4. Each trainee must spend a minimum of 12 months on-call (acute unselected take)
5. Each trainee must have an assigned trainer.
6. Each trainee should spend no more than 6 months in one specialty
7. A core academic programme must be in place at each training site. This may include journal clubs, case based small group teaching, grand rounds and MDT meetings

### **Acceptance and Rejection of Offers (Before entry to the BST programme)**

**If a trainee accepts an offer:** The trainee is confirming that they are available to enter their allocated rotation on the specified start date (unless otherwise agreed with the regional director and Associate Director of BST).

### **Point of Entry to the Programme and Completion Dates**

**Point of entry:** Entry to the BST Programme is once a year, in July  
Completion dates may change under the following circumstances:

- If a trainee takes special leave in excess of 4 weeks over two years, and is required to complete a further period of training
- If a trainee has not reached the required standard and is required to undertake additional training.
- If a trainee has not fulfilled the curriculum requirements for BST certification and is required to undertake additional training or attend outstanding mandatory courses

If a trainee's completion date is changed for any reason, the trainee and regional programme director will be informed in writing by the BST coordinator in the Medical Training Team, RCPI.

## **Training Credit outside the structured BST programme**

### **Reciprocity of Basic Specialist Training programmes in Ireland**

- Consideration will be taken on a case by case basis for those trainees who wish to transfer from other postgraduate training programmes recognised by Irish postgraduate training bodies in the Irish Health Care System – general practice, surgery, anaesthesia and emergency medicine.
- In these cases applicants who have successfully completed 2 years BST in general practice, surgery, anaesthesia or emergency medicine may enter BST General Internal Medicine at year 2 (*i.e. be given the equivalent of 12 months credit*) under the provision that the training completed is relevant and corresponds with the BST General Internal Medicine Curriculum.

### **Equivalence of Basic Specialist Training – programme undertaken outside Ireland**

- Consideration will be taken on a case by case basis for equivalence of Basic Specialist Training for programmes undertaken outside of Ireland
- Applicants seeking to gain equivalence of training/experience for entry to BST will only be recognised if the training which is being considered has been successfully completed and provided through a structured programme formally recognised by a national training body in one of the jurisdictions in Schedule I. In determining the amount of credit to be awarded regard will be given to the clinical attachments, courses etc completed.
- A minimum of 12 months and a maximum of 24 months overseas equivalence may only be considered.

### **Retrospective Recognition**

- General Internal Medicine does not recognise any retrospective recognition for standalone posts held in Ireland, i.e. posts undertaken at SHO and/or Registrar level while not registered on an accredited Basic Specialist Training programme.

### **Acting Up to Registrar posts during the Basic Specialist Training programme**

- Trainees cannot 'Act-up' into Registrar posts during the 2 year BST programme
- All BST training must take place in SHO placements.
- Training credit for BST will not be awarded for time spent in Registrar posts.

### **\*Schedule I**

- UK –Programmes Approved by The Royal College of Physicians
- Australia and New Zealand –Programmes Approved by The Royal Australasian College of Physicians
- US – ACGME Approved Residency Programmes
- Canada –Programmes Approved by The Royal College of Physicians and Surgeons of Canada
- OMAN – Fellowship programme of the OMAN Medical Specialist Board OMSB

## Leave from the BST Programme

***Study leave and annual leave do not affect BST completion dates.***

### **Taking time out of the BST programme**

***Once you commence Basic Specialist Training, you must complete your training in a consecutive 2 year block except in exceptional circumstances. Details on special leave and how it may affect your completion date are outlined below.***

### **Special Leave (Other than study and annual leave):**

Examples of special leave: Sick leave, maternity leave, compassionate leave, Force Majeure Leave

As the BST programme consists of two years of intensive, supervised clinical training, any significant period of leave (i.e. greater than 4 weeks) taken over the course of the programme has the potential to affect the trainee's opportunities to acquire the core skills and knowledge required for satisfactory completion of the programme.

In cases where additional leave (including maternity leave) is agreed by the trainee's employer, the following conditions apply to all trainees:

**≤ 4 weeks over two years:** If a trainee takes special leave totalling 4 weeks or less over two years, his/her BST completion date is not affected.

**> 4 weeks over two years:** Any leave of greater than 4 weeks must be made up in blocks of 6 months' extra training.

**≤ 7 months:** 6 months of training in (an) approved post(s) must be completed in order to meet the requirements for BST certification. This applies to all trainees who take special leave totalling more than 4 weeks and less than or equal to 7 months over two years.

**> 7 months:** 12 months of training in (an) approved post(s) must be completed in order to meet the requirements for BST certification. This applies to all trainees who take special leave totalling more than 7 months and less than or equal to 13 months over two years.

**> 13 months:** 18 months of training in approved posts must be completed in order to meet the requirements for BST certification.

**If an extra 6, 12 or 18 months is required:** In cases where, due to leave in excess of 4 weeks, a trainee is required to complete a further period of training, the College will help to place the trainee in (a) suitable, approved training post(s).

The post(s) will be approved for BST in the trainee's specialty and will be counted towards the clinical training required for certification. However, please note the following:

- RCPI cannot guarantee a post(s) in the trainee's current hospital or region
- The trainee may need to wait until a suitable post becomes available.
- It may be necessary to complete a minimum of one year in a structured rotation if no suitable, stand-alone six-month post can be found

### Transfer between Hubs

Where possible, rotation transfers will be approved to accommodate Trainees who have had an unforeseen and significant change in their personal circumstances since the start of their training programme, for example:

- Disability or ill health
- Responsibility for caring for ill/disabled partner, relative or other dependent
- Responsibility for caring for school age children

Transfers between rotation programmes in General Internal Medicine must be approved by your Programme Director and the Programme Director of the rotation programme to which you want to transfer.

The overall combination of the trainee's first and subsequent rotation schemes must meet the requirements for BST certification.

Steps for transferring between hubs in the same speciality:

1. The trainee should approach the regional director of the hub to which he/she would like to transfer, to discuss whether a transfer is possible.
2. If the regional director agrees in principle to a transfer, the trainee should meet with his/her current regional director to discuss the possibility of transferring to the other hub.
3. If the trainee's current programme director agrees to the transfer, both regional directors must agree formally to the transfer in writing, sending a copy to the BST office. This notification should include the agreed transfer date and a list of all posts affected by the trainee's move. The director of the Hub being vacated should include a proposal for replacing the trainee who is leaving.
4. Medical Manpower in the relevant hospitals must agree to the transfer.
5. The trainee must notify the Associate Director of BST of his/her intention to transfer in writing
6. The Associate Director of BST will inform the trainee if his/her combined rotation schemes will meet the requirements for BST certification.
7. The BST office will update the trainee's record accordingly.

### Application Process

1. You must complete a Post Reassignment form and submit it to RCPI. You should contact your coordinator for more information on this
2. Applications made under the reassignment policy must be received prospectively, no later than three months before the rotation is due to commence
3. You may be required to provide documentation and evidence to support your application

**Withdrawal from the BST Programme**  
*(Withdrawal after commencing BST programme)*

**Trainees who withdraw from a programme will not receive credit for time spent in the programme unless they are transferring to another programme in line with the requirements as set out in “Transfer between Hubs”**

**Informing the College:** If a trainee wishes to leave the programme before their expected BST completion date, they must notify the BST office in writing at least four weeks before they wish to leave their current post. Emailed notifications will be accepted. The trainee is not required to outline his/her reasons for leaving the programme, however providing an explanation will assist future planning and development.

**Informing the regional programme director:** The trainee must inform his/her regional director of their intention to leave the programme as a matter of priority. This may be done in person, in writing or by telephone. Leaving the programme without giving reasonable notice or explanation to the regional director is not acceptable behaviour.

**Informing the employer:** Notice of resignation by the trainee as an employee of his/her hospital must be given in accordance with the provisions of his/her contract of employment.

**Leave of absence:** If a trainee wishes to take leave of absence, retain credit and return to the BST programme, this must be agreed with the Regional Programme Director, Associate Director of BST, and the BST office. The trainee should seek prospective approval of their leave of absence at least 4 weeks in advance. Approval will be agreed on a case by case basis and credit may not be retained in all cases.

**Supervising Trainers**

Every BST post has one assigned supervising trainer, whose duties include:

- Meeting with the trainee in their first week in the post and agreeing the trainee's Personal Goals Plan
- Appraising the trainees' progress at regular intervals during the post.
- Completing the Form 092 - End of Post Assessment Form in ePortfolio at the end of the post.
- Supporting the trainee, both personally and in respect of obtaining career advice, although others may be involved in this.
- Trainers may work in teams with general consultants however only one of these will be the designated supervising consultant for mentoring and ePortfolio purposes.

**BST ePortfolio**

Trainees are required to keep a BST ePortfolio as a record of their progress through BST and to ensure that their training is valid and appropriate.

The BST ePortfolio should be kept up to date throughout the year. It is designed to record progress through the programme, in particular whether trainees have satisfactorily completed all requirements for training.

The BST ePortfolio is evidence of satisfactory completion of training and is therefore required for the issue of a BST Certificate of Completion.

The ePortfolio contains all relevant forms for recording information about each aspect of BST.

## The MRCPI Examination

The knowledge sections in this curriculum make up the official syllabus for the MRCPI Part I and II exams.

In order to qualify for a BST certificate of completion in General Internal Medicine you will be required to pass the MRCPI examination. You are required to complete the MRCPI within the two years of the BST programme, and there is ample opportunity to complete the MRCPI within 2 years of training as outlined below.

### Each trainee should attempt Part I and Part II in Year 1

- **September, January, April**  
Opportunities - SHO can attempt Membership Part I (x3)
- **March, July**  
Opportunities - Successful SHO can attempt Membership Part II (x2)
- **February, June**  
Opportunities - Successful SHO can attempt Part II Clinical (x2)

### Each trainee should attempt Part II Clinical in Year 2

- **October, March**  
Opportunities - SHO can attempt Membership Part II (x2)
- **February, June**  
Opportunities - Successful SHO in October can attempt Part II Clinical (x2)

*\*Please visit the RCPI website [www.rcpi.ie](http://www.rcpi.ie) for details on MRCPI examination dates*

However, if you have not passed the MRCPI examination by the end of your two years on the BST programme, you will have a further two years in which to pass all remaining parts of the MRCPI examination. On successfully passing the final MRCPI examination within this two-year extension period, you will then be awarded the BST certificate of completion.

To increase the number of times you can sit the MRCPI examinations while on the BST programme, the College has agreed that from July 2011, doctors will be able to apply to sit Part I of the exam twelve months after obtaining their primary medical degree, i.e. as soon as they enter BST.

All trainees must be successful in passing Part I before they can proceed to Part II written and clinical exams. Trainees must have MRCPI if they wish to be eligible for a Specialist Registrar Post in most of the medical specialties.

The Part I examination is intended to assess knowledge of the basic clinical sciences and clinical application of those sciences necessary for the practice of general medicine. The Part I paper contains 100 single-best-answer style questions, answered in 3 hours. The syllabus from the basic specialist training (BST) curriculum is tested.

