



**INSTITUTE  
OF MEDICINE**

ROYAL COLLEGE OF  
PHYSICIANS OF IRELAND

HIGHER SPECIALIST TRAINING IN

# Endocrinology & Diabetes Mellitus & General Internal Medicine

OUTCOME-BASED EDUCATION – OBE CURRICULUM



**This Curriculum of Higher Specialist Training in Endocrinology & Diabetes Mellitus & General Internal Medicine was developed in 2023 by a working group led by Professor Fidelma Dunne, and Dr Ronan Canavan, National Specialty Directors, and the RCPI Education Department. The Curriculum undergoes an annual review process by the National Specialty Directors and the RCPI Education Department. The Curriculum is approved by the Specialty Training Committee and the Institute of Medicine.**

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## National Specialty Directors' Foreword

The Endocrinology & Diabetes & General Internal Medicine HST Programme aims to deliver expert Endocrinologists with a broad range of clinical and academic skills. This curriculum is designed to produce well-rounded graduates with the ability to manage all common endocrine presentations and disorders while supporting the development of subspecialty expertise and academic interests.

The Outcome Based Education (OBE) project concerns the transition of the current minimum requirements model of the neurology curriculum and training across to OBE which is more in line with other countries in Europe and the US. It is one of the key initiatives of the RCPI's Strategic Plan 2021 – 2024 which aims to enhance the quality of Ireland's BST and HST training programmes to ensure they are aligned with international best practices and standards. This will involve a considerable change to both the structure and assessment of the curriculum and as such requires input from multiple stakeholders to ensure that any changes are valid and robust.

It was decided that focussed workshops would take place involving both NSDs, current SpR representatives, and Endocrinology trainers from several training sites in order to ensure that multiple perspectives were captured, and discussion could take place. These in-person meetings took place in the RCPI in June 2023, and February 2024 and comprised several specific agenda items.

We began by conducting an initial review of the specialty section of the current Endocrinology & DM curriculum, with specific emphasis on the content. Following a robust review of the current curriculum and benchmarking exercises to compare against other comparable jurisdictions the content was pared back into nine main training areas. The nine core specialty areas were identified as Diabetes, Obesity and Lipids, Thyroid, Calcium and Bone, Pituitary and Electrolytes, Reproductive Health, and Gender Care, Adrenal, Neuroendocrine Diseases and Rare Endocrine Disorders, and Service Development and Data Management.

When these core areas were identified we then began outlining specific training outcomes for each of the nine areas. Specialist input was sought for each of the nine core areas to ensure they were accurately reflected the current and future needs of training.

We would like to thank all the trainers and trainees that took part in this process. We are excited to be part of the ongoing development of the Endocrinology & DM & GIM HST programme with our colleagues in the RCPI and our Trainers around the country.

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## 1. INTRODUCTION

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*This section includes an overview of the Higher Specialist Training programme and of this Curriculum document.*

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### 1.1. Purpose of Training

This programme is designed to provide training in Endocrinology & Diabetes Mellitus and General Internal Medicine (GIM) in approved training posts, under supervision and to fulfil agreed curricular requirements over the course of 5 years. Each post provides a trainee with a named trainer and the programme is under the direction of the National Specialty Director(s) in Endocrinology.

### 1.2. Purpose of the Curriculum

The purpose of the Curriculum is to guide the Trainee towards achieving the educational outcomes necessary to work as an independent consultant. The Curriculum defines the relevant processes, content, outcomes, and requirements to be achieved. It stipulates the overarching goals, outcomes, expected learning experiences, instructional resources and assessments that comprise the Higher Specialist Training (HST) programme. It provides a framework for certifying successful completion of HST programme.

In keeping with developments in medical education and to ensure alignment with international best practice and standards, the Royal College of Physicians (RCPI) has implemented an Outcomes Based Education (OBE) approach. This curriculum design differs from traditional minimum time-based requirement designs in that the learning process and desired end-product of training (outcomes) are at the forefront of the design to provide the essential training opportunities and experiences to achieve those outcomes.

### 1.3. How to use the Curriculum

Trainees and Trainers should use the Curriculum as a basis for goal-setting meetings, delivering feedback, and completing assessments, including appraisal processes (Quarterly Assessments/End of Post Assessment, End of Year Evaluation). Therefore, it is expected that both Trainees and Trainers familiarise themselves with the Curriculum and have a good working knowledge of it.

Trainees are expected to use the Curriculum as a blueprint for their training and record specific feedback, assessments, and training events on ePortfolio. The ePortfolio should be updated frequently during each training placement.

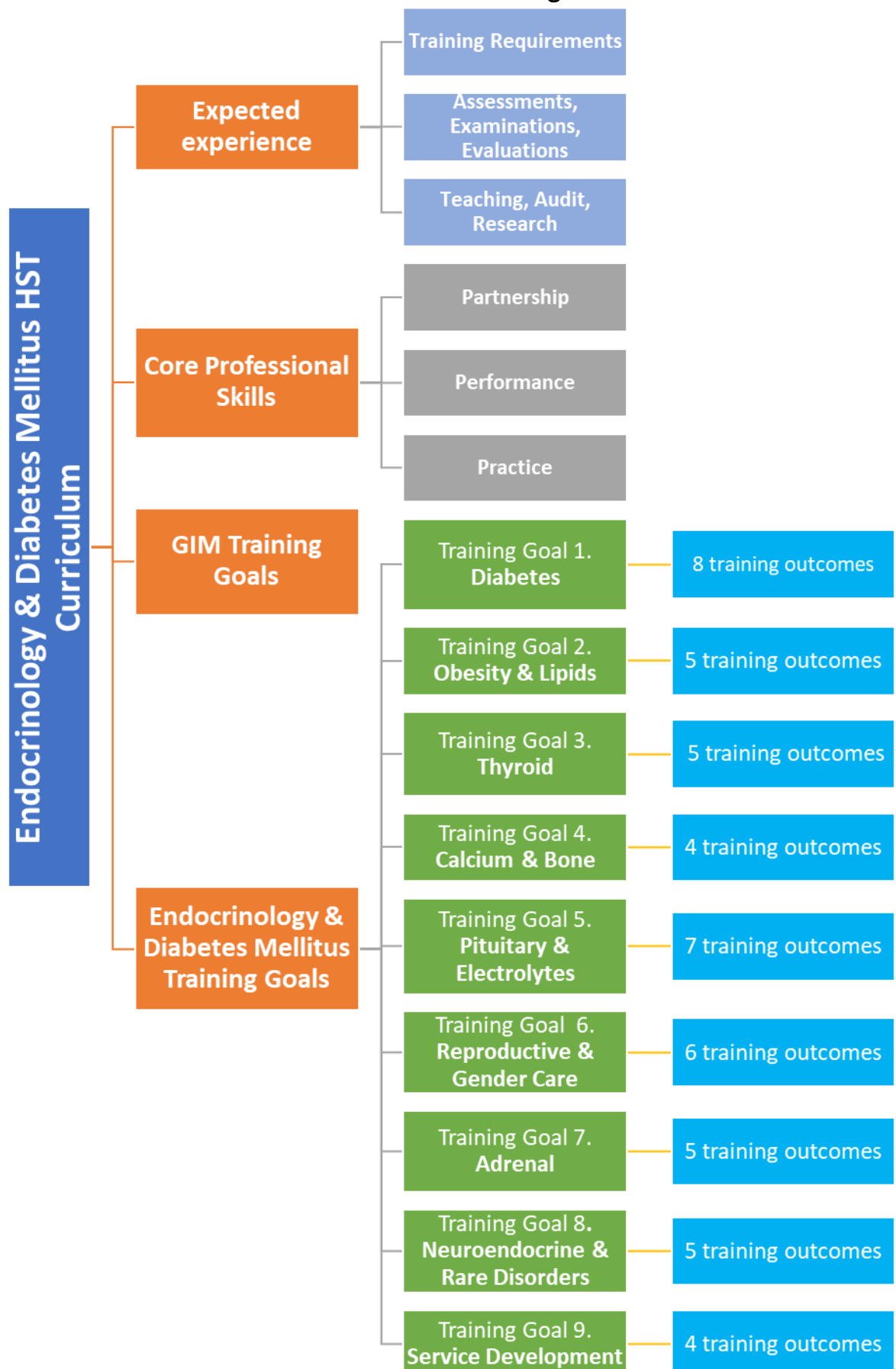
It is important to note that ePortfolio is a digital repository designed to reflect Curriculum requirements. It facilitates recording of progress through HST and evidence that training is valid and appropriate. While a complete ePortfolio is essential for HST certification, Trainees and Trainers should always refer to the Curriculum in the first instance for information on the requirements of the training programme.

**Please note:** It is the responsibility of the Trainee to keep an up-to-date ePortfolio throughout the programme as it reflects their individual training experience and it documents that they have successfully met training standards as expected by the Medical Council.

### 1.4. Reference to rules and regulations

Please refer to the following sections within the Endocrinology and Diabetes Mellitus HST Training Handbook for rules and regulations associated with this post. Policies, procedures, relevant documents, and Training Handbooks can be accessed on the RCPI website following [this link](#).

## 1.5. Overview of Curriculum Sections and Training Goals



## 2. EXPECTED EXPERIENCE

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*This section details the training experience and the service provision tasks that all Trainees are expected to complete throughout the Higher Specialist Training.*

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## 2.1. Duration & Organisation of Training

The duration of Higher Specialist Training (HST) in Endocrinology & Diabetes Mellitus and General Internal Medicine (GIM) is five years, four clinical years and one year of which may be gained from a period of full-time research or other academic endeavour during the Out of Clinical Programme Experience (OCPE).

**Core Training:** Trainees must spend the first two years of Endocrinology training in clinical posts in Ireland before undertaking any period of research or OCPE. The earlier years of training will usually be directed towards acquiring a broad general experience of Endocrinology and GIM under appropriate supervision. An increase in the content of hands-on experience follows naturally, and, as confidence is gained and abilities are acquired, the trainee will be expected to assume a greater degree of responsibility and independence.