The Part II Written Examination consists of two papers that pose questions about the diagnosis and management of patients. Each paper composes of 75 single-best-answer format questions, with 2.5 hours allocated for each paper. The questions are selected to achieve a balanced spread across the specialties; the sciences underlying medical practice and medical diseases, and basic skills required in general medicine. The questions will be on common or important diseases in hospital medical practice. The skills will be examined across the specialties and not necessarily within any individual specialty.

Successful candidates in the Part II Written section proceed to the Part II Clinical examination. The exam consists of two long cases and five short cases.

## **Workplace Based and Annual Assessment**

Trainees will be assessed in the workplace at intervals throughout the BST programme. These assessments must be recorded in the ePortfolio. Trainees are also required to attend an annual review in their hospital, at which their BST ePortfolio is reviewed and they are given the opportunity to provide feedback on their rotation.

## **Certificate of Completion**

In order to be certified with a completion certificate in Basic Specialist Training;

- You must ensure all minimum requirements of your curriculum have been met.
- Form 092 - End of Post Assessment Form should be signed by each of your relevant trainers.
- You must pass the MRCPI Examination
- A copy of your MRCPI Diploma Certificate must be uploaded to the Personal Library section of your ePortfolio.
- Copies of your mandatory course certificates must also be uploaded to the Personal Library section of your ePortfolio.

## **Completion of BST – The 4 year rule**

Trainees must complete BST within a four-year period. If a trainee's expected completion date is changed to a date greater than four years after their start date, they will be required to undertake the full two-year programme again from the beginning.

## **Provisional approval**

Trainees can apply for provisional approval of BST before BST has been completed. Trainees should apply in writing to the BST team, listing all posts held or to be held, including specialty, hospital and dates (applications by email are accepted). If the list of posts supplied by the applicant meets the requirements for BST, their application is provisionally approved and they will be asked to submit supporting documentation and attend any outstanding mandatory courses.

**Note:** Trainees who are in their second year of BST and who wish to apply to Higher Specialist Training are required to submit provisional approval of BST, which confirms that the trainee will complete BST before the start date for SpR posts. Trainees in this position are advised to apply for provisional approval well in advance of the closing date for Higher Specialist Training applications, due to the large volume of applications received every year.

Applicants should note that provisional approval alone does not count as an application for a Certificate of Completion; only applications with a full set of supporting documents will be considered for formal approval. A letter of provisional approval will only stand for a period of six months after a trainees' completion date.

## **Generic Components**

## Standards of Care

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

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

## KNOWLEDGE

### Diagnosing Patients

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

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

- Understand the pathophysiological basis of the investigation undertaken
- Know and be able to explain the procedure for the commonly used investigations
- Careful to select investigations appropriately, considering patients' needs, risks, value

### Treatment and management of disease

- Understand the pharmacology, therapeutics of treatments prescribed, choice of routes of administration, dosing schedules, compliance strategies; the objectives, risks and complications of treatment cost-effectiveness
- Able to assess accurately patient's needs, to prescribe administer, deliver, arrange treatment; recognise and deal with reactions / side effects

### Disease prevention and health education

- Health promotion and support agencies; means of providing and sources of information for patients
- Risk factors, preventative measures, strategies applicable to smoking, alcohol, drug abuse, lifestyle changes
- Able to advise on and promote lifestyle change, smoking cessation, control of alcohol intake
- Non-judgmental approach to patient's problems

### Notes, records, correspondence

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

**Time management and decision making**

- How to prioritise demands, respond to patients' needs and sequence urgent tasks
- Understand the need to complete tasks, reach a conclusion, make a decision and take action with allocated time
- The trainee should be able to recognise when he/she is falling behind and be able to adjust accordingly; able to cope with changing circumstances, variable demand, be prepared to re-prioritise and ask for help
- Have realistic expectations of own and of others' performance
- Time-conscious, punctual

**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, Recommendation)
  - 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**

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

**SKILLS**

- History taking and examination
- Select investigations appropriately and in consultation with supervising clinicians
- Treatment and management of disease
- Health promotion
- Understand the general principles of scientific research
- Maintain legible records in line with the Guide to Professional Conduct and Ethics for Registered Medical Practitioners in Ireland
- Understand the adverse environmental factors and illnesses that may have implications for health and health service provision

**ASSESSMENT & LEARNING METHODS**

- Mini-CEX
- DOPS
- Audit
- Case based discussions
- Ethics, safe prescribing skills and blood transfusion programmes
- BST Leadership in Clinical Practice
- MRCPI examinations

## Dealing with & Managing Acutely Ill Patients in Appropriate Specialties

**Objectives:** To have the knowledge and skills to be able to assess and initiate management of patients presenting as emergencies with the problems outlined below. For each scenario, trainees should, in particular, gain knowledge and skills to recognise the critically ill and:

- Immediately assess and resuscitate if necessary
- Formulate a differential diagnosis, treat and/or refer as appropriate
- Select relevant investigations and accurately interpret reports
- Communicate the diagnosis and prognosis

**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

- How potentially life-threatening problems present; know the indications for urgent intervention, additional information necessary to support action (e.g. results of investigations) and treatment protocols
- When to seek help, refer/transfer to another specialty
- ACLS protocols
- Ethical and legal principles relevant to resuscitation and DNAR in line with National Consent Policy
- How to manage acute medical intake, receive and refer patients appropriately, interact efficiently and effectively with other members of the medical team, accept/undertake responsibility appropriately
- How to manage 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

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

### Discharge planning

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

**SKILLS**

- BLS/ACLS
- 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
- Knowledge of HIPE (Hospital In-Patient Enquiry)
- Multidisciplinary team working
- Communication skills
- Delivering early, regular and on-going consultation with family members (with the patient's permission) and primary care physicians
- Remaining calm, delegating appropriately, ensuring good communication
- Attempting to meet patients'/ relatives' needs and concerns, respecting their views and right to be informed in accordance with Medical Council Guidelines
- Establishing liaison with family and community care, primary care, communicate / report to agencies involved
- Demonstrating awareness of the wide ranging effects of illness and the need to bridge the gap between hospital and home
- Categorising a patients' severity of illness
- Performing an early detection of patient deterioration
- Use of structured communication tool (e.g. ISBAR)

**ASSESSMENT & LEARNING METHODS**

- ACLS Certification
- Mini-CEX (acute setting)
- Case based discussions
- MRCPI examinations

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

### Ethics

- Respect for autonomy and shared decision making
- How to enable patients to make their own decisions about their health care
- How to place the patient at the centre of care
- How to protect and properly use sensitive and private patient information according to Data Protection Act 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)

- When and how to report a near miss or adverse event
- Knowledge of preventing and managing near misses and adverse events. 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

- The importance of patient safety relevance in health care setting
- Standardising common processes and procedures – checklists, vigilance
- The multiple factors involved in failures
- Safe healthcare systems and provision of a safe working environment
- The relationship between ‘human factors’ and patient safety
- Safe working practice, role of procedures and protocols in optimal practice
- How to minimise incidence and impact of adverse events
- 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

**SKILLS**

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

**ASSESSMENT & LEARNING METHODS**

- Ethics, safe prescribing skills and transfusion programme
- BST Leadership in Clinical Practice
- MRCPI examinations

## Infection Control

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

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

## KNOWLEDGE

### Within a consultation

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

### In surgery or during an invasive procedure

- Comply with the guidelines for needle stick injury prevention and management

### During an outbreak

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

## SKILLS

- Practice aseptic techniques, hand hygiene
- Follow guidelines for infection control and management
- Prescribe antibiotics according to antibiotic guidelines
- Communicate effectively with patients regarding treatment and measures recommended to prevent re-infection or spread
- Take advice from infection control colleagues to manage more complex or uncommon types of infection including those requiring isolation e.g. transplant cases, immune-compromised host
- In the case of infectious diseases requiring disclosure:
  - Has knowledge of the diseases requiring disclosure and undertakes notification promptly
  - Collaborates with external agencies regarding reporting, investigating and management of diseases where appropriate
- Avail of support provided by voluntary agencies and patient support groups, as well as expert services where appropriate
- Non-judgmental approach to patient's problem
- Utilises and values contributions of health education and disease prevention and infection control to health in a community.

## ASSESSMENT & LEARNING METHODS

- Workplace based assessment e.g. Mini-CEX, DOPS, CBD
- Completion of infection control as part of the induction in the workplace

## Therapeutics and Safe Prescribing

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

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

### KNOWLEDGE

- Indications, contraindications, side effects, drug interaction, dosage and route of administration of commonly used drugs
- Knowledge of prescribing for common medical conditions
- The range of adverse drug reactions to commonly used drugs, including complementary medicines
- High risk medication - identification
- The effects of age, body size, organ dysfunction and concurrent illness or physiological state e.g. pregnancy on drug distribution and metabolism relevant to the trainees practice
- The role of regulatory agencies involved in drug use, monitoring and licensing (e.g. IMB , and hospital formulary committees
- The procedure for monitoring, managing and reporting adverse drug reaction
- The role of the National Medicines Information Centre (MNIC) in promoting safe and efficient use of medicines

### SKILLS

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

### ASSESSMENT & LEARNING METHODS

- Workplace based assessment e.g. Mini-CEX, DOPS, CBD

## Self-Care and Maintaining Well-Being

### Objective:

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-knowledge – understand own psychological strengths and emotional triggers
- Understand how own personality characteristics such as need for approval, judgemental tendencies, needs for perfection and control etc. affect relationships with patients and colleagues
- Knowledge of core beliefs, ideals, and personal philosophies of life, relating these to their own goals in medicine
- How family-of-origin, race, class, religion and gender issues have shaped own attitudes and abilities to discuss these issues with patients
- Understand difference between feelings of sympathy and feelings of empathy for specific patients and ability to describe factors within themselves and within patients that enhance or interfere with abilities to experience and convey empathy
- Understand own attitudes toward uncertainty and risk taking and own need for reassurance
- Ability to describe how own relationships with certain patients reflect attitudes toward paternalism, autonomy, benevolence, non-maleficence and justice
- Recognise own feelings (love, anger, frustration, vulnerability, intimacy, etc.) in “easy” and difficult patient-doctor interactions

## SKILLS

- Exhibit 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 emotional connections
- 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
- Demonstrate the ability to cope with changing circumstances, variable demand, being prepared to re-prioritise and ask for help
- Using a non-judgmental 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 their attitudes and behaviours are affecting their care of patients and their interactions with others
- Hold realistic expectations of own and of others' performance, be time-conscious and punctual
- Value the breadth and depth of experience that can be accessed by associating with professional colleagues

**ASSESSMENT & LEARNING METHODS**

- Physician wellbeing and stress management course
- Occupational Stress course

## Communication in Clinical Settings

**Objective:** To be able to communicate effectively with patients, their relatives and with professional colleagues in different situations.

**Medical Council Domains of Good Professional Practice:** Relating to Patients, Communication & Interpersonal Skills, Collaboration & Teamwork, Professionalism.

### KNOWLEDGE

#### Within a consultation

- How to structure an interview to obtain/convey information; how to use/choose appropriate language
- Knowledge of procedures/investigations available
- Able to communicate essential information
- Considerate, shows respect for other's culture, opinions, patient's right to be informed, make choices
- How to empower patients and encourage self management

#### In difficult circumstances

- Understands potential areas for difficulty
- Knows when to seek assistance, especially in dealing with challenging or aggressive behaviour
- Appropriately uses assistant, interpreter, chaperone, relatives
- How to deal with anger and frustration in self

#### With professional colleagues and others

- How best, and when, to communicate with doctors and other members of the healthcare team; how to provide concise, problem-orientated statement of facts and opinions (written, verbal or electronic)
- Knowledge of legal context status of records and reports, of data protection (confidentiality), Freedom of Information (FOI) issues
- Understands relevance to continuity of care and the importance of legible, accessible, authenticated records
- Communicate effectively and promptly; recognise and respect roles and skills of other health professionals
- Able to judge own abilities/limitations and when to refer

#### In maintaining continuity of care

- Understands the relevance to outcome of continuity of care, within and between phases of healthcare management
- The importance of completion of tasks and documentation e.g. before handover (to another team, department, specialty), of identifying outstanding issues, uncertainties
- Maintains legible records, is available, contactable, time-conscious

#### Giving explanations

- The importance of possessing the full facts
- Need to interpret results, significance of findings, diagnosis, to explain objectives, limitations, risks of treatment, in terms and by means adjusted to recipients' ability to comprehend
- Uses language, literature (leaflets) diagrams, educational aids and resources appropriately
- Able to achieve level of understanding necessary to achieve co-operation (compliance, informed choice, acceptance of opinion, advice, recommendation)
- Prepared to discuss repeat information, resolve uncertainty, confusion, respond to questions

**Responding to complaints**

- Value of hearing complaints promptly
- The importance of obtaining and recording accurate and full information, seeking confirmation from multiple sources
- Able to establish facts, identify issues and report to senior as required.
- Accepts responsibility, involves others, consults appropriately
- Open, able to accept criticism, acknowledge shortcomings where they exist, offer an apology

**SKILLS**

- General interviewing and presentation skills
- Communicate in a clear and thoughtful manner
- The ability to establish a professional relationship with, and to communicate verbally and by the written word with patients, their relatives or caregivers and with other health professionals
- The ability to clearly, concisely and accurately record the patient's problem by a written medical record in a timely manner that is regularly updated
- Breaking bad news appropriate to their level in certain clinical situations – dealing with bereaved/angry relatives and patients
- Recording complaints and seeking help with dealing with complaints
- Verbal presentation at the bedside (using appropriate language), in a seminar or classroom, and to other health professionals
- The ability to write a competent discharge summary, a competent letter for outpatients after referral from a general practitioner and to know when and how to communicate urgently with a GP by telephone
- Communicate accurately handover care between shifts
- Patient education

**ASSESSMENT & LEARNING METHODS**

- Professional Development Programme
- Mini-CEX
- MRCPI examinations

## Leadership

**Objective:** To begin to exhibit the knowledge, skills and attitudes of a leader by working closely with colleagues 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

#### Working in complex services

- The structure and function of Irish health care system
- Awareness of the challenges of managing in healthcare
  - Role of governance
  - Clinical directors

### 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

#### Demonstrating personal qualities

- Efficiently and effectively managing one-self and own 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
- Building and maintaining key relationships
- Adapting style to work with different people and different situations

### ASSESSMENT & LEARNING METHODS

- BST Leadership in Clinical Practice
- Consultant feedback at annual assessment
- Workplace based assessment e.g. Mini-CEX, DOPS, CBD

## 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

- Knowledge of the wider healthcare system direction and how that may impact local organisations

### SKILLS

- Improvement approach to all problems or issues
- Use of quality improvement methodologies, tools and techniques within every day practice
- Ensuring patient safety by adopting and incorporating a patient safety culture

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 BST Leadership in Clinical Practice

## Scholarship

**Objective:** To adopt the habits of lifelong learning, and to appreciate the practices of clinical governance.

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

## KNOWLEDGE

### Application of clinical governance

- Understand the principles of evidence-based practice, clinical audit and effectiveness, the development/application of best-practice protocols
- Risk management
- Systems, procedures for identifying (clinical) risk; correct procedures and action when things go wrong; how to handle complaints, when to seek help
- Employer's procedures and policy for accidents
- Potential complications or side effects of treatments, procedures and investigations; importance of accurate, recent information and available records
- Openly discuss mistakes
- Able to learn from previous experience, from complaints received, errors.
- Be honest in recognising misjudgements

### Lifelong learning

- Understand the role of appraisal, assessment methods available, and their application
- Identify source, resources, opportunities for self-directed and group learning including IT
- Recognise and makes effective use of learning opportunities, maximise the potential for personal study, plans personal development
- Self motivated, inquisitive, eager to learn

## SKILLS

- Personal development planning
- Risk Management
- Evidence based medicine
- Appreciation of the logical use of guidelines, texts, reference literature and related sources
- The habit and principles of self-education and monitoring one's own performance in order to continuously update and refresh knowledge and skills during training and as a lifelong commitment to continuing education
- Understanding the social and governmental aspects of health care provision
- Understanding the cost-effectiveness of individual forms of care
- Basic research and audit skills

## ASSESSMENT & LEARNING METHODS

- BST Leadership in Clinical Practice
- Record of attendance at in-house training, grand rounds and academic meetings
- An Introduction to Health Research (optional)

## Management

**Objective:** To understand the organisation, regulation and structures of the health services.

**Medical Council Domains of Good Professional Practice:** Professionalism, Management including Self-Management.

## KNOWLEDGE

### Health service structure, management and organisation

- Knowledge of Department of Health, HSE and hospital management structures and systems
- The provision and use of information in order to regulate and improve service provision
- Knowledge of the sources that can provide information relevant to national or local services, publications available
- Able to seek / locate information
- Obtaining information of value in maintaining medical knowledge with a view to delivering effective clinical care
- Knowledge of resources providing updates, literature reviews and digests
- Able to make use of information, use IT and undertake searches
- Embrace principles of clinical governance
- Use and application of descriptive statistics. Knowledge of statistical techniques with respect to clinical trials, evidence-based medicine, and epidemiology

### Personal effectiveness

- Develop personal effectiveness; manage time more efficiently, deal with pressure and stress.
- How to operate within a multidisciplinary team.
- How to maintain, improve working relationships within a team; appropriately recognise roles, skills, status.
- Able to adjust to change.
- Self-awareness, able to recognise strengths and weaknesses.
- Sensitive to and aware of the needs of others

## SKILLS

- Risk management
- Time management
- Interpersonal skills

## ASSESSMENT & LEARNING METHODS

- BST Leadership in Clinical Practice
- MRCPI examinations

## **Specialty Section**

## Basic Knowledge Requirements

**Objectives:** to be able to describe the basic science knowledge as previously covered in the undergraduate course and apply this knowledge in training and clinical work.

### Knowledge

#### Molecular Biology and Genetics

- Genes and genetic exchange: chromosomes, DNA structure, singly and double-stranded DNA, recombination, insertion, transpositions, transformation, transduction, conjugation, crossover, linkage, plasmids and bacteriophages, oncogenes, polymerase chain reaction
- Gene expression: transcription of DNA into RNA, protein synthesis, errors
- Human genetics
- Congenital abnormalities
- Inheritance patterns, dominant, recessive, autosomal, sex linked, penetrance, multifactorial
- Chromosomal abnormalities
- Genetic testing, genetic counselling, gene therapy

#### Biochemistry

- Structure and function of: carbohydrates, fats, proteins, amino acids, purine and pyrimidine nucleotides, vitamins, lipids, porphyrins, complex carbohydrates, glycoproteins, and proteoglycans
- Metabolic sequences (not detailed chemistry), regulation, disorders glycolysis, pentose phosphate pathway, tricarboxylic acid cycle, ketogenesis, electron transport and oxidative phosphorylation, gluconeogenesis, glycogenesis, fatty acid and triglyceride synthesis, glycogenolysis, ATP

#### Physiology

- Cells and tissues - receptors, excitation and conduction of excitable tissues, voltage and ligand gated channels, cell components, intracellular organelles, movement and intracellular transport, secretion, intercellular junctions, gap junctions, and desmosomes, connective tissue cells and matrix, muscle cells, contraction, neuromuscular junction, excitation-contraction coupling, cell hypertrophy, cell injury and necrosis, free radical injury, cell cycle, mitosis, meiosis, apoptosis
- Systems
- Homeostasis
- Ability to recognize normal health
- Ability to distinguish normal secondary responses to disease from primary disease processes
- Detail by individual system

#### Anatomy, structure and ultrastructure

- Aspects of topographical anatomy which enable anatomical diagnoses
- Organ position and relations, organ structure, histological structure and electron microscopic structure which enables pathologic diagnoses and classification of diseases, (ability to recognize detailed microscopic structure is not required)
- Surface anatomy examples of clinically useful knowledge of structure include: distribution of peripheral nerves, dermatomes, central nervous system pathways, distribution of coronary arterial supply, lymphatic drainage of organs, surface anatomy of lobes of the lung, location of the kidney and ureters, relations of head of pancreas
- Detail by individual system

**Pathology**

- Inflammation
- Mediators, vascular response to injury, inflammatory cell recruitment, bactericidal mechanisms, wound healing, haemostasis
- Neoplasia
- Histology, staging of neoplasms, hereditary neoplastic disorders, metastasis, tumor immunology, paraneoplastic features, epidemiology and prevention
- Detail by individual system

**Environment**

- Nutrition, hydration
- Temperature
- Occupational hazards
- Radiation, hypobaric and hyperbaric pressure
- Toxic chemicals (e.g. chlorine gas, smoke inhalation, agricultural hazards, solvents, metals, poisons)
- Allergens
- Carcinogens

**Statistics and epidemiology**

- Measurement
- Location and dispersion: mean, median, mode, range, standard deviation, standard error, confidence intervals, percentiles
- Distributions: normal, skew, transformed
- Associations: correlation and regression
- Critical analysis of test results: sensitivity, specificity, negative and positive predictive values, risk ratios
- Graphical presentation of data
- Study design
- Clinical trials
- Double blind, placebo controlled
- Cohort, case-control, cross-sectional, case series, longitudinal surveys
- Sampling and sample size statistical power
- Randomization, stratification
- Hypothesis testing and statistical inference
- Statistical significance, Type I, II errors, probability
- T-tests, Chi-square, analysis of variance, non-parametric tests
- Epidemiology of diseases
- Cumulative and point prevalence, incidence
- Standardised mortality rates
- Geographical, gender, racial, social class factors in disease
- Prevention of disease in individuals and populations
- Health care delivery

**Assessment & Learning Methods**

- MRCPI

## Procedural Skills

**Objective:** the trainee should be able to demonstrate proficiency in performing and interpreting procedures either independently or under supervision.