Trainees on HST programme in Endocrinology & Diabetes Mellitus are given a rotation of posts at the start of the programme which encompasses the first two years of training at a minimum. Each rotation will provide the trainee with experience in different hospitals so as to acquire the broad range of training required. A degree of flexibility to meet the individual training needs is possible especially towards the end of the training programme following discussion with the NSDs. Each post within the programme will have a named trainer/educational supervisor and programmes will be under the direction of the NSDs for Endocrinology or, in the case of GIM, the Regional Specialty Advisor. Programmes will be as flexible as possible consistent with curricular requirements, for example to allow the trainee to develop a sub-specialty interest. The experience gained through rotation around different departments is recognised as an essential part of HST. A Trainee may not remain in the same unit for longer than 2 years of clinical training; or with the same trainer for more than 1 year.

**Out of Clinical Programme Experience: All trainees should do one a minimum of one OCPE year.** Trainees can undertake one, or more years out of their HST programme to pursue research, further education, special clinical training, lecturing experience, or other relevant experiences.

OCPE must be preapproved, and retrospective credit cannot be applied.

It must be noted that even if trainees can undertake more than one year to complete their OCPE of choice, RCPI would award a maximum of 12 months of training credits towards the achievement of CSCST. In certain circumstances, RCPI may award no credits. The decision of whether to award credits for one year may differ from specialty to specialty and it is discretionary by the NSDs of each respective specialty.

For more information on OCPE, please refer to the RCPI website ([here](#)).

**Training Principles:** During the period of training the Trainee must take increasing responsibility for seeing patients, undertaking ward consultations, making decisions, and operating at a level of responsibility which would prepare them for practice as an independent Consultant. Over the course of HST, Trainees are expected to gain experience in a variety of hospital settings.

**Core Professional Skills:** Generic knowledge, skills and attitudes support competencies that are common to good medical practice in all the medical and related specialties. It is intended that all Trainees should re-affirm those competencies during HST. No timescale of acquisition is imposed, but failure to make progress towards meeting these important objectives at an early stage would cause concern about a Trainee's suitability and ability to become an independent specialist.

**Dual Specialty Training:** GIM training is expected to be completed in the first 3 years of the programme. One of these years is a GIM specific year. During the other two years trainees must complete their GIM training as per their expected experience, including general medicine on-call commitment for acute unscheduled/emergency care with attendance at relevant post-take rounds.

**Acute Medicine:** There must be evidence of direct supervision of the activity of the more junior members of the “on-take” team and a minimum of 10 (480 per year) new acute medical assessments and admissions during the 24-hour period are expected during the GIM specific year. In addition, the trainee is expected to record a minimum of 480 new acute medical assessments and admissions over the course of their two Dual Specialty training years. The trainee will be expected to have ongoing care/responsibility for a proportion of the patients for the duration of the clinical inpatient journey as well as the follow up post discharge. In this capacity the trainee should develop skills in non-technical aspects of care including discharge planning and end of life care.

**Inpatient Responsibilities:** The trainee will have front line supervisory responsibilities for endocrinology and general medical inpatients. This will require supervising and supporting the activities of the more junior members (SHO/Intern) of the clinical team. In addition to personal ward rounds, a minimum of two ward rounds with the consultant each week is expected for educational experience. Ongoing responsibility for shared care of the team’s inpatients whilst in the ITU/HDU/CCU is also essential. If this is not possible in a particular hospital/training institution, opportunity to obtain this experience in other institutions or with a period of secondment is required.

**Outpatient Responsibilities:** The trainee is expected to have personal responsibilities for the assessment and review of endocrinology and general medicine outpatients with a minimum of at least two consultant led clinics per week. The trainee should assess new patients; access to consultant opinion/supervision during the clinic is essential.

**Procedures:** The trainee should acquire the practical skills that are needed in the management of medical emergencies, particularly those occurring out of normal working hours. Some exposure to these skills may have occurred during the period of BST but experience must be consolidated, and competencies reviewed during HST.

**Essential & Additional Experience:** The trainee will be expected to have had experience of/be familiar with the management of a wide range of cases presenting to hospitals as part of an unselected acute medical emergency “take”. Whilst trainees will not need to be expert in all these areas, they will be expected to be able to plan and interpret the results of immediate investigations, initiate emergency therapy and triage cases to the appropriate specialist care. These emergency situations have been considered under each specialty section and are indicative of what should be covered but are not prescriptive. It should form the basis of regular discussions between the trainee and trainers as training progresses. The various clinical situations listed for experience have been divided into those, which are considered “essential” and others, which are “additional”.

**Recording of Evidence of training:** The target numbers for training items in the following sections represent the minimum recording requirement to document evidence of relevant and varied clinical experience; it is understood that actual number of training experiences is likely to be well in excess of these numbers.

## 2.2. Clinics list, Ward Rounds and Consultations, Training Activities

Attendance at Clinics, participation in Ward Rounds and Patient Consultations are required elements of all posts throughout the programme. The timetable and frequency of attendance should be agreed with the assigned trainer at the beginning of the post.

This table provides an overview of the expected experience a Trainee should gain regarding clinics attendance, ward rounds and consultations. All these activities should be recorded on ePortfolio using the respective form.

While it is recognised the opportunity to experience these training activities may not be available at every site, these activities can be captured at other sites over the course of the training programme, providing the expected experience number is met.

ON CALL ROTA		
Unselected Admissions for General Internal Medicine (Completed in first 3 years)		
	Expected Experience	ePortfolio Form
GIM Year	Record at least 480 over the course of GIM specific year	Clinical Activities
Dual Specialty Years	Record at least 480 over the course of 2 Dual Specialty years	
OUTPATIENT CLINICS		
Type	Expected Experience	ePortfolio Form
General Endocrine (including, but not limited to Adrenal, Pituitary, Thyroid)	Attend at least 1 per week of training in Endocrinology, record attendance	Clinics
General Diabetic	Attend at least 1 per week of training in Endocrinology, record attendance	
Reproductive Endocrine	Attend at least 10 over the course of HST, record attendance	
Antenatal Diabetic	Attend at least 10 over the course of HST, record attendance	
Diabetic/Endocrine/Paediatric/Young Adult	Attend at least 10 over the course of HST, record attendance	
Renal Diabetes	Attend at least 10 over the course of HST, record attendance	
Foot Clinic/MDT	Attend at least 10 over the course of HST, record attendance	
Patient education and daycare	Observe at least 5 instances in the first year of Endocrinology Training, record on ePortfolio	
WARD ROUNDS AND CONSULTATIONS		
Type	Expected Experience	ePortfolio Form
Consultant Led Ward Rounds	Participate in at least 40 per year, record attendance	Clinical Activities
SpR Led Ward Rounds	Lead at least 40 per year, record attendance	
Consultations	Record at least 40 per year	
CASES		
Type	Expected Experience	ePortfolio Form
Metabolic Bone Cases	Assess at least 10 cases over the course of HST. record on ePortfolio	

Rare Cases of Dyslipidaemia	Assess at least 4 cases over the course of HST, record on ePortfolio	Cases
Active complex ophthalmic cases (diabetic and endocrine)	Assess at least 10 cases over the course of HST, record on ePortfolio	
Diabetic Emergency Cases	Assess and manage at least 10 cases per each year of Endocrinology Training, record on ePortfolio	
Endocrine Emergency Cases	Assess and manage at least 10 cases per each year of Endocrinology Training, record on ePortfolio	
LABORATORY EXPERIENCE		
Type	Expected Experience	ePortfolio Form
Endocrine Laboratory	4 sessions attendance in Laboratory with a range of endocrinology testing, over the course of HST	Laboratory Activities
PROCEDURES, PRACTICAL SKILLS		
Type	Expected Experience	ePortfolio Form
Insulin Tolerance Test	Perform at least 5 over the course of HST, record on ePortfolio	Procedures, Skills & DOPS
ACTH Stimulation Test	Perform at least 5 over the course of HST, record on ePortfolio	
Supervision of Prolonged Fast	Supervise at least 5 cases over the course of HST, record on ePortfolio	
LH-RH Testing	Assess at least 5 over the course of HST, record on ePortfolio	
Observation of fine Needle Aspiration of thyroid nodules - Ultrasound guided	Observe at least 1 over the course of HST, record on ePortfolio	

### 2.3. In-house commitments

Trainees are expected to attend a series of in-house commitments as follows:

- Attend at least **1 Grand Rounds per month** over the course of HST
- Attend at least **1 Journal Club per month** over the course of HST
- Attend at least **1 MDT Meetings with other specialties per month**, over the course of HST
- Attend at least **1 Multidisciplinary Conference (allied health professions working team), per month**, over the course of HST
- Attend and participate in a variety of learning experiences including but not limited to seminars, lectures, case discussions, case conferences etc... (1 per month over the course of HST)

## 2.4. Research, Audit and Teaching experiences

Trainees are expected to complete the following activities:

- Deliver at least **12 teaching sessions** (to include tutorials, lectures, bedside teaching, etc.) per year of HST
- Complete **1 Audit** per clinical year of HST
- Complete **1 Quality Improvement Project** over course of HST
- Deliver **1 Oral presentation or Poster presentation** (hospital wide forum, journal clubs, inter hospital opportunities) per each year of HST
- Attend **1 National or International Meeting** (Can be recorded as study day), per each year of HST
- Complete **1 research project**, over the course of HST
- Contribute to at least **2 publications**, over the course of HST

## 2.5. Teaching attendance

Trainees are expected to attend all the courses and study days as detailed in the [Teaching Appendix](#), at the end of this document.

Trainees should attend at least 6 Endocrinology and Diabetes Study Days per year of Endocrinology Training. Attend at least 3 Endocrinology and Diabetes Study Days during the GIM year.