## Knowledge

- Knowledge of the following core procedural skills will have been acquired as pre-registration house officer (intern) before entry to the BST programme:
- Venepuncture and IV Cannulation
- Use of local anaesthetics
- Arterial puncture in an adult
- Blood cultures from peripheral and central lines
- Injections – subcutaneous intradermal, intramuscular and intravenous cannula
- Prepare and administer IV medication, Intravenous infusions
- Perform and interpret an ECG
- Perform and interpret pulmonary function peak flow and spirometry
- Urethral catheterisation
- Nasogastric tube insertion
- Airway management
- Ability to obtain a history from a patient, conduct a physical examination and provide appropriate management
- Ability to interpret physical signs and form and record a clear management plan after initial history and clinical examination
- Understand and apply principles of therapeutics and safe prescribing

## Skills

- Advanced Cardiac Life Support (ACLS)
- Lumbar puncture
- Pleural aspiration under ultrasound
- Performance and interpretation of electrocardiographs (resting and exercise)
- Specialty-related skills - Additional skills may be obtained in certain specialties, e.g. knee joint aspiration, paracentesis, skin biopsy

## Assessment & Learning Method

- ACLS certified
- Skills obtained in the workplace/clinical skills laboratory
- DOPS:
  - Lumbar puncture
  - Pleural aspiration under ultrasound
  - Performance and interpretation of electrocardiographs (resting and exercise)

## Clinical Skills and Investigations

**Objective:** the trainee should be able to demonstrate an understanding of indications and interpretation of commonly used clinical tests.

### Knowledge

- Knowledge of the epidemiology of disease - causation, prevalence and incidence
- Knowledge of laboratory investigations, diagnostic imaging, specialist investigations including biopsy and endoscopy.
- Appropriate use of investigations and the interpretation of results to aid diagnosis
- Problem solving, including problem identification, analysis and management by the use of appropriate resources, interpretation of laboratory results and the importance of avoiding unnecessary investigations and hospitalisation
- Commonly used laboratory tests such as:
  - Auto-antibody testing
  - Arterial blood gas analysis
  - Blood biochemistry, glucose, magnesium
  - Blood/sputum/urine culture and sensitivities
  - CSF Analysis
  - Full blood count
  - Inflammatory markers
  - Pleural and ascitic fluid analysis
  - Thyroid function tests
  - Urine analysis and microscopy
- Specialty related laboratory tests such as:
  - Joint fluid analysis
  - Coagulation screening
- Commonly used Radiology tests such as:
  - Chest, abdominal and bone X-rays
  - Joint X-Rays - knee, hip, hands, shoulder, elbow, dorsal spine, ankle
- Specialty related Radiology tests such as:
  - CT scans
  - MRI
  - Other commonly used radiology investigations
- Miscellaneous tests such as:
  - Echocardiography
  - EEGs – uses and limitations, interpretation of reports
  - Duplex ultrasound of carotid arteries
  - Documenting and interpreting simple tests of cognitive function
  - Tuberculin skin test
  - Peak flow tests
  - Full pulmonary function tests

**Skills**

- Ability to conduct a comprehensive systematic examination
- Ability to produce a programme of investigations
- Systematic presentation of medical history and ability to establish correct facts
- Communication skills
- Clarity and pace of presentation of the history
- Communication and sympathetic attitude with the patient
- Ability to communicate to the patient and the examiner
- Ability to communicate information with medical college and hospital e.g. ward round, specialist referral;
- Ability to communicate information with colleagues in primary care and other disciplines e.g. discharge and outpatient correspondence and information.
- Physical Examination
- Ability to conduct a comprehensive systematic examination with skilled technique enabling the correct clinical findings to be established
- Management and acumen
- Ability to produce a programme of investigations in an appropriate and logical manner, clinical management and problem solving.
- Appropriate use of investigations and interpretation of results

**Assessment & Learning Methods**

- Knowledge obtained in the workplace
- Mini-CEX
- MRCPI

## Acute Medicine

**Objective:** Proficiency in the assessment and initial management of acutely ill patients who are less critically ill or injured but present as emergencies.

The following list is provided as a guide to general areas where knowledge of emergency care is expected. Those features peculiar to the ill or injured child should be understood by trainees who work in departments receiving children.

### Knowledge

- Initial care of the critically ill and injured patient
- Assessment and management of all common medical emergencies, including:
  - Collapse including cardiac failure, hypovolaemia, haemorrhage, anaphylaxis, metabolic crises, overwhelming sepsis, hypothermia, electrolyte disturbances.
  - Acute dyspnoea, respiratory failure, pneumothorax.
  - Psychiatric presentations to the Emergency department: - Management of poisoning and self harm, alcohol related problems, substance misuse. delirium, disturbed or violent behaviour, interaction with acute psychiatric services.  
(Assessment and appropriate referral, special referrals)
  - Acute cardiac emergencies: acute coronary syndrome, arrhythmias, assessment of chest pains.
  - Acute neurological emergencies, including acute stroke, TIA, seizure disorders, meningitis, traumatic brain injury
  - Acute ear, nose and throat problems
  - Acute rheumatological conditions
  - Assessment of elderly patients with complex presentations and multiple pathology. Appropriate discharge planning.
- Knowledge of how to obtain more detailed information about common emergencies and how to obtain help in the case of more unusual presentations.
- The special problems encountered at the scene of an incident and during transfer should be appreciated and the general principles of pre-hospital care understood.
- Knowledge of a hospital process during a major incident

### Skills

- Assessment of alcohol and drug consumption
- Discharge planning: discharge summaries outpatient letters written in a timely manner.
- Communication skills

### Assessment & Learning Methods

- CCU experience
- Advanced Cardiac Life Support (ACLS)
- MedicALS (optional)
- Mini CEX
- MRCPI

## Cardiology and the Cardiovascular System

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common cardiac conditions under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in cardiology.

### Knowledge

- Anatomy and physiology of the heart.
- Epidemiology; patho-physiology; clinical features; risk factors; primary and secondary prevention; pharmacological and non-pharmacological therapies of common cardiac conditions.
- Coronary disease including
  - Acute Coronary Syndrome
  - Prevention
- Cardiac arrhythmias
  - Acquired
  - Inherited
- Cardiac failure
  - Left Heart Failure
  - Right heart failure
  - Systolic failure
  - Diastolic failure
- Hypertension
  - Primary and secondary hypertension
- Valve disease:
  - Valvular lesions
  - Valve replacement
  - Infective Endocarditis
- Cardiomyopathies
- Congenital and acquired vascular disease
  - Aortic aneurysm and dissection
  - Diagnosis and management of Cardiac Tamponade
  - Pulmonary embolism (see also Respiratory Medicine)
  - Indications and interpretation of specialised cardiac tests.
- Rehabilitation for cardiac disease
- Pharmacological therapy of common cardiac conditions
  - Indications, management and complications of:
    - Anticoagulants
    - Knowledge of warfarin clinics
    - Anti-anginals
    - Anti-platelet therapy
    - Fibrinolytics
    - Anti-Hypertensive medications
    - Lipid-lowering medications
    - Anti-arrhythmics
    - Medications in Cardiac Failure
    - Empirical and targeted anti-microbial therapy in IE

### Skills

- Cardiovascular examination
- Advanced Cardiac Life Support (ACLS)
- Resting and exercise ECG –performance and interpretation
- Non-acute cardiac events

## Assessment & Learning Methods

- Mini-CEX: Chest pain assessment and appropriate referral
- DOPS: Performance and interpretation of electrocardiography
- ACLS certified
- CCU experience
- Observation:
  - Pacemaker insertion
  - Echocardiology
  - Central line insertion
- MRCPI

### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through a cardiology post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Performing and interpretation of exercise stress tests
- Observation of echocardiogram
- Observation of pacemaker/internal cardiac defibrillator insertion
- Observation of angiography/angioplasty/cardiac stenting
- Interpretation of holter and 24 hour blood pressure monitors

## Clinical Immunology

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common conditions in clinical immunology under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in clinical immunology.

### Knowledge

- Physiology and pathology in immune system functions:
  - Antigen presentation, tolerance
  - Cellular immunity
  - Humeral immunity
  - Immunization
- Epidemiology; pathophysiology; clinical features; risk factors; complications: pharmacological and non-pharmacological therapies of common immunological conditions:
  - Immunodeficiency, including AIDS
  - The immunosuppressed patient
  - Hypersensitivity reactions
  - Transplantation including graft-versus-host reactions
  - Autoimmune disorders
  - Drug-induced alterations in immune responses
  - Allergy
    - Type/manifestations of allergic reaction
    - Anaphylaxis
    - Rhinitis, asthma and atopic eczema (see also Dermatology & Respiratory Medicine)
    - Food allergy
    - Drug allergy – differentiate allergy from other adverse events, and determine the
    - Cross-reactivities commonly encountered in drug allergy.
  - Autoimmunity
  - Vasculitis and connective tissue diseases
  - Auto-inflammatory and paraneoplastic syndromes.
- Indications and interpretation of specialised immunological tests
- Use of plasma exchange
- Pharmacological therapy of common immunological conditions
  - Indications, management and complications of:
    - Immunosuppressant medications
    - Corticosteroids
    - Anti-inflammatories
    - Immunoglobulin products
    - Currently licensed vaccines

### Skills

- Ability to take a competent allergy history, including differentiating possible allergy from chronic urticaria and angioedema.
- Clinical assessment of possible drug allergy
- Discussing risks of immunoglobulin and administering IVIG

**Assessment & Learning Methods**

- Mini-CEX
- MRCPI
- Immunology course (non-mandatory)

## Clinical Pharmacology and Therapeutics

**Objectives:** On successful completion of this module the trainee should be able to:

- Demonstrate an understanding of the pharmacology of the major drug classes
- Demonstrate an understanding of the pharmacotherapy of common diseases
- Discuss the application of pharmacokinetic principles to appropriate prescribing in the individual patient
- Write a prescription clearly, legally and unambiguously
- Apply the principles of rational prescribing to his/her clinical practice

### Knowledge

- Knowledge of pharmacology and therapeutics of major drug classes
- Knowledge of the management of common diseases.
- Principles underlying rational drug use:
  - Pharmacodynamics including receptor pharmacology, non-receptor mediated drug activity, dose-response relationship, efficacy, tolerance, potency, agonists, partial agonists and antagonists.
  - Pharmacokinetics including absolute and comparative bioavailability, drug transport and metabolism, definition of drug clearance, half-life, volume of distribution, therapeutic index, the cytochrome P450 family of enzymes. The importance of these concepts to choice of route, dose and dose-frequency of medications.
- Mechanisms of drug interactions
- Dose response curves
- Role of therapeutic drug monitoring.
- Safe prescribing, the concept of benefit-risk ratio of a drug, adverse drug reactions (ADRs), the role of pharmacists and Irish Medicines Board, especially in reporting ADRs.
- Clinical pharmacology as per speciality.
- Clinical toxicology including overdoses.
- Drug development – understanding phases and types of clinical trials, role of investigator and Ethics Committee (Good Clinical Practice)
- Particular issues with drug use in:
  - The elderly
  - Younger populations
  - Liver and renal disease
  - Pregnancy.
- Patient drug compliance and how to optimise adherence.
- Drugs and therapeutics committees
  - Their roles and functions
  - Economic use of medicines, pharmaceutical sponsorship
  - Evidence-based drug information – reliable independent sources

**Skills**

- Application of therapeutics, including drug and non-drug approaches to treatment safe, effective and economic prescribing, including patient counselling, use of formularies and evidence-based medicine, monitoring for effect and toxicity.
- Use of drugs in medical emergencies and management of drug overdose.
- Detecting and reporting adverse drug reactions
- Ability to undertake a thorough medication review
- Correct prescribing practice, including tailoring therapy to the individual patient including those in at-risk groups
- Familiarity with medicines (dosage, contra-indications, caution) for common emergencies and common medical conditions.
- Therapeutic drug monitoring
- Parenteral administration of drugs, calculation of dosage

**Assessment & Learning Methods**

- Ethics, safe prescribing skills and transfusion programme
- Medication Safety course (non mandatory online course)
- MRCPI

## Dermatology

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common dermatological conditions under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in dermatology.