## 2.6. Evaluations, Assessments, and Examinations

- Complete personal goals evaluation at the start of each clinical training year, targeting training opportunities that are available at each clinical site, and focusing on personal development and completion of ePortfolio.
- Complete **4 quarterly assessments per training year with their designated trainer** (1 assessment per quarter)
- Complete **1 end of post evaluation at the end of each post** (this can replace the quarterly assessment in happening at the end of a post)
- Complete **1 end of year evaluation at the end of each training year**
- Complete all the **workplace-based assessments** as appropriate, and as agreed with Trainer. It is recommended to **record at least 1 WBA** (CBD, MiniCEX, or DOPS) **per quarter** to be reviewed at the Quarterly Assessment.
- For more information on evaluations, assessment, and examinations, please refer to the [Assessment Appendix](#) at the end of this document.
- It is mandatory for all trainees to sit either the **European Board Examination in Endocrinology, Diabetes and Metabolism**, or the **UK Speciality Certificate Exam in Endocrinology and Diabetes in Year 3 or 4** of HST

## 2.7. Summary of Expected Experience

Experience Type	Expected	ePortfolio form
Rotation Requirements	Complete all agreed requirements related to the post.	n/a
Personal Goals	At the start of each post complete a Personal Goals form on ePortfolio, agreed with your trainer and signed by both Trainee & Trainer.	Personal Goals
On-call Commitments	Partake in on-call commitments in Endocrinology & DM for the full duration of the programme and GIM where appropriate and record attendance on ePortfolio.	Clinical Activities
Clinics	Attend Endocrinology & DM and Subspecialty Clinics as agreed with your trainer and record attendance per each post on ePortfolio.	Clinics
Consultations	Gain experience and develop competence in all aspects of Endocrinology & DM consults with increasing independence over the course of training and as agreed within each post, recording on ePortfolio.	Clinical Activities
Ward Rounds	Gain experience and competence in management of medical inpatients, acknowledging the role of clinical handover and leading out on ward rounds as agreed with your trainer and record attendance per each post on ePortfolio.	Clinical Activities
Emergencies/Complicated Cases	Gain experience in clinical emergencies/complicated cases as indicated above and as agreed with Trainer. Record cases on ePortfolio	Cases
Procedures, Practical/Surgical Skills	Gain experience in procedural, practical skills as indicated above and as agreed with Trainer. Record experience on ePortfolio	Procedures, Skills & DOPS
Additional/Special Experience	Gain additional/special experience as indicated above and as agreed with Trainer. Record cases on ePortfolio	Additional Special Experience/Cases
Management Experience	Gain experience in clinical management and leadership functions as agreed with Trainer. Record attendance per each post on ePortfolio	Management Experience
Deliver Teaching	Deliver Tutorials, Lectures and Bedside teaching. Record a minimum of 12 examples per year of HST on ePortfolio	Delivery of Teaching
Research	Actively participate in research, aim to complete 1 research project over the course of HST. Seek opportunities to publish papers and present research at conferences or national/international meetings.	Research Activities
Publication	Contribute to at least 2 publications over the course of HST.	Additional Professional Activities
Presentation	Deliver 1 oral or poster presentation per each year of HST.	Additional Professional Activities
Audit and QI	Complete 1 Audit per clinical year and 1 Quality Improvement Project over the course of HST.	Audit and QI
Attendance at Hospital Based Learning	Attend at least 1 Grand Rounds per month of HST, attend at least 1 Journal Club per month of HST. Attend at least 1 MDT Meetings per month of HST. Attend and	Attendance at Hospital Based Learning

	participate in a range of learning experiences including but not limited to seminars, lectures, case discussions/conferences (1 per month of HST). Record attendance on ePortfolio.	
National/International Meetings	Attend 1 per year of HST (can be recorded as study day).	Additional Professional Activities
Teaching Attendance	Attend courses and Study Days as detailed in the Teaching Appendix. Trainees should attend the formal teaching opportunities available within Endocrinology & DM and GIM HST.	Teaching Attendance
Workplace-based Assessment	Complete all the workplace-based assessment as agreed with your trainer and complete the respective form.	CBD/DOPS/Mini-CEX
Examinations	It is mandatory for all trainees to sit either the <b>European Board Examination in Endocrinology, Diabetes and Metabolism, or the UK Specialty Certificate Exam in Endocrinology and Diabetes at Year 3 or 4</b> of HST	Examinations
Evaluations and Assessments	Complete a Quarterly Assessment/End of post assessment with your trainer 4 times in each year. Discuss your progress and complete the form.	Quarterly Assessments/End-of-Post Assessments
End of Year Evaluation	Prepare for your End of Year Evaluation by ensuring your portfolio is up to date and your End of Year Evaluation form is initiated with your trainer.	End of Year Evaluation

### 3. CORE PROFESSIONAL SKILLS

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*This section includes the Medical Council guidelines for medical professional conduct, regarding Partnership, Performance and Practice.*

*These principles are woven within training practice and feedback is formally provided in the Quarterly Evaluations, End of Post, End of Year Evaluation.*

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## Partnership

### Communication and interpersonal skills

- Facilitate the exchange of information, be considerate of the interpersonal and group dynamics, and have a respectful and honest approach
- Engage with patients and colleagues in a respectful manner
- Actively listen to the thoughts, concerns, and opinions of others
- Consider data protection, duty of care and appropriate modes of communication when exchanging information with others

### Collaboration

- Collaborate with patients, their families, and your colleagues to work in the best interest of the patient, for improved services and to create a positive working environment
- Work cooperatively with colleagues and team members to deliver an excellent standard of care
- Seek to build trust and mutual respect with patients
- Appropriately share knowledge and information, in compliance with GDPR guidelines
- Take on-board available, relevant feedback

### Health Promotion

- Communicate and facilitate discussion around the effect of lifestyle factors on health and promote the ethical practice of evidence-based medicine
- Seek up-to-date evidence on lifestyle factors that:
  - negatively impact health outcomes
  - increase risk of illness
  - positively impact health and decrease risk factors
- Actively promote good health practices with patients individually and collectively

### Caring for patients

- Take into consideration patient's individuality, personal preferences, goals, and the need to provide compassionate and dignified care
- Be familiar with
  - Ethical guidelines
  - Local and national clinical care guidelines
- Act in the patient's best interest
- Engage in shared decision-making and discuss consent

## Performance

### Patient safety and ethical practice

- Put the interest of the patient first in decisions and actions
- React in a timely manner to issues identified that may negatively impact the patient's outcome
- Follow safe working practices that impact patient's safety
- Understand ethical practice and the medical council guidelines
- Support a culture of open disclosure and risk reporting
- Be aware of the risk of abuse, social, physical, financial, and otherwise, to vulnerable persons

### Organisational behaviour and leadership

- The activities, personnel and resources that impact the functioning of the team, hospital, and health care system
- Understand and work within management systems
- Know the impacts of resources and necessary management
- Demonstrate proficient self-management

### Wellbeing

- Be responsible for own well-being and health and its potential impact on the provision of clinical care and patient outcomes
- Be aware of signs of poor health and well-being
- Be cognisant of the risk to patient safety related to poor health and well-being of self and colleagues
- Manage and sustain your own physical and mental well-being

## Practice

### **Continuing competence and lifelong learning**

- Continually seek to learn, improve clinical skills and understand established and emerging theories in the practice of medicine
- Meet career requirements including those of the medical council, your employer, and your training body
- Be able to identify and optimise teaching opportunities in the workplace and other professional environments
- Develop and deliver teaching using appropriate methods for the environment and target audience

### **Reflective practice and self-awareness**

- Bring awareness to your actions and decisions and engage in critical appraisal of your own work to drive lifelong learning and improve practice
- Pay critical attention to the practical values and theories which inform everyday practice
- Be aware of your own level of practice and your learning needs
- Evaluate and appraise your decisions and actions with consideration as to what you would change in the future
- Seek to role model good professional practice within the health service

### **Quality assurance and improvement**

- Seek opportunities to promote excellence and improvements in clinical care through the audit of practice, active engagement in and the application of clinical research and the dissemination of knowledge at all levels and across teams
- Gain knowledge of quality improvement methodology
- Follow best practices in patient safety
- Conduct ethical and reproducible research

## 4. GENERAL INTERNAL MEDICINE SECTION

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*This section includes the General Internal Medicine requirements that the Trainee should demonstrate proficiency in by the end of the higher specialist training.*

*In order to demonstrate proficiency, it is recommended to agree the most appropriate training and assessment methods with the assigned Trainer.*

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**By the end of Higher Specialist Training** the Trainee will be able to identify and treat immediate life-threatening causes of common medical presentations, form a differential diagnosis for non-life-threatening cases and effectively manage the patient including further investigation and appropriate referral. They will have acquired a broad range of procedural and clinical skills to manage diverse presentations.

### Assessment and Learning Methods

Learning opportunities during HST are through:

- Self-Directed Learning
- Attendance at Study days and other educational supports within the training program
- Participation in In-house activities
- Unselected acute on call
- General Medicine outpatient clinics
- Department education sessions (black box, journal club, tutorials)
- Completion of Required courses
- Attendance at additional learning events such as recommended courses and masterclasses

Progress is assessed through:

- Case Based Discussion (CBD)
- ePortfolio
- Quarterly trainer assessment
- Annual assessment
- Direct Observation of Procedural Skills (DOPS)
- Mini Clinical Examination Exercise (MiniCEX)

### In the Acute Setting

During the course of HST the trainee will encounter common acute presentations and will be expected to demonstrate the following competencies:

- Recognising and assessing urgency
- Stabilising the patient
- Prioritising
  - Tasks
  - Investigations
- Managing co-existing morbidities
- Making appropriate referrals
- Decision making and appropriate delegation

The presentations listed in this section represent the most common acute presentations and conditions currently seen in Irish hospitals, accounting for over 95% of admissions. It is expected that

HST trainees in general internal medicine will have a comprehensive knowledge of, and be able to provide a differential diagnosis for, these conditions.

**Presentations**

1. Shortness of breath
2. Cough
3. Chest Pain
4. Blackout/ Collapse/ Dizziness
5. The frail older patient in the acute setting
6. Abdominal Pain
7. Fever
8. Alcohol and substance dependence or withdrawal
9. Falls and Decreased mobility
10. Weakness and Paralysis
11. Headache
12. Limb Pain and/or Swelling
13. Nausea and Vomiting
14. Seizure
15. Diarrhoea
16. Delirium/Acute confusion
17. Acute Psychological illness
18. Palpitations
19. Hepatitis or Jaundice
20. Gastrointestinal Bleeding
21. Haemoptysis
22. Rash
23. Acute Back Pain
24. Poisoning and Drug Overdose
25. Hyper-glycaemia

**Emergency Management**

Recognising and managing emergency cases including:

- Acute Coronary Syndrome
- Acute Kidney Injury
- Acute Respiratory Failure
- Acute Seizure
- Anaphylaxis / Angioedema
- Cardio-respiratory arrest
- Critical electrolyte abnormalities (calcium, sodium, potassium)
- Hypo- or Hyperglycaemia
- Sepsis and septic shock
- Stroke/ TIA
- The unconscious patient
- Unstable hypotensive patient

**Skills and Knowledge in General Medicine Setting**

**By the end of Higher Specialist Training**, the Trainee should know life threatening causes, clinical feature, classifications, investigations, and management, including indications for urgent referral, for common general medicine presentations. The following outlines commonly associated features, causes and/or routes of investigation for these presentations, both acutely and for ongoing case management, the trainee is expected to know and the competencies they are expected to demonstrate.

When a patient presents with a general medicine complaint the trainee is expected to demonstrate an ability to:

- Assess their signs and symptoms, formulating a differential diagnosis
  - Take history as part of an investigation
  - Undertake primary assessment
  - Recognise and assess urgency
  - Undertake secondary assessment
- Initiate appropriate investigations
  - Interpret results for common investigations
- Initiate appropriate treatment, including stabilising the patient where necessary
- Manage co-existing morbidities
- Manage on-going cases including
  - confirming a diagnosis for those not requiring urgent referral
  - assessing response to initial treatment
  - recognising signs to escalate management when needed
- Appropriately refer based on:
  - Response to treatment
  - Local guidelines
  - Culture
  - Self-awareness of their own knowledge and ability
  - Services available
- Provide ongoing management of the case

## Shortness of breath

When a patient presents with shortness of breath a trainee is expected to demonstrate knowledge of the clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for common causes.

- Life threatening causes of breathlessness
  - Airway Obstruction
  - Acute severe asthma
  - Acute exacerbation of COPD
  - Pulmonary oedema
  - Tension pneumothorax
  - Acute presentations of Ischaemic heart disease
  - Acute severe left ventricular failure
  - Dysrhythmia
  - Pulmonary embolus
  - Cardiac tamponade
  - Metabolic acidosis

## Cough

When a patient presents a cough a trainee is expected to demonstrate knowledge of the clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Common causes of acute cough
  - Viral and Pertussis type cough
  - Acute bronchitis
  - Pneumonia
  - Tuberculosis
  - Lung cancer
  - Understand the relevance of subacute and chronic cough
  - Common causes (Asthma, Upper airway, GORD)
  - When to refer for assessment of lung cancer
  - Consideration of Interstitial lung disease



## Chest Pain

When a patient presents with chest pain a trainee is expected to demonstrate knowledge of the clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for common causes.

- Life threatening causes of chest pain
  - Myocardial infarction
  - Dissecting aortic aneurysm
  - Pulmonary emboli
  - Tension pneumothorax
  - Oesophageal rupture
- Clinical features of:
  - Cardiac chest pain
  - Chest pain caused by respiratory disease and oesophageal rupture
  - Chest pain caused by gastrointestinal disease
  - Chest wall pain
  - Functional chest pain

## Blackout / Collapse / Dizziness

When a patient blacks out, collapses or presents with dizziness a trainee is expected to demonstrate that they know the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Stroke
  - Cerebral infarction
  - Primary intracerebral haemorrhage
  - Subarachnoid haemorrhage
- Syncope
  - Cardiac causes (arrhythmia, cardiogenic shock)
  - Vasovagal syncope
  - Postural hypotension (e.g., drugs, neurocardiac, autonomic)
  - Localised vascular disease (posterior circulation)
  - Metabolic causes (e.g., hypoglycaemia)
- Seizures and epilepsy

### Management of the frail older patient in the acute setting

When a frail older patient presents a trainee is expected to demonstrate knowledge of the appropriate approach to assessment, risk factors, appropriate investigations and necessary management, including indications for urgent referral, for this population.

- Understand the broad differential diagnosis and management of complex multi-morbid illness in older patients
- Approach to investigation and management of recurrent Falls
- Non-pharmacological and pharmacological management of behavioural complications of dementia
- Investigation of causes, non-pharmacological and pharmacological management of Delirium
- Polypharmacy and inappropriate prescribing in older patients (e.g. renal dose adjustment)
- Medical management of nursing home residents- identifying aspiration risk
- Palliative care and pain management in the acute setting
- Acute stroke thrombolysis delivery and criteria for referral for intravascular intervention
- Completion of NIHSS stroke scale

### Abdominal Pain

When a patient presents with abdominal pain a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Initial assessment of abdominal pain
- Differential Diagnosis:
  - Intra-abdominal
    - Gastrointestinal
    - Vascular (aneurysm, ischemia)
    - Urological
    - Gynaecological
  - Extraabdominal causes of pain
- Ability to identify and initiate management of life-threatening conditions causes of abdominal pain
- Indications for surgical consultation and urgent referral
- Identifying constipation and urinary retention in older patients

## **Fever**

When a patient presents with fever a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Recognize the symptoms and signs of sepsis
- Identify common causes of fever
  - Infection
  - Non-infectious including PE, Drugs, vasculitis,
- Delivery of initial management of septic patient
- Knowledge of the choice of empiric and infection targeted antibiotics

## **Alcohol and substance dependence or withdrawal**

When a patient presents with dependence or withdrawal a trainee is expected to demonstrate that they know the classifications and necessary management, including indications for referral.

- Recognition
- Psychosocial dysfunction
- Autonomic disturbances
- Stress and panic disorders
- Insomnia and sleep disturbance
- Understand the role of psychiatrist and referral to rehabilitation services

## **Falls and Decreased mobility**

When a patient falls or presents with decreased mobility a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations, and necessary management, including indications for urgent referral, for the common causes.

- Common medical and social causes of falls in medical patients
- Complications of falls
  - Fractures including the neck of the femur
  - Intracranial injury
  - Rib fracture and pneumothorax
  - Loss of mobility and independence

### Weakness and Paralysis

When a patient presents with weakness or paralysis a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Stroke/ space occupying lesion
- Spinal cord injury
- Underlying neurological causes: e.g. multiple sclerosis, Guillain-Barre syndrome
- Infections and diseases causing weakness

### Headache

When a patient presents with headache a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Clinical classifications of headache
- Headache with altered neurological and focal signs
- Headache with features suggestive of raised intracranial pressure
- Headache with papilloedema
- Headache with fever
- Headache with extracranial signs
- Headache with no abnormal signs
- Drugs and toxins

### Limb Pain and/or Swelling

When a patient presents with limb pain or swelling a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- As a result of injury
- As a result of an underlying medical condition
  - Undifferentiated inflammatory arthritis

## Nausea and Vomiting

When a patient presents with nausea and vomiting a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Understanding of common causes
  - Abdominal
    - Acute Gastroenteritis
    - PUD
    - Pancreatitis
    - Acute hepatitis
    - Bowel obstruction
  - Central Causes (CNS)
  - Poisoning and Medications
- Management
  - Identification of underlying cause
  - Control of symptoms
  - Treating dehydration

## Seizure

When a patient presents with seizures a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Causes
  - Unprovoked seizures/epilepsy
  - Seizures associated with metabolic, toxic and system illness
  - Cerebral hypoxia
  - Seizures associated with drugs and toxic substances
- Management
  - Emergency supportive treatment
  - Anticonvulsant treatment
  - Work up of first presentation with seizure
  - Understand driving implications for patients with seizures

## Diarrhoea

When a patient presents with diarrhoea a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Classification
  - Osmotic
  - Secretory
  - Exudative
- Causes
  - Infectious
  - Inflammatory
  - Ischemic
  - Malignant
- Complications
- Management
  - Acute management
  - Knowledge of appropriate investigations
  - Recognition of associated complications
  - Role of antibiotics
  - When to refer to gastroenterology.

## Delirium/Acute confusion

When a patient presents with delirium or acute confusion a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Clinical features of acute confused state- differentiating delirium, dementia, depression and psychosis
- Causes of delirium
- Use of screening instruments for delirium and/or cognitive impairment
- Clinical features of acute delirium
- Clinical features of acute functional psychosis
- Causes of confused state associated with alcohol abuse- delirium tremens, Wernicke's encephalopathy
- Drug induced/related confusion/delirium
- Bacterial meningitis, Viral encephalitis
- Subarachnoid haemorrhage/ subdural haematoma

### Social issues

When a patient presents with social issues a trainee is expected to demonstrate knowledge of the appropriate approach to assessment, risk factors, appropriate investigations and necessary management, including indications for urgent referral, for this population.

- Managing medical conditions with an uncooperative patient
- Identifying potential elder abuse
- Recognising substance abuse
- Basic principles of psychiatry
- Recognising an at risk patient

### Palpitations

When a patient presents with palpitations a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Anxiety
- Exercise induced
- In relation to pre-existing conditions including
  - Thyroid disease
  - Anaemia
  - Fever
  - Dehydration
  - Low blood sugar
  - Low blood pressure
- Resulting from medications or toxins
- Hormonal changes
- After prior myocardial infarct
- Coronary artery disease
- Other heart problems including congestive heart failure, heart valve or heart muscle problems

### Hepatitis or Jaundice

When a patient presents with hepatitis or jaundice a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Incubation and prodromal phase
- Virus-specific
- Toxic hepatitis
- Autoimmune
- Acute liver failure

### Gastrointestinal Bleeding

When a patient presents with gastrointestinal bleeding a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Understanding of the initial assessment and stabilization of patients with GI bleeding
- Understanding of haemovigilance and blood transfusion protocols
- Upper gastrointestinal bleeding including
  - Peptic ulcer Disease
  - Gastritis
  - Esophageal varices
  - Mallory-Weiss tears
  - Gastrointestinal cancers
  - Inflammation of the gastrointestinal lining from ingested material
- Lower gastrointestinal bleeding including
  - Diverticular disease
  - Gastrointestinal cancers
  - Inflammatory bowel disease (IBD)
  - Infectious diarrhoea
  - Angiodysplasia
  - Polyps
  - Haemorrhoids and anal fissures



## Haemoptysis

When a patient presents with haemoptysis a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Recognition and Management of massive Haemoptysis
- Common causes of haemoptysis
  - Acute and chronic bronchitis
  - Tuberculosis
  - Lung cancer
  - Pneumonia
  - Bronchiectasis
  - Pulmonary Embolus
  - Alveolar Haemorrhage (vasculitis)

## Rash

When a patient presents with a rash a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Urticaria
- Anaphylaxis and Angio Oedema
- Erythroderma and exfoliation
- Psoriasis and seborrheic/contact dermatitis
- Purpura and vasculitis
- Blistering eruptions
- Infections and the skin

## Acute Back Pain

When a patient presents with acute back pain a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Non-specific acute back pain
- Causes of chronic low back pain
- Neurologic findings in back pain
- Identifying serious aetiologies of back pain e.g.,
  - Cancer
  - Fracture
  - Infection

- Cauda equina syndrome

### Poisoning and Drug Overdose

When a patient presents with poisoning or overdose a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations, and necessary management, including indications for urgent referral, for the common causes.