### Knowledge

- Epidemiology, anatomy and pathophysiology of the skin, nails and hair.
- Clinical features; investigations; pharmacological and non-pharmacological therapies of common skin, nail and hair conditions
- Indications and interpretation of common diagnostic procedures and tests in dermatology.
- Diseases predominantly cutaneous with possible systemic associations:
  - Inflammatory skin disease:
    - Eczema (dermatitis)
    - Psoriasis,
    - Acne/rosacea
    - Urticaria,
    - Photosensitivity
    - Infection/Infestation:
    - Immunologically mediated/Collagen vascular disease
    - Drug reactions
  - Skin tumours:
    - Benign.
    - Malignant/pre-malignant
    - Prevention
- Diseases predominantly systemic with cutaneous associations:
  - Systemic malignancy
  - Metabolic and Endocrine diseases
  - Immunologically mediated/Collagen vascular disease
  - Inflammatory bowel disease
  - Lymphoreticular disorders
  - Neurocutaneous disorders
- Dermatological emergencies

### Skills

- Assess and manage common dermatological conditions

### Assessment & Learning Methods

- Self-directed learning
- MRCPI

#### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through a Dermatology post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Skin biopsy

## Endocrinology and Diabetes

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common endocrinological conditions under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in endocrinology.

### Knowledge

#### Endocrinology

- Basic mechanisms of hormone action in health and disease
- Epidemiology; pathophysiology; clinical features; investigation, pharmacological and non-pharmacological therapies of common endocrine conditions
- Pituitary disorders
- Parathyroid disorders
- Thyroid disorders
- Adrenal Disorders
- Endocrine causes of hypertension
- Disorders of sodium metabolism
- Disorders of calcium, phosphate and vitamin D metabolism
- Disorders of lipid metabolism
- Disorders of glucose metabolism
- Multiple Endocrine Neoplasia Syndromes
- Knowledge of:
  - Hypogonadism
  - Hirsutism
  - Paget's disease
  - Ectopic humoral syndromes
- Investigation and management of obesity
- Understanding of concepts and treatment of cardiometabolic risk
- Indications and interpretation of common tests in Endocrinology
- Pharmacological therapy of common endocrine conditions
  - Hormones and hormone analogues
  - Inhibitors and stimulators of hormone production
  - Hormone antagonists
  - Insulin
  - Oral hypoglycaemics
  - Anti-osteoporotic agents

#### Diabetes Mellitus

- Epidemiology; pathophysiology; clinical features; investigations, pharmacological and non-pharmacological therapies, prevention and management of complications.

### Skills

- Ophthalmoscopy for vitreo-retinal disease.
- Managing insulin and oral hypoglycaemic therapy.
- Finger-prick blood glucose monitoring.
- Managing diabetic emergencies

**Assessment & Learning Methods**

- MDT Meetings
- Awareness of the role of dietician, clinical nurse specialist and other medical specialists
- MRCPI

**ROTATION SPECIFIC**

**(Areas required when trainee rotates through an Endocrinology post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Performing and interpreting diagnostic tests for acromegaly, hypocortisolaemia, hypoglycaemia and hypopituitarism
- Managing insulin titration
- Attending foot clinics

## Gastroenterology and Hepatology

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common gastroenterology and liver conditions under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in gastroenterology and hepatology.

### Knowledge

#### Gastroenterology

- Epidemiology; anatomy, pathophysiology of the gastrointestinal system
- Clinical features; investigations; pharmacological and non-pharmacological therapies of common gastrointestinal conditions
- Indications and interpretation of common diagnostic procedures and tests
- Disorders of the upper gastrointestinal tract
  - Dyspepsia
  - Dysphagia
  - Dysmotility
  - Peptic ulcer disease
  - Helicobacter Pylori
  - Upper GI bleeding
  - Persistent vomiting
  - Acute and chronic abdominal pain
- Disorders of the lower gastrointestinal tract
  - Coeliac disease
  - Gastrointestinal infections
  - Inflammatory bowel disease
  - Malabsorption syndromes
  - Bowel obstruction
- Disorders of the exocrine pancreas
- Gastrointestinal malignancy
- Indications and interpretation of common tests in gastroenterology
- Pharmacological therapy of common gastroenterology conditions
- Indications, mechanism of action, side-effects of:
  - Antacids
  - Anti-secretory drugs
  - Anti-constipation agents
  - Anti-diarrhoeal drugs
  - Motility drugs
  - Mucosal protective agents
  - Antibiotics
  - Fluid and electrolyte replacement
  - Pancreatic replacement
  - Immunosuppressant agents
  - Nutritional supplements
  - Parenteral and enteral nutrition
- Knowledge of multidisciplinary approach to artificial feeding regimes.

## Hepatology

- Epidemiology; pathophysiology; clinical features; investigations; pharmacological and non-pharmacological therapies
- Acute and Chronic liver failure
- Chronic liver Disease
  - Alcohol-related liver disease
  - Viral Hepatitis
  - Immunological liver disease
  - Metabolic liver disease
  - Drug-induced liver disease
  - Liver disease of other aetiology
- Liver cirrhosis and its complications
- Liver infection and abscess
- Malignancies of the liver and biliary system
- Disorders of the biliary tract
- Jaundice
- Pharmacological therapy of common gastroenterology conditions
- Indications, mechanism of action, side-effects of:
  - Antimicrobial therapies
  - Medications for the treatment of the complications of cirrhosis
  - Chelating agents
  - Medications to treat gallstones
  - Immunosuppressants

## Skills

- Insertion of nasogastric tube.

## Assessment & Learning Methods

- Appropriate interaction with multi-disciplinary team
- Managing Acute GI presentation – GI bleed, acute abdominal distention, cirrhosis and acute complications (record number in logbook)

### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through a gastroenterology/hepatology post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Abdominal paracentesis
- Observation of endoscopy and ERCP
- Observation of abdominal ultrasound and MRCP/ERCP

## Genito-Urinary Medicine

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common genitor-urinary conditions under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in genitor-urinary medicine.

### Knowledge

- Anatomy and physiology of the genito-urinary system
- Sexually Transmitted Disease
  - Epidemiology; patho-physiology and prevention of common sexually transmitted infections
  - Clinical features, investigations, pharmacological and non-pharmacological therapies for common sexually transmitted infections
  - Sexual health promotion and education
- Infections of the genito-urinary system
- Disorders of the female genito-urinary system
  - Endocrine disorders/conditions
    - Polycystic ovarian syndrome
    - Hypogonadism
    - Menopause
  - Mastitis
  - Vaginal discharge
  - Genital ulcer
  - Pelvic pain
  - Malignancies
- Disorders of the male genito-urinary system
  - Urethral discharge
  - Genital ulcer
  - Orchitis
  - Epididymitis
  - Prostatitis
  - Proctitis
  - Hypogonadism
  - Erectile dysfunction
  - Benign prostatic hyperplasia
  - Gynaecomastia
  - Malignancies
- Reproductive disorders
  - Infertility
- Indications and interpretation of common tests in genito-urinary medicine
- Pharmacological therapy of common conditions in genito-urinary medicine
- Indications, mechanism of action, side-effects of:
  - Anti-microbials
  - Contraceptive agents
  - Treatments of menopause and its complications
  - Fertility medications
  - Fertility drugs, contraception, treatment of menopause, stimulators and inhibitors of lactation,
  - Androgen replacement and antagonists
  - Gonadotrophin-releasing hormone and gonadotrophin replacement
  - Medications for erectile dysfunction

**Skills**

- Taking sexual history

**Assessment & Learning Methods**

- Observation of skills
- Awareness of child protection

**ROTATION SPECIFIC**

(Areas required when trainee rotates through a genitor-uninary post. These areas are not required for the general curriculum or for the MRCPI exam)

- Vaginal speculum examination
- Urethral swabs
- Taking microbiology and virology anogenital samples from men and women

## Geriatric Medicine

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common conditions of age-associated illness under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in Geriatric medicine.

### Knowledge

- Epidemiology; pathophysiology; clinical features; epidemiology of normal physiological ageing;
- History taking and assessment, and management of age—associated illness:
  - Recurrent unexplained falls and syncope
  - Dementia and cognitive dysfunction
  - Acute confusional states (See also Acute Medicine/Psychiatry/Palliative Care/Neurology curricula)
  - Stroke , Acute stroke care, stroke thrombolysis & stroke unit care
  - Parkinson’s disease;
  - Incontinence and urinary symptoms
  - Constipation
  - Gait disorders
  - Arthritis
  - Osteoporosis
  - Pressure ulcers
  - Pain
  - Psychiatric illness, including its relationship to physical illness
- Managing multiple co-morbidities in older patients
- Recognition of acute illness in older people
- Understanding the challenges of prescribing in older patients,
- Indications and interpretation of specialised tests in geriatric medicine.
- The pharmacokinetic and pharmacodynamic changes associated with ageing
- Pharmacological therapy of common geriatric conditions
- Understanding the role of different therapists (OT, physiotherapy, SLT, Social worker) in the multidisciplinary team & acute care
- Decision making capacity & legal framework around capacity, ward of court, power of attorney & care representative (See also Palliative Care)
- Psychosocial factors in the assessment and management of the elderly:
  - The importance of the functional assessment of elderly patients in terms of impairment, disability and handicap that also includes social, psychological and environmental dimensions
  - An understanding of some of the physical, psychological and social changes that occur with age and attitudes of society towards ageing, and the importance in the face of illness and frailty of promoting the patient’s dignity and sense of identity
  - Awareness of ageist practice
  - Awareness of important ethical issues in caring for elderly people
  - An appreciation of the role and needs of the carers of elderly disabled people
  - Understanding the role of aids (including hearing aids) and appliances in the rehabilitation of elderly disabled people
  - Understanding the medical role in a multidisciplinary team and understanding the role of each discipline in care of the elderly
  - Rehabilitation
  - Knowledge of the community services available to support older people at home
  - Ethical Issues in the ageing patient - Enteral feeding; Enduring power of attorney; Ward of court

## Skills

- Administration of functional and cognitive assessment scales
- Appreciation of the principles of consent and legal aspects to treatment when there is mental incapacity
- Discharge co-ordination and pathways available

## Assessment & Learning Methods

- Number of Clinics
- MDT working
- Community services
- MRCPI
- Ethics, safe prescribing skills and transfusion programme

### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through a gerontology post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Observation of tilt-table testing
- Interpretation of event monitors
- Evaluation in day ward
- Liaison with long-term care facilities
- Complex discharge planning
- Frailty assessment & recognition
- Knowledge of appropriate & inappropriate use of medication in older people
- Rehabilitation throughout hospital journey & the role of specialised rehabilitation services for older people
- End-of-life & palliative care issues in non-malignant conditions

## Haematology

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common haematological conditions under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in haematology.