- Diagnostic clues in the assessment of overdoses
- Identification of toxic agent (paracetamol, SSRI, benzodiazepines, opiates, amphetamines, TCAD)
- Immediate management
- Mental health assessment and definitive care

### Hyper-glycaemia

When a patient presents with hyper-glycaemia a trainee is expected to demonstrate knowledge of the life-threatening causes, clinical feature, classifications, appropriate investigations, and necessary management, including indications for urgent referral, for the common causes.

- Symptoms of acute hyper-glycaemia
- Recognition and Management of diabetic ketoacidosis
- Recognition and management of Hyperosmolar non-ketotic hyperglycaemic states

## Procedures

**By the end of Higher Specialist Training** the Trainee will be expected to develop proficiency in common procedures required for general internal medicine.

### Abdominal paracentesis under ultrasound

### ECG Interpretation

### Emergency DC cardioversion

- Up to date ACLS training to cover:
  - Necessity of Synchronised Shock
  - Starting voltage
  - Safe use of Defibrillator

### Emergency care of tracheostomy

- In cases of:
  - Cardiac arrest
  - Dealing with a compromised airway

### Femoral venous lines with ultrasound guidance

- Ultrasound guided femoral venous line placement
- Anatomical markers for femoral veins
- Safe cannulation of vein
- Secure line in place/review position on X-ray

### Intercostal drain under ultrasound

- Anatomical markings
- Insertion of intercostal tube (small bore seldinger)
- Connection to underwater seal and secure in place
- Assessment and management of drain
- Safe removal of the tube

### Joint aspiration

- Sterile field
- Fluid analysis
- Injectable compounds

### Lumbar puncture

- Anatomical markers
- Cannula selection
- Safe puncture including appropriate preparation
- Measurement of CSF pressure
- Removal of samples and interpretation of results
- Management of post lumbar puncture headache

**Non-invasive Ventilation**

- Principles of BIPAP and CPAP
- Monitoring and limitations
- Mask fitting
- Understanding of pressures

**Pleural and ascitic fluid aspiration under ultrasound**

- Safe approach and role of ultrasound guidance
- Puncture pleural / peritoneal space
- Withdrawal of fluid

**General Internal Medicine Procedures Requirements Map**

Trainees are expected to complete and record a minimum number of certain procedures which are essential in general internal medicine.

This table summarises the **minimum expected training per each procedure over the course of HST**, simply log the procedures on ePortfolio and complete the related DOPS Assessment as indicated:

Activity	Expected Experience & DOPS Assessments	ePortfolio form name
BIPAP/CPAP	Complete 10 procedures and 1 DOPS over the course of HST	Procedures, Skills and DOPS
Emergency DC cardioversion	Complete 10 procedures and 1 DOPS over the course of HST	
ECG interpretation	Complete 50 procedures and 1 DOPS over the course of HST	
Joint aspiration	Complete 4 procedures and 1 DOPS	
Lumbar puncture	Complete 20 procedures and 1 DOPS over the course of HST	
Abdominal paracentesis – under ultrasound	Complete 4 procedures and 1 DOPS over the course of HST (Desirable)	
Femoral venous line placement – under ultrasound	Complete 1 procedure and 1 DOPS over the course of HST (Desirable)	
Pleural aspiration – under ultrasound	Complete 4 procedures and 1 DOPS over the course of HST (Desirable)	
Intercostal drain Insertion – under ultrasound	Complete 1 procedure	

## 5. SPECIALTY SECTION - ENDOCRINOLOGY & DIABETES MELLITUS TRAINING GOALS

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*This section includes the Endocrinology & Diabetes Mellitus Training Goals that the Trainee should achieve by the end of the Higher Specialist Training.*

*Each Training Goal is broken down into specific and measurable Training Outcomes.*

*Under each Outcome there is an indication of the **suggested** assessment/learning opportunities.*

*In order to achieve the Outcomes, it is recommended to agree the most appropriate assessment methods with the assigned Trainer.*

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## Training Goal 1 – Diabetes

**By the end of the second year of Endocrinology Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for common presentations of diabetes.

**By the end of Training,** the Trainee is expected to diagnose, manage, and implement appropriate treatment strategies for complicated and rare forms of diabetes.

### OUTCOME 1 – HISTORY TAKING AND EXAMINATION

A trainee will be able to take a focused and comprehensive history and examination (Year 2).

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 2 – DIAGNOSE AND MANAGE THE SPECTRUM OF DIABETES PRESENTATIONS AND PATIENTS' GROUPS

For the trainee to correctly diagnose and manage the spectrum of diabetes presentations and patients' groups.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 3 – APPROPRIATE USE OF SCREENING AND MANAGEMENT OF DIABETES COMPLICATIONS

For the trainee to enable screening for and correctly manage diabetes complications.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 4 – EFFECTIVE USE OF TECHNOLOGY

For the Trainee to demonstrate practical and effective use of technology.

#### Assessment and learning opportunities

- Feedback Opportunity
- DOPS
- CBD on the following: interpretation of CGM, on adjustment of insulin pump therapy
- Teaching Attendance (appropriate technology courses)

### OUTCOME 5 – KNOWLEDGE OF STRUCTURED EDUCATIONAL PROGRAMMES FOR DIABETES

For the Trainee to develop a working knowledge of structured education programmes for Diabetes to cover, but not limited to, diet and exercise.

#### Assessment and learning opportunities

- Feedback Opportunity
- CBD

- Teaching Attendance (Study Day or online modules, e.g., remote DAFNE, CODE, Discover, Desmond or equivalent)

#### OUTCOME 6 – PARTICIPATE IN MDT ACTIVITIES

For the Trainee to actively participate in multidisciplinary team activities.

##### Assessment and learning opportunities

- Feedback Opportunity
- MDT Attendance

#### OUTCOME 7 – EXPERIENCE AND KNOWLEDGE OF INTEGRATED DIABETES CARE

For the Trainee to gain experience and knowledge of integrated diabetes care.

##### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (CBD) as indicated by Trainer
- Provide evidence of training experience in community care settings
- Teaching Attendance (Study Day, etc.)

#### OUTCOME 8 – ADVOCATE FOR PATIENT EMPOWERMENT AND DEMONSTRATE EMPATHY

For the Trainee to advocate for patient empowerment and demonstrate empathy with the patient's lived experience.

##### Assessment and learning opportunities

- Feedback Opportunity
- Diabetes Patients' Groups

#### Presentations and conditions

The table below details the key conditions of Diabetes commonly associated with this Training Goal. Each of these should be regarded as a clinical context in which trainees should be able to demonstrate competence across the relevant training outcomes. For each condition/presentation, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management, and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Training Goal 1. Diabetes	
Diabetes Types	Type 1 Diabetes, inc. Latent Autoimmune Diabetes of Adulthood
	Type 2 Diabetes
	Monogenic Diabetes
	Gestational Diabetes
	New-onset Diabetes after Transplantation
	Steroid-induced Diabetes
	Cystic Fibrosis Related Diabetes
	Diabetes secondary to pancreatitis / post pancreatic resection
	Diabetes associated with other genetic conditions eg DIDMOAD

<b>Diabetes Presentations</b>	Diabetes ketoacidosis inc. euglycaemic ketoacidosis (secondary to SGLT2s, or in pregnancy)
	Hyperglycaemic Hyperosmolar state
	Severe Hypoglycaemia
<b>Medical Managements of Diabetes</b>	Glucose targets
	Blood pressure targets
	Cholesterol targets
	Activity goals
	Appropriate use and interpretation of Continuous Glucose Monitoring Sensors
	Appropriate use of Insulin pumps
	DAFNE / Carbohydrate Counting
	Optimising transition in Diabetes
	Awareness of Psychology needs / Recognising Diabetes Distress
	Pre-pregnancy planning for women with pre-existing diabetes
	Diabetes Management during pregnancy
	Peri-operative Diabetes management
<b>Diabetes Associated Complications</b>	Nephropathy
	Retinopathy
	Cardiovascular disease
	Cerebrovascular disease
	Lipohypertrophy
	Cognitive impairment
	Diabetes distress
	Diabetic Neuropathy - peripheral and autonomic (inc. Erectile dysfunction)
	Diabetes-related skin disorders (inc. Necrobiosis Lipoidica)
	Diabetes Foot problems (inc. Charcot joints)
	Musculoskeletal disorders (inc. Frozen Shoulder)



## Training Goal 2 – Obesity and Lipids

**By the end of the second year of Endocrinology Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for usual clinical presentations of hyperlipidaemia and obesity.

**By the end of Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for rare forms of hyperlipidaemia and for complex obesity.

### OUTCOME 1 – HISTORY TAKING AND EXAMINATION

For the Trainee to be able to take a focused and comprehensive history and examination (Year 2).

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 2 – DIAGNOSE AND MANAGE LIPID DISORDERS MEDICAL AND POST-SURGICAL TREATMENTS FOR OBESITY

For the Trainee to correctly diagnose and manage lipid disorders and medical and post-surgical treatments for obesity.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer
- Teaching Attendance (Study Days, Conferences etc.)

### OUTCOME 3 – APPROPRIATE SCREENING FOR AND MANAGEMENT OF OBESITY COMPLICATIONS

For the Trainee to correctly screen for and manage complications of obesity, including the psychological impact of the condition.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer
- Teaching Attendance (Study Days, Conferences etc.)