### Knowledge

- Physiology of haemopoiesis and how the cellular elements of blood are made.
- Epidemiology; patho-physiology; clinical features; risk factors; primary and secondary prevention; pharmacological and non-pharmacological therapies of common haematology conditions:
- Red cell disorders -
  - Anaemias.
  - Polycythaemias -
  - Thalassaemias.
  - Haemoglobinopathies
- White cell disorders -
  - Leukaemias - acute and chronic, myeloid and lymphoid.
  - Lymphomas - Hodgkin's disease and the non - Hodgkin lymphomas.
  - Myeloproliferative disorders.
  - Myeloma and other plasma cell disorders.
- Platelet disorders -
  - Thrombocytopenia.
  - Thrombocytosis.
- Pancytopenia
  - Prevention, investigation and management
- Thrombosis  
(See also Cardiology curriculum)
- Coagulation
  - Thrombophilias
  - Coagulopathies
    - Inherited and acquired
  - Reversal of over-anticoagulation
- Indications and interpretation of common haematology investigations:
- Indications for and complications of transfusion of blood and blood products
- Indications and interpretation of specialised haematology tests
- Pharmacological therapy of common haematology conditions
  - Indications, management and complications of:
    - Empirical and targeted anti-microbial therapy in neutropenic sepsis
    - Anti-coagulants (See also cardiology curriculum)
    - Erythropoietin
    - Colony-stimulating factors
    - Immunosuppressants
    - Corticosteroids
- Knowledge of:
  - Transplantation
  - Chemotherapy
  - Febrile neutropenia

### Skills

- Blood transfusion and administration of blood products.
- Management of anticoagulation
- Appropriate referral

## Assessment & Learning Methods

- DOPS: Bone marrow aspiration
- MRCPI
- Ethics, safe prescribing skills and transfusion programme

### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through a haematology post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Observation and performance of bone marrow aspiration.
- Observation of initiation of chemotherapy
- Presentation of a haematology case
- Visit and observation in a haematology laboratory

## Infectious Diseases

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage patients in Intensive Care Units under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in Intensive Care.

### Knowledge

- Recognition and immediate management of acute infectious emergencies
  - Sepsis including:
    - Interpretation of Early Warning Scores (EWS)
    - Necrotising fasciitis
    - Meningitis/encephalitis
    - Cerebral malaria
- Pathogenesis & epidemiology of infection – general principles and management
- Sepsis in the immunocompromised patient
- Systemic inflammatory response syndrome
- Neutropenic sepsis
- Common bacterial infections
  - Meningitis
  - Bacterial endocarditis
  - Urinary infections
  - Food poisoning
  - Soft tissue and skin infections
- Mycobacterial infections
  - Mycobacterium (MOTT) infections
  - Tuberculosis – management and workup
- Recognition and management of common community and hospital acquired infections
  - MRSA and Clostridium-Difficile
  - Viral infection
  - Influenza
  - Herpes viruses
  - Measles
  - Hepatitis
  - Urinary tract infection
  - Skin and soft tissue infections
- Fungal infections
  - Superficial
  - Systemic
- Opportunistic infections in the immunocompromised individual
  - Primary immunodeficiency syndromes and transplantation medicine.
- Knowledge of
  - HIV infection – clinical presentation, management complications and prevention.
  - Sexually transmitted infections – assessment, diagnosis, treatment and prevention See genitourinary medicine
    - Gonorrhoea
    - Syphilis
    - Non-specific urethritis
    - Chlamydia
    - Genital ulcerative disease
  - Travel related infections - Clinical and laboratory assessment of the febrile patient returning from abroad
  - Pyrexia of unknown origin
  - Chronic fatigue syndrome
  - Antimicrobial chemotherapy
    - Antimicrobial prophylaxis
    - Antiviral, including HAART
    - Antifungals
    - Mechanisms of antimicrobial resistance and its prevention
    - Antimicrobial prophylaxis

- Principles of vaccination
- Infection control and prevention
  - Vaccination
  - Patient isolation
  - Protective clothing and hand washing
  - Antimicrobial prophylaxis
  - Antibiotic prophylaxis.
  - Immunisation.

## Skills

- Infection control
  - Types of isolation
  - Indications for isolation
- Clinical assessment and management of the febrile patient.
- Laboratory investigation of patient with infection
- Management of sepsis
  - Ability to follow local antibiotic medications guidelines
  - Influenza and Nasopharyngeal Swabs
  - Liaise with public health following specific clinical diagnosis
- Tuberculin skin testing
- Interpret gram stains
- Interpret malaria smear

## Assessment

- Infection control and prevention (Induction day/course, including vaccination)
- DOPS: Tuberculin skin testing.
- MRCPI

### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through an ID post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Infection in special hosts: infections in intensive care; surgical, orthopaedic, obstetric/gynaecological infection
- Opportunistic infections in the immunocompromised individual
- Taking microbiology and virology anogenital samples from men and women.
- Up to date on emergency Infectious Diseases
- Aware of pandemic preparations
- Where possible, rotation to sexual health outpatients clinic

## Intensive Care

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage patients in Intensive Care Units under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in Intensive Care.

### Knowledge

- Pharmacological therapies utilised in ICU setting
- Indications, management and complications of
  - Fluids for resuscitation
  - Antibiotic drugs and antibiotic policies
  - Analgesics
  - Sedatives
  - Muscle relaxants
  - Inotropic agents
  - Anti-arrhythmic drugs, including digoxin
  - Diuretics
- Indications and limitations of currently available monitoring and assessment methods
- Modes of ventilations – NIPPV, CPAP, IPAP etc.
- Social and ethical implications of determining the need for intensive care therapy and withdrawal of same.
- Interdisciplinary Team Working

### Skills

- ACLS

### Assessment & Learning Methods

- MTD
- Post call rounds
- ICU

#### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through an ICU post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Vascular access
- Knowledge of indications, function and monitoring of ventilators

## Medical Oncology

### Objectives:

- Describe common cancers in terms of:
  - Epidemiology
  - Genetic patho-physiology
  - Clinical features
  - Risk factors
  - Primary and secondary prevention
  - Investigations and interpretation of common test in Oncology.
  - Pharmacological and non-pharmacological therapies
  - Describe the principles of cancer staging
  - Describe basic principles of RCTs
  - Perform procedures related to oncology investigation and management.
  - Observe invasive tests and management related to oncology.
  - Manage oncology emergencies
  - Perform procedures related to haematology investigation and management.
  - Observe invasive tests and management related to haematology.
  - Manage haematology emergencies

### Knowledge

- Epidemiology; genetic patho-physiology; clinical features; risk factors; primary
- Secondary prevention; pharmacological and non-pharmacological therapies of common cancers.
- Principles of cancer staging
- Principles of anticancer therapies
- Indications and interpretation of common tests in Oncology
- Indications, complications and side-effects of:
  - endocrine chemotherapy,
  - cytotoxic chemotherapy,
  - radiation therapy
  - empirical and targeted anti-microbial therapy in neutropaenic sepsis (See also Haematology curriculum)
  - Blood and blood products (See also Haematology Curriculum)
  - Anticoagulants (See also Cardiology/Haematology curriculum)
  - Medications used in palliation (See also Palliative Care curriculum)
- Medical complications of treatment
- Oncological emergencies
- Basic principles of randomised clinical trials.(See also pharmacology)
- Principles of palliative therapies: the aims of treatment and the concept of balance between efficacy and toxicity/quality of life. (See also Palliative care curriculum)

### Skills

- Management of oncology emergencies
- Acute management of extravasation.
- Performance of thoracocentesis, paracentesis tap and lumbar puncture

### Assessment & Learning Methods

- MDT
- Appropriate Referral
- Acute emergencies in medical oncology
- MRCPI

**ROTATION SPECIFIC**

(Areas required when trainee rotates through an oncology post. These areas are not required for the general curriculum or for the MRCPI exam)

- Multidisciplinary management of oncology emergencies, as part of a team

## Neurology

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common neurological conditions under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in neurology.

### Knowledge

- Anatomy and pathophysiology of the Nervous system
- Epidemiology; patho-physiology; clinical features; risk factors; primary and secondary prevention; pharmacological and non-pharmacological therapies of common neurological conditions:
  - Cerebrovascular disorders
    - Stroke/TIA
    - Subarachnoid haemorrhage
  - Cerebral cortex disease
    - Epilepsy/ Non-epileptic seizure
    - Dementia
    - Acute confusional state See also Geriatric Medicine/Neurology/Psychiatry curricula)
    - Multiple sclerosis
  - Movement Disorders
    - Parkinson's disease and Parkinsonism
    - Tremors, chorea, myoclonus
    - Wilson's disease
    - Huntington's disease
- Brainstem and Cranial nerve disorders
- Brain tumours
- Spinal Cord disease
  - Motor Neuron Disease
  - Polio
  - Nerve root lesions
  - Radiculopathy
  - Myelopathy
- Peripheral nerve disorders
  - Mononeuropathy
  - Polyneuropathy
  - Peripheral neuropathy
- Neuromuscular junction disorders
  - Myasthenia gravis
  - Lambert-eaton syndrome
  - Myopathies
  - CNS Inflammatory disorders
  - Cerebral vasculitis
  - CNS Infections
  - Meningitis
  - Encephalitis
  - Brain abscess
  - Migraine
- Clinical evaluation of common neurological symptoms:
  - headache
  - blackouts
  - dizziness
  - confusion
  - poor memory
  - weakness
  - involuntary movements
  - pins and needles and
  - pain

- Recognition and early treatment of neurological emergencies:
  - coma
  - raised intracranial pressure
  - status epilepticus
  - infection
  - visual failure
  - spinal cord compression
  - neuromuscular respiratory failure, including Guillain-Barre syndrome
  - neoplastic disease
  - Wernicke-Korsakoff encephalopathy
  - Giant cell arteritis.
- Assessment of brain death and an appreciation of the ethical issues associated with managing brain death
- Indications and interpretation of specialised neurology tests
- Indications for neurosurgery.
- Rehabilitation
- Pharmacological therapy of common neurology conditions
  - Indications, management and complications of:
  - Anti-epileptic medications
  - Anti-Parkinson's agents
  - Acetylcholinesterase inhibitors
  - Anti-platelet therapy (See also Cardiology curriculum)
  - Anticoagulants (See also Cardiology curriculum)
  - Immunosuppressants (See also Immunology curriculum)
  - Corticosteroids (See also Immunology curriculum)
  - Empirical and targeted therapy of intracranial infections

## Skills

- Lumbar puncture

## Assessment & Learning Methods

- MTM
- Rehabilitation
- MRCPI Part I and II

### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through a neurology post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Observation of EEG/EMG/nerve conduction studies
- Knowledge of rehabilitation and care paths

## Occupational Medicine

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common conditions in Occupational Medicine under supervision.