### OUTCOME 4 – ACTIVELY PARTICIPATE IN MDT ACTIVITIES

For the Trainee to actively participate in multidisciplinary team activities.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (CBD) as indicated by Trainer
- MDT Attendance

### OUTCOME 5 – ADVOCATE FOR PATIENT EMPOWERMENT AND DEMONSTRATE EMPATHY

For the Trainee to advocate for patient empowerment and demonstrate empathy with the patient's lived experience.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (CBD) as indicated by Trainer

### Types and Presentations

The table below details the key aspects of knowledge such as epidemiology, diet and exercise, clinical assessment, and treatments of complications of Obesity commonly associated with this Training Goal. Each of these should be regarded as a clinical context in which trainees should be able to demonstrate competence across the relevant training outcomes. For each condition/presentation, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management, and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Training Goal 2. Obesity	
<b>Epidemiology of Obesity</b>	Prevalence in children and adults in different regions globally
	The extent to which obesity contributes to other non-communicable diseases, especially diabetes, cardiovascular disease, and cancer.
	The relative contributions of genetic factors (to variations in obesity risk at any point in time) and environmental factors (to changes in population distribution of body weight over time).
	The need for population-level preventive strategies as well as individual-level treatment strategies.
<b>Importance of Diet and Physical Activity in Obesity Pathogenesis</b>	Awareness of the principles of energy intake and expenditure and the methods that are available to quantify these.
	Understanding the commercial determinants of health, and how these have profoundly influenced the food environment and population dietary behaviours.
	The importance of the built environment and transport infrastructure on population physical activity patterns.
	The role of structured lifestyle modification programmes in the treatment of obesity and its complications.
<b>Clinical Assessment of Obesity</b>	The importance and limitations of “body mass index” as an indicator of obesity severity
	Structured approaches to obesity severity staging, such as “Kings” and “Edmonton” systems
	Diagnostic and screening tests for obesity complications, particularly in relation to diabetes, fatty liver disease, insulin resistance, polycystic ovary syndrome and subfertility.
	Consideration of the added burden of self-stigma and weight bias internalisation for some patients
<b>Identification of Unusual Symptoms</b>	Consideration of secondary endocrine causes of obesity such as hypothyroidism and hypercortisolaemia.
	Awareness of clinical features in the history (consanguinity, hypothalamic polyphagia, young onset) and physical examination (hair colour, acanthosis, learning difficulty) suggestive of monogenic or syndromic “extreme phenotype” obesity.
<b>Treatment and Complications</b>	The need for compassionate, personalised, non-stigmatising communication with affected individuals using “patient first” language.

	The importance of the multidisciplinary team including surgical, nursing, physiotherapy, medical, occupational therapy, psychology, exercise physiology, dietetic expertise, as needed.
	Different metabolic-bariatric surgical techniques, their indications, contra-indications, mechanisms of action and early and late complications, especially bypass surgeries and sleeve gastrectomy.
	Different drug treatments for obesity, most importantly incretin-based therapies, their indications, contra-indications, mechanisms of action and early and late complications.
	Specific dietary approaches, including meal-replacement programmes, low-calorie, low-fat, and low-carbohydrate diet, and the difficulties with sustaining these.
	Consideration of the cost-effectiveness and health economic aspects of treatment delivery, and the impact of treatment on cardiovascular disease, diabetes, and other obesity complications.
	Management of suboptimal therapeutic responses to structured lifestyle modification, drug therapy or surgery, including combining therapies.

## Training Goal 3 – Thyroid

**By the end of the second year of Endocrinology Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for usual clinical hyperthyroid and hypothyroid presentations, and thyroid nodules.

**By the end of Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for complex thyroid disorders and thyroid cancer.

### OUTCOME 1 – HISTORY TAKING AND EXAMINATION

For the Trainee to be able to take a focused and comprehensive history and examination (Year 2).

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 2 – DIAGNOSE AND MANAGE THYROID DISORDERS

For the Trainee to correctly diagnose and manage thyroid disorders.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 3 – INTERPRET INVESTIGATIONS AND UNDERSTAND LIMITATIONS OF TESTS

For the Trainee to correctly interpret thyroid laboratory and radiology investigations and understand the limitations of diagnostic laboratory and radiology tests.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (CBD) as indicated by Trainer
- Present cases at MDT meetings

### OUTCOME 4 – ACTIVELY PARTICIPATE IN MDT ACTIVITIES

For the Trainee to actively participate in multidisciplinary team activities.

#### Assessment and learning opportunities

- Feedback Opportunity
- Present cases at MDT meetings

### OUTCOME 5 – ADVOCATE FOR PATIENT EMPOWERMENT AND DEMONSTRATE EMPATHY

For the Trainee to advocate for patient empowerment and demonstrate empathy with the patient's lived experience.

#### Assessment and learning opportunities

- Feedback Opportunity

## Presentations and conditions

The table below details the key measurement function tests and Thyroid conditions commonly associated with this Training Goal. Each of these should be regarded as a clinical context in which trainees should be able to demonstrate competence across the relevant training outcomes. For each condition/presentation, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management, and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Training Goal 3. Thyroid	
<b>Thyroid Function Tests</b>	TSH measurement and limitations of assay and limitations of measuring in isolation
	Free hormone measurement
	Influence of drugs on thyroid function tests
	Knowledge of antibodies in thyroid disease
	Interpretation of thyroid function tests in common thyroid conditions and understanding of discordant thyroid function tests
<b>Medical Management of Thyroid Conditions (including but not limited to)</b>	Graves' disease, including. <ul style="list-style-type: none"> <li>• Graves' disease treated with surgery</li> <li>• Graves' disease treated with radioactive iodine</li> <li>• Graves' disease with thyroid eye disease</li> <li>• Graves' disease with dermopathy</li> <li>• Graves' disease with acropachy</li> <li>• Graves' disease and pregnancy</li> </ul>
	Secondary Hyperthyroidism
	Subclinical Hyperthyroidism
	Thyroid Nodules
	Multinodular Goitre
	Non-Thyroidal illness
	Thyroiditis
	Hypothyroidism
	Subclinical Hypothyroidism
	Amiodarone and Thyroid Function
	Thyroid Cancer

## Training Goal 4 – Calcium and Bone

**By the end of the second year of Endocrinology Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for usual clinical presentations of calcium and bone disorders.

**By the end of Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for rare forms of calcium and bone disorders.

### OUTCOME 1 – HISTORY TAKING AND EXAMINATION

For the Trainee to be able to take a focused and comprehensive history and examination (Year 2).

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 2 – DIAGNOSE AND MANAGE CALCIUM AND BONE DISORDERS

For the Trainee to correctly diagnose and manage calcium and bone disorders.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 3 – INTERPRET LABORATORY AND RADIOLOGICAL INVESTIGATIONS INCLUDING DEXA

For the Trainee to correctly interpret laboratory and radiological investigations including DEXA.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (CBD) as indicated by Trainer
- Present cases at MDT meetings
- Teaching Attendance (Study Days, DEXA course)

### OUTCOME 4 – ADVOCATE FOR PATIENT EMPOWERMENT AND DEMONSTRATE EMPATHY

For the Trainee to advocate for patient empowerment and demonstrate empathy with the patient's lived experience.

#### Assessment and learning opportunities

- Feedback Opportunity

## Presentations and conditions

The table below details the key Calcium and Bone disorders commonly associated with this Training Goal. Each of these should be regarded as a clinical context in which trainees should be able to demonstrate competence across the relevant training outcomes. For each condition/presentation, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management, and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Training Goal 4. Calcium and Bone	
<b>Bone and Calcium conditions</b>	Osteoporosis including fragility fractures and atypical fractures
	Osteomalacia
	Primary Hyperparathyroidism
	Acute Hypercalcaemia
	Acute Hypocalcaemia
	Hypophosphataemia
	Paget's disease of bone
<b>Appropriate Investigations for Calcium and Bone work ups</b>	DXA Scan
	Isotope Bone Scan Report
	MRI and CT Reports
	Parathyroid US Report
	Parathyroid Uptake Scan Report
	Ga PET Report (desirable)
	Ionised / total adjusted calcium, phosphate, magnesium, alkaline phosphatase & bone-specific alkaline phosphatase, serum protein electrophoresis, etc..
	Secondary Osteoporosis workup
	Familiarity with list of national genomics programmes applicable to NGS panels
<b>Calcium and Bone Disorder managements and treatments</b>	Prescription of oral and IV bisphosphonates, denosumab, teriparatide, oestrogen / testosterone replacement including suitability for same, safety advice, monitoring, decision re end date and follow up treatment / monitoring as required
	Management of complications of above NB osteonecrosis of the jaw and atypical femoral fractures
	Management of acute hypocalcaemia
	Management of acute hypercalcaemia
	Vitamin D replacement in osteomalacia
	Management of alfacalcidol / calcitriol, cholecalciferol and calcium replacement in post op hyperparathyroidism patients with falling calcium
	Indications for treatment and bisphosphonate in Paget's disease of bone

## Training Goal 5 – Pituitary and Electrolytes

**By the end of the second year of Endocrinology Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for usual clinical presentations of pituitary disease and electrolytes imbalance.

**By the end of Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for complex forms of pituitary disease and electrolytes imbalance.

### OUTCOME 1 – HISTORY TAKING AND EXAMINATION

For the Trainee to be able to take a focused and comprehensive history and examination (Year 2).

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 2 – DIAGNOSE AND MANAGE PITUITARY DISORDERS

For the Trainee to correctly diagnose and manage pituitary disorders including rare presentations.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 3 – DIAGNOSE AND MANAGE ELECTROLYTES IMBALANCES

For the Trainee to correctly diagnose and manage electrolytes imbalances including rare presentations.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 4 – INTERPRET RADIOLOGICAL INVESTIGATIONS

For the Trainee to correctly interpret radiological investigations.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (CBD) as indicated by Trainer
- MDT Attendance

### OUTCOME 5 – SELECT, PERFORM, AND INTERPRET DYNAMIC PITUITARY FUNCTION TESTS

For the Trainee to demonstrate ability to select, perform (if possible) and interpret dynamic pituitary function tests.

#### Assessment and learning opportunities

- Feedback Opportunity



- Workplace Based Assessment (CBD, DOPS) as indicated by Trainer

#### OUTCOME 6 – ACTIVELY PARTICIPATE IN MDT ACTIVITIES

For the Trainee to actively participate in multidisciplinary team activities.