### Knowledge

- Taking an occupational history
- Occupational hazards to health
- Acute toxic exposures
- Chronic toxic exposures
- Distinction between hazard and risk
- Pathophysiology of occupational disease
- Occupational respiratory disease
- Occupational skin disease
- Occupational cancer
- Occupational neurological disease
- Occupational liver and kidney disease
- Musculoskeletal problems including work related upper limb disorder;
- Assessment of fitness for work:
- Medical aspects of fitness to work
- Fitness standards e.g. fitness to drive
- Infectious disease and fitness to work / infection control
- Occupational stress: self management (in line with Medical Council's domains of good practice)

### Assessment & Learning Methods

- MRCPI

## Palliative Medicine

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common conditions in Palliative Medicine under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in Palliative Medicine.

### Knowledge

- Definition of palliative medicine (W.H.O. 2002)
- Principles of palliative medicine.
- Role of palliative medicine in malignant and non-malignant disease
- Role of palliative medicine in the early stages of a progressive disease
- Integration of palliative medicine with hospital and community based specialists
- Role of palliative medicine with hospital and community based specialists
- End of life care
- Prevention of bereavement morbidity
- Physical aspects of palliative medicine:
  - Natural history, including symptomatology of common incurable diseases.
  - Pain control, including assessment, psychological factors, treatment and monitoring.
  - Clinical features; risk factors; prevention; pharmacological and non-pharmacological therapies of common conditions in palliative care:
    - Gastrointestinal symptoms
      - mouth problems
      - anorexia
      - nausea and vomiting
      - intestinal obstruction
      - constipation
      - diarrhoea
    - dyspnoea
    - hypercalcaemia
    - incontinence
    - Mood related symptoms
      - anxiety
      - depression
    - delirium
    - malignant effusions and ascites
- Clinical features; risk factors; prevention; pharmacological and non-pharmacological therapies of Palliative care emergencies:
  - delirium
  - haemorrhage
  - acute severe pain
  - spinal cord compression
  - seizures
  - superior venal caval obstruction
- Pharmacological aspects of palliative medicine:
  - WHO classification of analgesics, dose equivalents and alternate routes of administration.
  - Anti-emetics
  - Laxatives
  - Anxiolytics
  - Sedatives
  - Anticholinergic agents
  - Steroids

- Psychosocial aspects of palliative medicine:
  - Communication with terminally ill patients, their relatives and health care professionals with respect to information transfer, therapeutic strategy
  - Quality of life issues and their relevance in late stage disease.
  - Psychosocial responses of patients and relatives in illness and bereavement.
  - The support of families in bereavement.
- Religious and cultural aspects and influences on patient and family attitudes to death and dying.
- Ethical issues in palliative care and end-of-life care
- Interdisciplinary team working

## Skills

- Communication skills
- Interaction with multi-disciplinary teams including community-based Palliative Care services and GPs.

## Assessment & Learning Methods

- Ethics, safe prescribing skills and transfusion Programme
- Pain Management Course (non mandatory)

### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through a palliative care post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Enhanced communication skills and multi-disciplinary team work

## Physical Symptoms in Absence of Organic Disease

**Objectives:** The trainee will be able to assess and appropriately investigate a patient to conclude that organic disease is unlikely, counsel sensitively, and formulate an appropriate management plan

### Knowledge

- Knowledge of symptoms that commonly have a non-organic component
- Hyperventilation syndrome
- Underlying precipitants to non-organic presentations: life stresses, hypochondriacism
- Differentiate somatisation disorders from malingering
- Knowledge of the phenomenon of excessive symptoms in the context of established disease e.g. breathlessness in well controlled asthma
- Recognise the pattern of repetition that non-organic presentations can have
- Recognise the importance of the Primary Care team in assessment and management
- Recognise the cultural differences in somatoform disorders

### Skills

- Adopt attitude that presentation has organic cause until otherwise proven, and assess and investigate as appropriate
- Appreciate the implications of unnecessary tests in terms of cost and iatrogenic complications
- Safely determine after appropriate work up that a patient is likely have a non-organic cause for their presentation
- Take a full history, including associated symptoms of anxiety or depression and past medical assessments
- Identify underlying psychiatric disease: psychosis, depression, or anxiety
- Formulate a management plan for acute period of care
- Respect the distress the mode of presentation may be causing
- Adopt a non-judgemental sensitive attitude when engaging in counselling a patient over the likelihood of non-organic disease
- Involve psychiatric services when appropriate

### Assessment and Learning Methods

- MRCPI

## Psychiatry

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common conditions in Psychiatry under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in Psychiatry.

### Knowledge

- Epidemiology; patho-physiology; clinical features; risk factors; primary and secondary prevention; clinical assessment; pharmacological and non-pharmacological therapies of common psychiatry conditions:
  - Psychosis disorders
  - Substance abuse
  - Mood and anxiety disorders
  - Grief reactions
  - Acute confusional state (see also Acute medicine/Neurology/Geriatric Medicine curricula)
  - Cognitive dysfunction
  - Organic brain disease
  - Self-harm;
  - Personality disorders;
  - Physical and sexual abuse
- Indications and interpretation of common tests in psychiatry
- Pharmacological therapy of common psychiatry conditions
- Indications, management and complications of:
  - anxiolytics
  - antidepressants
  - antipsychotic agents

### Skills

- Early Assessment and referral of patients with psychiatric disorders

### Assessment & Learning Methods

- MRCPI

## Rehabilitation Medicine

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common conditions in rehabilitation medicine under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in Rehabilitation Medicine.

### Knowledge

- World Health Organisation International Classification of Functioning (WHO-ICF) and measurement of impairment, disability and societal participation
- Epidemiology; patho-physiology; clinical features; risk factors; primary and secondary prevention; pharmacological and non-pharmacological therapies of common conditions in rehabilitation medicine:
  - Brain injury
  - Spinal cord injury
  - Limb loss
  - Stroke
- Indications and interpretation of common tests in Rehabilitation Medicine
- Assessment and management of
  - sphincter dysfunction
  - autonomic dysreflexia
  - spasticity
  - challenging behaviour
  - visual and perceptual disorders
  - language disorders
  - post-traumatic and stroke epilepsy
  - psychiatric illness after major neurological injury and limb loss
  - chronic pain after major neurological injury and limb loss
  - low awareness states
  - sexual dysfunction after acquired major disability
- Methods of assessment for specialised seating, prosthetics, orthotic provision and other therapeutic aids
- Technique and application of psychometric testing
- Knowledge of the community services available to support those with disability
- Ethical Issues – autonomy, consent, cognitive capacity and substituted decision making (See also Palliative Care curriculum)
- Legal framework of driving, vehicle licensing and awarding of the primary medical certificate (PMC – visiting HSE area medical officers)
- Pre-driving and on-road driving assessment
- Vocational rehabilitation – assessment of potential and delivery of the service in the Rehabilitative Training Unit on-site
- Roles of clinical colleagues in the rehabilitation process
- Comprehensive disability assessment
- Pharmacological therapy of common conditions in rehabilitation medicine
  - Indications, management and complications of:
  - Anti-spasmodics
  - Anti-seizure agents (See also Neurology curriculum)
  - Analgesics (See also Palliative care curriculum)
  - Anti-platelet therapy (See also cardiology/haematology curriculum)
  - Anticoagulants(See also cardiology/haematology curriculum)

## Skills

- Interdisciplinary working
- Judicious use of pharmacological agents for management of disability

## Assessment & Learning Methods

- Attendance at small group teaching and journal club
- Case based discussion (CBD)
- Mini-CEX
- MRCPI

### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through a rehabilitation medicine post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Comprehensive disability assessment
- Administration of functional and cognitive outcome measures
- Therapeutic botulinum toxin intramuscular injection
- Complex discharge planning and community liaison
- DOPS:
  - botulinum toxin injection
  - refill of baclofen pump
- Observed management of goal-setting conference

## Renal Medicine

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common renal conditions under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in renal medicine.

### Knowledge

- Anatomy and physiology of the kidneys and renal tract.
- Epidemiology; patho-physiology; clinical features; risk factors; primary and secondary prevention; pharmacological and non-pharmacological therapies of common renal conditions:
  - Hypovolaemia
  - Hypervolaemia
  - Electrolyte disorders
  - Acid-base homeostasis
  - Hypercalcaemia
- Acute kidney injury
  - Acute tubular necrosis
  - Acute Glomerulonephritis
  - Acute tubulo-interstitial disease
  - Acute vasculitis
  - Acute obstructive uropathy
  - Contrast nephropathy
- Chronic kidney disease
- Chronic glomerulonephritis
- Chronic nephrotic syndromes
- Diabetic nephropathy (including stages)
- Hypertension and Hypertensive nephropathy
- Inherited renal disease
- Analgesic nephropathy
- Reflux nephropathy
- Chronic tubulo-interstitial disease
- Urinary tract infections
- Renal stone disease
- Obstructive nephropathy
- Dialysis:
  - Available modalities
  - Indications for acute and chronic renal replacement therapy.
  - Long-term complications
- Renal transplantation:
  - Indications
  - Long term complications of renal transplantation
- Indications and interpretation of common renal tests.
- Pharmacological therapy of common renal conditions:
- Indications, management and complications of
  - Immunosuppressants
  - Anti-hypertensive agents
  - ACE inhibitors
  - Electrolyte replacement
  - Common nephrotoxic agents
  - Radiology contrast agents

**Skills**

- Urine microscopy

**Assessment & Learning Methods**

- MRCPI

**ROTATION SPECIFIC**

**(Areas required when trainee rotates through a nephrology post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Observation of renal replacement therapy
- Observation of renal biopsy
- Observation and interpretation of renal pathology
- Intensive Therapy Unit attendance
- Observation of formation of dialysis access (fistula/tunnelled venous lines/peritoneal venous catheters)
- Work-up of a patient pre-transplant

## Respiratory Medicine

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common respiratory conditions under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in respiratory medicine