##### Assessment and learning opportunities

- Feedback Opportunity
- Present cases at MDT meetings

#### OUTCOME 7 – ADVOCATE FOR PATIENT EMPOWERMENT AND DEMONSTRATE EMPATHY

For the Trainee to advocate for patient empowerment and demonstrate empathy with the patient's lived experience.

##### Assessment and learning opportunities

- Feedback Opportunity

##### Presentations and conditions

The table below details the key conditions commonly associated with this Training Goal. Each of these should be regarded as a clinical context in which trainees should be able to demonstrate competence across the relevant training outcomes. For each condition/presentation, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management, and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Training Goal 5. Pituitary and Electrolytes	
Pituitary Conditions	Acromegaly
	Cushing syndrome
	Diabetes insipidus
	Pituitary tumor
	Prolactinoma
	Empty Sella Syndrome
	Hypopituitarism
	Growth hormone deficiency
	Kallman syndrome
	Infertility
Electrolyte Disorders	Hypernatremia / Hyponatremia
	Hypercalcemia / Hypocalcemia
	Hyperchloremia / Hypochloremia
	Hypermagnesemia / Hypomagnesemia
	Hyperphosphatemia / Hypophosphatemia
	Hyperkalemia / Hypokalemia

## Training Goal 6 – Reproductive Health and Gender Care

**By the end of the second year of Endocrinology Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for usual clinical presentations of reproductive health.

**By the end of Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for complex forms of reproductive health and gender care.

### OUTCOME 1 – HISTORY TAKING AND EXAMINATION

For the Trainee to be able to take a focused and comprehensive history and examination (Year 2).

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 2 – DIAGNOSE AND MANAGE REPRODUCTIVE PRESENTATIONS

For the Trainee to correctly diagnose and manage reproductive presentations.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 3 – RECOGNISE AND MANAGE GENDER CARE PRESENTATIONS

For the Trainee to correctly recognise and manage gender care presentations.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 4 – INTERPRET LABORATORY AND RADIOLOGICAL INVESTIGATIONS

For the Trainee to correctly interpret laboratory and radiological investigations for reproductive care.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 5 – ACTIVELY PARTICIPATE IN MDT ACTIVITIES

For the Trainee to actively participate in multidisciplinary team activities.

#### Assessment and learning opportunities

- Feedback Opportunity
- Present cases at MDT meetings

**OUTCOME 6 – ADVOCATE FOR PATIENT EMPOWERMENT AND DEMONSTRATE EMPATHY**

For the Trainee to advocate for patient empowerment and demonstrate empathy with the patient's lived experience.

**Assessment and learning opportunities**

- Feedback Opportunity

**Presentations and conditions**

The table below details the key conditions commonly associated with this Training Goal. Each of these should be regarded as a clinical context in which trainees should be able to demonstrate competence across the relevant training outcomes. For each condition/presentation, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management, and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Training Goal 6. Reproductive Health and Gender Care	
<b>Conditions Associated with Reproductive Medicine (Female)</b>	Polycystic Ovary Syndrome
	Premature ovarian insufficiency
	Congenital adrenal hyperplasia
	Hypothalamic amenorrhoea
	Primary / Secondary amenorrhoea
	Pubertal delay
	Menopause/perimenopause
	Hypogonadotropic hypogonadism
	Infertility (desired)
	Turner Syndrome
	Investigating hyperandrogenaemia (hyperthecosis, ovarian tumour, PCOS etc)
	Disorders of sexual development
	Prolactinoma
<b>Conditions Associated with Reproductive Medicine (Male)</b>	Hypogonadotropic hypogonadism
	Functional hypogonadism
	Primary testicular failure
	Klinefelter's syndrome
	Infertility (desired)
	Congenital adrenal hyperplasia
	Exogenous testosterone use/abuse
	Delayed puberty
<b>Clinical Managements of Reproductive Conditions (Female)</b>	Induction of puberty
	Prescribing HRT
	Prescribing hormonal and non-hormonal contraception
	Medical management of PCOS- endometrial protection, treating hyperandrogenic symptoms, metabolic/weight management, fertility, long term health screening and treatment
	Basics of fertility treatment/understanding ovulation induction and IVF
	Steroid replacement in CAH

	Optimising CAH for fertility
<b>Clinical Managements of Reproductive Conditions (Male)</b>	Induction of puberty
	Steroid replacement in CAH
	Optimising CAH for fertility
	Testosterone treatment – indications, preparations, monitoring, risks, impact on fertility
	Interpreting semen analysis
	Induction of spermatogenesis

## Training Goal 7 – Adrenal

**By the end of the second year of Endocrinology Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for usual clinical presentations of adrenal diseases.

**By the end of Training,** the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for complex forms of adrenal disease.

### OUTCOME 1 – HISTORY TAKING AND EXAMINATION

For the Trainee to be able to take a focused and comprehensive history and examination (Year 2).

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 2 – DIAGNOSE AND MANAGE ADRENAL DISORDERS

For the Trainee to correctly diagnose and manage adrenal disorders.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 3 – INTERPRET LABORATORY AND RADIOLOGICAL INVESTIGATIONS

For the Trainee to correctly interpret appropriate laboratory and radiological investigations.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer
- MDT attendance
- Laboratory Activities

### OUTCOME 4 – ACTIVELY PARTICIPATE IN MDT ACTIVITIES

For the Trainee to actively participate in multidisciplinary team activities.

#### Assessment and learning opportunities

- Feedback Opportunity
- Present cases at MDT meetings

### OUTCOME 5 – ADVOCATE FOR PATIENT EMPOWERMENT AND DEMONSTRATE EMPATHY

For the Trainee to advocate for patient empowerment and demonstrate empathy with the patient's lived experience.

#### Assessment and learning opportunities

- Feedback Opportunity

## Presentations and conditions

The table below details the key conditions commonly associated with this Training Goal. Each of these should be regarded as a clinical context in which trainees should be able to demonstrate competence across the relevant training outcomes. For each condition/presentation, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management, and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Training Goal 7. Adrenal	
<b>Core Conditions</b>	Adrenal insufficiency – primary/secondary/tertiary
	Adrenal Cushing's
	Mineralocorticoid excess – primary and secondary
	Adrenal adenoma and associated biochemical work up
	Phaeochromocytoma and paraganglioma (PPGL)
	Congenital adrenal hyperplasia (21 hydroxylase deficiency)
	Mild autonomous cortisol syndrome (MACS)
<b>Desirable</b>	Adrenocortical carcinoma (ACC)
	Mitotane therapy in ACC
	Adrenal metastases and haemorrhage
	Congenital adrenal hyperplasia (other genotypes)
	Genetic syndromes of PPGL – VHL/SDHB and D/MEN2A
<b>Investigations</b>	Biochemical – short synacthen test, overnight dexamethasone suppression test, saline suppression test, adrenal vein sampling; baseline or random cortisol/ACTH in work up of adrenal insufficiency;
	17OHP for work up of CAH
	Genetic – work up for patients with PPGL
	Radiological investigations for patients with adrenal nodule/adrenal mass
<b>Management/Treatments</b>	Adrenalectomy (bilateral v unilateral)
	Management of postoperative adrenal insufficiency post adrenalectomy and patients at risk of same
	Optimisation of steroid replacement in adrenal insufficiency
	Optimisation of steroid replacement in CAH
	Pre- and perioperative management of phaeochromocytoma
	Management of acute adrenal crisis
	Medical management of Cushing's/cortisol excess
	Mitotane therapy for patients with ACC
	Medical v surgical management of primary aldosteronism

## Training Goal 8 – Neuroendocrine Diseases and Rare Endocrine Disorders

**By the end of Endocrinology Training**, the Trainee is expected to achieve proficiency in history-taking, examinations, formulation of a differential diagnosis and development of a focused management plan for neuroendocrine tumours, polyendocrine syndromes and inherited endocrine tumour syndromes.

### OUTCOME 1 – HISTORY TAKING AND EXAMINATION

For the Trainee to be able to take a focused and comprehensive history and examination (Year 2).

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 2 – DIAGNOSE AND MANAGE NEUROENDOCRINE PRESENTATIONS

For the Trainee to correctly diagnose and manage neuroendocrine presentations including neuroendocrine tumours, polyendocrine syndromes and inherited endocrine tumour syndromes.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (Mini-CEX or CBD) as indicated by Trainer

### OUTCOME 3 – INTERPRET LABORATORY, RADIOLOGICAL, AND GENETIC INVESTIGATIONS

For the Trainee to correctly interpret laboratory, radiological, and genetic investigations.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (CBD) as indicated by Trainer
- Laboratory Activities

### OUTCOME 4 – ACTIVELY PARTICIPATE IN MDT ACTIVITIES

For the Trainee to actively participate in multidisciplinary team activities.

#### Assessment and learning opportunities

- Feedback Opportunity
- Present cases at MDT meetings

### OUTCOME 5 – ADVOCATE FOR PATIENT EMPOWERMENT AND DEMONSTRATE EMPATHY

For the Trainee to advocate for patient empowerment and demonstrate empathy with the patient's lived experience.

#### Assessment and learning opportunities

- Feedback Opportunity

## Conditions and Presentations

The table below details rare and neuroendocrine disorders commonly associated with this Training Goal. Each of these should be regarded as a clinical context in which trainees should be able to demonstrate competence across the relevant training outcomes. For each condition/presentation, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management, and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Training Goal 8. Neuroendocrine and Rare Disorders	
Rare Disorders	Craniopharyngioma
	Primary Hyperparathyroidism
	Familial Isolated Hypoparathyroidism
	Autoimmune Polyglandular Syndrome Type 1
	Hypoparathyroidism
	Congenital Adrenal Hyperplasia
	Multiple Endocrine Neoplasia Type 1
Neuroendocrine Disorders	Endocrine myopathy
	Cushing syndrome
	Neuroendocrine tumours
	Carcinoid syndrome



## Training Goal 9 – Service Development and Data Management

**By the end of Endocrinology Training**, the Trainee is expected to develop leadership skills to support service development in hospital and community settings. This would include integrated data management, QI, and audit.

### OUTCOME 1 – DELIVER ANNUAL AUDIT CYCLE

For the Trainee to deliver annual audit cycle.

#### Assessment and learning opportunities

- Feedback Opportunity
- Audit and QI

### OUTCOME 2 – DELIVER AT LEAST ONE QI PROJECT

For the Trainee to deliver at least one QI project over the course of training.

#### Assessment and learning opportunities

- Feedback Opportunity
- QI Project

### OUTCOME 3 – DEMONSTRATE LEADERSHIP SKILLS

For the Trainee to demonstrate leadership skills.

#### Assessment and learning opportunities

- Feedback Opportunity
- Local, National and/or international committee participation

### OUTCOME 4 – KNOWLEDGE OF ELECTRONIC DATA MANAGEMENT SYSTEMS AND HEALTH SYSTEMS

For the Trainee to have knowledge of the electronic data management systems and health systems available and their clinical utility in delivering integrated services.

#### Assessment and learning opportunities

- Feedback Opportunity
- Workplace Based Assessment (CBD) as indicated by Trainer
- Report on systems available
- GDPR Training
- Documentation from SlainteCare and Regional Health Authorities

## 6. APPENDICES

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*This section includes two appendices to the curriculum.*

*The first one is about Assessment (i.e. Workplace Based Assessments, Examinations, and Evaluations)*

*The second one is about Teaching Attendance (i.e. Taught Programme, Specialty-Specific Learning Activities and Study Days)*

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## ASSESSMENT APPENDIX

### Workplace-Based Assessment and Evaluations

The expression “workplace-based assessments” (WBA) defines all the assessments used to evaluate trainees’ daily clinical practices employed in their work setting. It is primarily based on the observation of trainees’ performance by trainers. Each observation is followed by a trainer’s feedback, with the intent of fostering reflective practice.

### Relevance of Feedback for WBA

Although “assessment” is the keyword in WBA, it is necessary to acknowledge that feedback is an integral part and complementary component of WBA. The main purpose of WBA is to provide specific feedback for trainees. Such feedback is expected to be:

- **Frequent:** the opportunities to provide feedback are preferably given by directly observed practice, but also by indirectly observed activities. Feedback is expected to be frequent and should concern a low-stake event. Rather than being an assessor, the trainer is an observer who is asked to provide feedback in the context of the training opportunity presented at that moment.
- **Timely:** preferably, the feedback should be a direct conversation between trainer and trainee in a timeframe close to the training event. The trainee should then record the feedback on ePortfolio in a timely manner.
- **Constructive:** the recorded feedback would inform both trainee’s practice for future performance and committees for evaluations. Hence, feedback should provide trainees with behavioural guidance on how to improve performance and give committees the context that leads to a rating, so that progression or remediation decisions can be made.
- **Actionable:** to improve performance and foster behavioural change, feedback should include practical and contextualised examples of both Trainee’s strengths and areas for improvement. Based on these examples, it is necessary to outline a realistic action plan to direct the Trainee towards remediation/improvement.

### Types of WBAs in use at RCPI

There is a variety of WBAs used in medical education. They can be categorised into three main groups: *Observation of performance*; *Discussion of clinical cases*; and *Feedback*.

As WBAs at RCPI we use *Observation of performance* via MiniCEX and DOPS; *Discussion of clinical cases* via CBD; *Feedback* via Feedback Opportunity.

*Mandatory Evaluations* are bound to specific events or times of the academic year, for these at RCPI we use: Quarterly Evaluation/End of Post Evaluation; End of Year Evaluation; Penultimate Year Evaluation; Final Year Evaluation.

### Recording WBAs on ePortfolio

It is expected that WBAs are logged on an electronic portfolio. Every trainee has access to an individual ePortfolio where they must record all their assessments, including WBAs. By recording assessments on this platform, ePortfolio serves both the function to provide an individual record of the assessments and to track trainees' progression.

### Formative and Summative Feedback

The Trainee can record any WBA either as formative or summative with the exception of the *Mandatory Evaluations* (Quarterly/End of Post, End of Year, Penultimate Year, Final Year evaluations).

**If the WBA is logged as formative, the trainee can retain the feedback on record, but this will not be visible to an assessment panel, and it will not count towards progression. If the WBA is logged as summative it will be regularly recorded and it will be fully visible to assessment panels, counting towards progression.**

### Specialty-Specific Examination

It is mandatory for all trainees to sit either the **European Board Examination in Endocrinology, Diabetes and Metabolism, or the UK Specialty Certificate Exam in Endocrinology and Diabetes at Year 3 or 4** of HST

WORKPLACE-BASED ASSESSMENTS	
<b>CBD   Case Based Discussion</b>	<p>This assessment is developed in three phases:</p> <ol style="list-style-type: none"> <li>1. Planning: The Trainee selects two or more medical records to present to the Trainer who will choose one for the assessment. Trainee and Trainer identify one or more training goals in the curriculum and specific outcomes related to the case. Then the Trainer prepares the questions for discussion.</li> <li>2. Discussion: Prevalently, based on the chosen case, the Trainer verifies the Trainee's clinical reasoning and professional judgment, determining the Trainee's diagnostic, decision-making and management skills.</li> <li>3. Feedback: The Trainer provides constructive feedback to the Trainee.</li> </ol> <p>It is good practice to complete at least one CBD per quarter in each year of training.</p>
<b>DOPS   Direct Observation of Procedural Skills</b>	<p>This assessment is specifically targeted at the evaluation of procedural skills involving patients in a single encounter.</p> <p>In the context of a DOPS, the Trainer evaluates the Trainee while they are performing a procedure as a part of their clinical routine. This evaluation is assessed by completing a form with pre-set criteria, then followed by direct feedback.</p> <p>It is good practice to complete at least one assessment per quarter in each year of training.</p>
<b>MiniCEX   Mini Clinical Examination Exercise</b>	<p>The Trainer is required to observe and assess the interaction between the Trainee and a patient. This assessment is developed in three phases:</p> <ol style="list-style-type: none"> <li>1. The Trainee is expected to conduct a history taking and/or a physical examination of the patient within a standard timeframe (15 minutes).</li> <li>2. The Trainee is then expected to suggest a diagnosis and management plan for the patient based on the history/examination.</li> <li>3. The Trainer assesses the overall Trainee's performance by using the structured ePortfolio form and provides constructive feedback.</li> </ol> <p>It is good practice to complete at least one assessment per quarter in each year of training.</p>
<b>Feedback Opportunity</b>	<p>Designed to record as much feedback as possible. It is based on observation of the Trainees in any clinical and/or non-clinical task. Feedback can be provided by anyone observing the Trainee (peer, other supervisors, healthcare staff, juniors). It is possible to turn the feedback into an assessment (CDB, DOPS or MiniCEX)</p>
MANDATORY EVALUATIONS	
<b>QA   Quarterly Assessment</b>	<p>As the name suggests, the Quarterly Assessment recurs four times in the academic year, once every academic quarter (every three months).</p> <p>It frequently happens that a Quarterly Assessment coincides with the end of a post, in which case the Quarterly Assessment will be substituted by completing an End of Post Assessment. In this sense the two Assessments are interchangeable, and they can be completed using the same form on ePortfolio.</p> <p>However, if the Trainee will remain in the same post at the end of the quarter, it will be necessary to complete a Quarterly Assessment. Similarly, if the end of a post does not coincide with the end of a quarter, it will be necessary to complete an End of Post Assessment to assess the end of a post.</p> <p>This means that for every specialty and level of training, a minimum of four Quarterly Assessment and/or End of Post Assessment will be completed in an academic year as a mandatory requirement.</p>
<b>EOPA   End of Post Assessment</b>	
<b>EOME   End of Year Evaluation</b>	<p>The End of Year Evaluation occurs once a year and involves the attendance of an evaluation panel composed of the National Specialty Directors (NSDs); the Specialty Coordinator attends too, to keep records of and facilitate the meeting. The assigned Trainer is not supposed to attend this meeting unless there is a valid reason to do so. These meetings are scheduled by the respective Specialty Coordinators and happen sometime before the end of the academic year (between April and June).</p>
<b>PYE   Penultimate Year Evaluation</b>	<p>The Penultimate Year Evaluation occurs in place of the End of Year Evaluation, in the year before the last year of training.</p> <p>It involves the attendance of an evaluation panel composed of the National Specialty Directors (NSDs) and an External Member who is a recognised expert in the Specialty outside of Ireland; the Specialty Coordinator attends too, to keep records of and facilitate the meeting. The assigned Trainer is not supposed to attend this meeting unless there is a valid reason to do so.</p>
<b>FYE   Final Year Evaluation</b>	<p>In the last year of training, the End of Year Evaluation is conventionally called Final Year Evaluation, however, its organisation is the same as an End of Year Evaluation.</p>

## TEACHING APPENDIX

### RCPI Taught Programme

The RCPI Taught Programme consists of a series of modular elements spread across the years of training.

Delivery will be a combination of self-paced online material, live virtual tutorials, and in-person workshops, all accessible in one area on the RCPI's virtual learning environment (VLE), RCPI Brightspace.

The live virtual tutorials will be delivered by Tutors related to this specialty and they will use specialty-specific examples throughout each tutorial. Trainees will be assigned to a tutorial group and will remain with their tutorial group for the duration of HST.

Trainees will receive their induction content and timetable ahead of their start date on HST. Trainees must plan the time to complete their requirements and must be supported with the allocation of study leave or appropriate rostering.

As the HST Taught Programme is a mandatory component of HST, it is important that Trainees are released from service to attend the Virtual Tutorials and, where possible facilitated with the use of teaching space in the hospital.

### Specialty-Specific Learning Activities (Courses & Workshops)

Trainees will also complete specialty-specific courses and/or workshops as part of the programme.

Trainees should always refer to their training curriculum for a full list of requirements for their HST programme. When not sure, Trainees should contact their Programme Coordinator.

### Study Days

Study days vary from year to year, they comprise a rolling schedule of hospital-provided topic-specific educational days and national/international events selected for their relevance to the HST curriculum.

Trainees should attend at least 6 Endocrinology and Diabetes Study Days per year of Endocrinology Training. Attend at least 3 Endocrinology and Diabetes Study Days during the GIM year.

## Endocrinology &amp; Diabetes Mellitus &amp; GIM Teaching Attendance Requirements