### Knowledge

- Anatomy and physiology of respiratory system.
- Epidemiology; patho-physiology; clinical features; risk factors; primary and secondary prevention; pharmacological and non-pharmacological therapies of common respiratory conditions.
- Airway diseases
- Asthma
- Chronic obstructive pulmonary disease
- Obstructive sleep apnoea
- Parenchymal disease
  - Interstitial lung disease
  - Smoking-related chronic lung disease
- Respiratory and non-respiratory sleep disorders
- Pulmonary vascular disease
  - Pulmonary embolism/infarction
  - Pulmonary hypertension
  - Pulmonary vasculitides
  - Arteriovenous malformation
- Pleural disease
  - Pleural effusion
  - Pneumothorax
  - Pleural plaques/asbestosis
  - Pleural malignancy
- Lung and thoracic malignancy
- Respiratory tract infections
  - Upper respiratory tract infections
  - Pneumonia
  - Opportunistic infections
  - Acute and chronic parenchymal infection
  - Tuberculosis,
  - Nontuberculosis mycobacterial infections
  - Fungal infections
- Chronic suppurative lung disease
  - Cystic fibrosis
  - Bronchiectasis
  - Lung abscess
  - Empyaema
- Respiratory Failure
- Respiratory emergencies
- Adult Respiratory Distress Syndrome
- Occupational lung disease
- Pulmonary involvement in systemic diseases e.g. sarcoidosis
- Pulmonary Rehabilitation
- Lung transplantation
- Indications and interpretation of specialised respiratory tests
- Pharmacological therapy of common respiratory conditions
- Indications for bronchoscopy, thoracoscopy and needle biopsy

- Indications, management and complications of:
  - Bronchodilators
  - Corticosteroid preparations
  - Leukotriene antagonists
  - Oxygen (portable, long-term oxygen therapy)
  - Empirical and targeted anti-microbial therapy in pulmonary infection
  - Anti-TB agents

## Skills

- Application of principles of safe oxygen therapy and non-invasive ventilation including NIPPV and CPAP
- Tuberculin skin testing
- Interpretation of arterial blood gas analysis

## Assessment & Learning Methods

- MDT meetings
- Case-based discussion
  - Arterial blood gas interpretation
- MRCPI

### **ROTATION SPECIFIC**

**(Areas required when trainee rotates through a respiratory post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Observation and/or performance of bronchoscopy and needle biopsy
- Chest drain insertion
- Pleural aspiration under ultrasound guidance
- Observation of cardio-pulmonary function testing
- Observation and interpretation of sleep studies

## Rheumatology

**Objective:** the trainee should have an understanding of, and demonstrate ability to assess and manage common rheumatological conditions under supervision. The trainee should be able to perform, interpret and/or observe procedures related to investigation and management in rheumatology.

### Knowledge

- Epidemiology; patho-physiology; classification; clinical features; risk factors; primary and secondary prevention; pharmacological and non-pharmacological therapies of common rheumatological conditions:
  - Rheumatoid arthritis
  - Infectious arthritis
  - Osteoarthritis.
  - Seronegative spondylarthropathies
  - Systemic lupus erythematosus,
  - scleroderma (systemic sclerosis)
  - Sjogren's syndrome,
  - Poly- and dermatomyositis,
  - Vasculitis, including temporal arteritis and polymyalgia rheumatica
  - Gout, pseudogout, and chondrocalcinosis
  - Rheumatic manifestations of diseases in other medical specialties, e.g. cancer, diabetes, viral infections (including AIDS)
  - Osteoporosis, osteomalacia, and Paget's disease
  - Low back pain and soft tissue rheumatism
- The evaluation and management of acute rheumatological emergencies, including:
  - Joint pain
  - Acutely hot joint.
  - Acute low back pain.
  - Vasculitis (in association with a connective tissue disorder).
  - Temporal arteritis.
  - Cervical myelopathy in rheumatoid arthritis.
  - Fever in a patient with an underlying connective tissue disease.
- Basic knowledge of the epidemiology and socio-economic impact of musculoskeletal disorders.
- Pharmacological therapy of common rheumatologic conditions
  - Indications, management, monitoring and complications of:
    - Analgesics
    - Anti-inflammatory medications
    - Disease-modifying agents
    - Immunosuppressant agents
    - Corticosteroids
    - Biological agents
- The relative role of orthopaedic surgery,
- The workings of a multidisciplinary team (including physiotherapy, nursing, occupational therapy, social work).
- Means of evaluating and addressing disability and handicap (including the provision of aids, adaptations, and social support). Providing psychological support.

### Skills

- Interpretation of joint fluid
- Interpretation of autoimmune screening

### Assessment & Learning Methods

- MRCPI

**ROTATION SPECIFIC**

**(Areas required when trainee rotates through a rheumatology post. These areas are not required for the general curriculum or for the MRCPI exam)**

- Recognition of erosive arthritis on radiographic films
- Monitoring of disease modifying therapy treatments
- Knee joint aspiration

## 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 the Medical Training coordinator.

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
<b>Section 1 - Training Plan</b>				
<b>Personal Goals Plan</b> (Copy of agreed Training Plan for your current training year signed by both Trainee & Trainer)	Required	1	Training Post	Form 052
<b>Personal Goals Review Form</b>	Required	1	Training Post	Form 137
<b>Weekly Timetable</b> (Sample Weekly Timetable for Post/Clinical Attachment)	Required	1	Training Post	Form 045
<b>On Call Rota</b>	Required	1	Training Post	Form 064
<b>Section 2 - Training Activities</b>				
<b>Outpatient Clinics</b> (1 clinic per week)	Required	40	Year of Training	Form 001
<b>Ward Rounds/Consultations</b>				Form 002
Ward rounds (minimum 2 per week)	Required	80	Year of Training	Form 002
Post-call ward rounds/handover (average 4 per month)	Required	40	Year of Training	Form 002
<b>Emergencies/Complicated Cases</b> (average per month 40 acute assessments and/or admissions)				
Acute abdominal emergencies	Required	1	Training Programme	Form 003
Acute ear, nose and throat problems	Required	1	Training Programme	Form 003
Acute GI Bleed	Required	8	Training Programme	Form 003
Acute respiratory emergencies/Non-invasive ventilation	Required	5	Training Programme	Form 003
Acute rheumatological conditions	Required	1	Training Programme	Form 003
Acute Stroke/TIAs	Required	5	Training Programme	Form 003
Chest pain	Required	5	Training Programme	Form 003
Collapse	Required	5	Training Programme	Form 003
Diabetic emergencies	Required	5	Training Programme	Form 003
DVT	Required	1	Training Programme	Form 003

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
PE	Required	1	Training Programme	Form 003
Poisoning and self harm	Required	5	Training Programme	Form 003
Psychiatric crises	Required	5	Training Programme	Form 003
Traumatic brain injury	Required	1	Training Programme	Form 003
<b>Procedures/Practical Skills/Surgical Skills</b>				
Abdominal paracentesis	Required	1	Training Programme	Form 004
Lumbar puncture	Required	5	Training Programme	Form 004
Performance & Interpretation of ECG's (resting and exercise)	Required	5	Training Programme	Form 004
Pleural aspiration – under ultrasound	Desirable	5	Training Programme	Form 004
<b>Additional/Special Experience Gained</b>	Desirable	1	Training Programme	Form 005
<b>Relatively Unusual Cases</b>	Desirable	1	Training Programme	Form 019
<b>Chronic Cases/Long term care</b>	Desirable	1	Training Programme	Form 066
<b>Section 3 - Educational Activities</b>				
<b>Mandatory Courses</b>				
Advanced Cardiac Life Support (ACLS)	Required	1	Training Programme	Form 006
BST Leadership in Clinical Practice	Required	1	Training Programme	Form 006
Ethics, Prescribing Skills & Blood Transfusion for GIM	Required	1	Training Programme	Form 006
Infection control (Can be part of hospital induction day)	Required	1	Training Programme	Form 006
<b>Non – Mandatory Courses</b>				
How to Survive Acute Take	Desirable	1	Training Programme	Form 007
Other	Desirable	1	Training Programme	Form 007
<b>In-house activities</b>				Form 011
Grand rounds (minimum 1 per month)	Required	10	Year of Training	Form 011
MDT Meeting	Required	40	Year of Training	Form 011
Specialty meeting (one hour per week)	Required	40	Year of Training	Form 011
In-house training programme	Required	1	Training Programme	Form 011
Attend Academic Programme Scheme Tutorials	Required	9	Year of Training	Form 160
View Academic Programme Video Tutorials on TPN	Required	4	Year of Training	Form 160
<b>Examinations</b>				Form 012
MRCPI (Part I and Part II written and clinical)	Required	1	Training Programme	Form 012
<b>Formal Teaching Activity</b>				
Deliver undergraduate/intern teaching (1 hour per month)	Required	10	Year of Training	Form 013

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Name
Engagement in peer to peer learning	Desirable	10	Year of Training	Form 013
<b>Research</b>	Desirable	1	Training Programme	Form 014
<b>Audit activities and Reporting</b> (1 per year either to start or complete, Quality Improvement (QI) projects can be uploaded against audit)	Desirable	1	Training Programme	Form 135/152
<b>Publications</b>	Desirable	1	Year of Training	Form 016
<b>Presentations</b>				
Oral or poster presentation (e.g. Grand Rounds, research club, national meetings)	Required	2	Year of Training	Form 017
<b>National/International meetings (Attendance)</b>	Desirable	1	Training Programme	Form 010
<b>Additional Qualifications</b>	Desirable	1	Training Programme	Form 065
<b>Section 4 - Assessments</b>				
<b>DOPS</b>				Form 021
Abdominal paracentesis	Required	1	Training Programme	Form 021
Lumbar puncture	Required	1	Training Programme	Form 021
Performance & Interpretation of ECGs (resting and Exercise)	Required	1	Training Programme	Form 021
Pleural aspiration under ultrasound	Desirable	1	Training Programme	Form 021
Additional Specialty Specific requirement depending on rotation:				
Cardiology: Observe Pacemaker insertion	Desirable	1	Training Programme	Form 021
Clinical Immunology: Immunology Course	Desirable	1	Training Programme	Form 021
Dermatology: Skin Biopsy	Desirable	1	Training Programme	Form 021
Endocrinology & Diabetes: Attendance at foot clinics	Desirable	1	Training Programme	Form 021
Gastroenterology & Hepatology: Observe Endoscopy & Acute GI Presentation	Desirable	1	Training Programme	Form 021
Haematology: Bone marrow aspiration	Desirable	1	Training Programme	Form 021
Intensive Care: Vascular access/ICU/CCU attendance	Desirable	1	Training Programme	Form 021
Medical Oncology: Acute emergencies in medical oncology	Desirable	1	Training Programme	Form 021
Palliative Medicine: Setting up continuous subcutaneous infusion (CSI)	Desirable	1	Training Programme	Form 021
Renal Medicine: Observation of dialysis	Desirable	1	Training Programme	Form 021
Respiratory/Infectious diseases: Tuberculin skin testing	Desirable	1	Training Programme	Form 021
Rheumatology: Knee joint aspiration	Desirable	1	Training Programme	Form 021
<b>CBD</b> (over a minimum of 2 training posts)	Required	2	Year of Training	Form 020
<b>Mini-CEX</b> (over a minimum 2 training posts)	Required	2	Year of Training	Form 023
<b>End-of-post Assessments</b>	Required	1	Training Post	Form 092
<b>Annual Review Form</b>	Required	1	Year of Training	Form 141

