

Endocrinology

Residency

TRAINING GUIDE

(A) INTRODUCTION

Endocrinology is the branch of Medicine that deals with the study of the structure, function and disorders of the endocrine system. The endocrine system is made of the endocrine glands and their secretory products – hormones - that control a wide range of metabolic and homeostatic systems within the human body including growth and development, body composition, sexual maturation and fertility.

The specialty includes the diagnosis and management of the most common endocrine disorder - Diabetes Mellitus as well as a number of other common and rarer endocrine disorders that can manifest across all age groups. These include diseases of the pituitary/hypothalamus, thyroid and parathyroid, adrenal glands, pancreatic islets, ovaries and testes. Metabolic disorders include diabetes mellitus, eating disorders, obesity, dyslipidemias and calcium disorders and metabolic bone disease. Exposure to paediatric endocrinology, endocrine disorders in pregnancy and endocrinology of aging are also included in the curriculum.

The total duration of Endocrinology Residency is 3 years (R4-R6).

(B) PROGRAMME OVERVIEW

R4 and R5 are accredited by ACGME-I while R6 is accredited by JCST.

(C) TRAINING REQUIREMENTS R4 – R5

1. Clinical experience and postings

Senior residents will be assigned to conduct at least 2 half-day structured ambulatory clinic sessions per week. Each senior resident will be supervised by a core/physician faculty during these clinic sessions. Each clinic will have a complement of new and follow up cases. Senior Residents' clinic capped to no more than 12-15 patients per clinic.

To expose the senior residents to the breadth and depth of endocrinology, they will also rotate through sub-specialty clinics (including thyroid fine needle aspiration clinic) conducted by faculty members. During these clinic sessions, they will observe and learn the clinical management skills from the faculty. They will discuss selected cases with the faculty at the end of each clinic session.

Senior residents are required to complete 2 months of compulsory GM / GRM rotation per year of training.

2. Didactic Sessions

A variety of regularly-scheduled didactic sessions and seminars are provided to all senior residents and should include more than one of the following:

- Journal Club
- Endocrine Teaching (Core Curriculum conferences)
- Multidisciplinary Diabetes Grand Round
- Endocrine Grand Round

- Journal Watch
- Endocrinology / Pathology / Endocrine Surgery: Clinico Pathological Case Conference (CPC)
- Endocrine tutorials
- Pituitary Multidisciplinary Meeting (Pit MDT)
- National Teaching Programme (NTP)
- Medicine Grand Round
- Morbidity and Mortality Round
- Endocrine emergency lecture
- Clinical case conference
- Endocrine Self-Assessment Program (ESAP) practice session
- Case discussion
- Monthly research meeting
- Theme-based modular teaching
- Multidisciplinary teachings such as combined education talks with other departments, case discussion and tumour boards.

3. **Scholarly activities**

Resident's scholarly activities may include the following:

- Poster or Oral Presentation at a local or international meeting/ conference
- Participation in research project or publication at peer reviewed journals
- Involved in organising talks or teaching presentations

ACGME-I's advanced specialty requirements can be found here: <http://www.acgme-i.org/web/requirements/specialtypr.html>

(D) TRAINING REQUIREMENTS R6

1. **Foundational Requirements**

The R6 year must be in compliance with ACGME-I's Foundational Requirements.

Foundational requirements for IM related specialties:

<http://www.acgmei.org/web/requirements/SubspecialtyFoundational.pdf>

2. **Specialty Specific Requirements**

I. **Clinical Experience and Postings**

The following requirements apply to both R4 - R5 (ACGME-I accredited) and R6 (JCST accredited):

- Senior residents are required to acquire knowledge and meet learning objectives in areas of specialized Endocrinology during the 3-year residency programme:
 - Reproductive and Obstetric Endocrinology:
 - Nuclear medicine
 - Laboratory Endocrinology
 - Endocrine radiology
 - Post-operative management/ experience in managing Endocrine emergencies/ Neuro-Endocrinology
- Senior residents are required to complete a Paediatric Endocrinology rotation of minimum 8 outpatient clinic sessions during R4 – R6.

In R6, senior residents may opt to spend maximum 6 months in non-clinical training (i.e. purely research). Senior residents are also required to complete 2 months of compulsory GM / GRM rotation in R6.

II. Didactic sessions and scholarly activities

There are no specialty specific requirements for R6 senior residents in terms of didactic sessions and scholarly activities. It largely follows the requirements for R4 and R5 summarised in Section (C). Programme Directors may at their own discretion, implement additional institutional training activities for the senior residents.

3. Resident Competencies

R6	
1. Patient Care	<p>Senior residents must be able to:</p> <ul style="list-style-type: none"> • Provide patient care that is compassionate, appropriate, and effective for the inpatient treatment of endocrine problems. • Evaluate rare endocrine cases and obtaining historical subtleties that may not often be volunteered by the patient. • Be a role model in gathering subtle and reliable information as well as eliciting physical signs from the patient for junior members of the healthcare team. • Interpret more advanced diagnostics tests and be wary of the pitfalls of doing each tests. • Make appropriate clinical decision based on the results of more advanced diagnostic tests. • Recognize disease presentations that deviate from common patterns and that require complex decision making. • Manage complex or rare endocrinological conditions. • Make independent decisions with regards to management of all inpatients, their discharge and follow up plans. • Customize care in the context of the patient's preferences and overall health. • Function as an independent consultant and team leader to guide all junior doctors to assess and manage all inpatients. • Assess and manage patients in ambulatory care and patients referred for inpatient consults independently.
2. Medical Knowledge	<p>Senior residents must:</p> <ul style="list-style-type: none"> • Demonstrate knowledge of established and evolving scientific information relevant to the inpatient management of endocrine disorders and also demonstrate the application of this knowledge to patient care. • Be able to demonstrate qualities of a mentor and educator for all acute or chronic, complex, endocrine problems independently. • Know how to manage endocrinology throughout the lifespan – from developmental endocrinology, adolescence, antenatal issues, and reproductive issues to aging in endocrinology.

	<ul style="list-style-type: none"> • Demonstrate ability to impart knowledge to all junior doctors in the team.
3. Practice-based Learning and Improvement	<p>Senior residents must:</p> <ul style="list-style-type: none"> • Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence. • Be able to teach and guide juniors on Evidence-Based Practice. • Be able to effectively teach, guide, counsel and evaluate junior doctors/residents and medical students. • Know and able to guide clinical audit and quality improvement processes and be involved or has completed audit/ improvement projects. • Present poster at a local or international conference.
4. Interpersonal and Communication Skills	<p>Senior residents must:</p> <ul style="list-style-type: none"> • Demonstrate interpersonal and communication skills that result in the effective exchange of information and teaming with patients, their families, and healthcare professionals. • Supervise juniors during communication encounters with patient and family. • Be able to conduct family conferences independently. • Demonstrate excellent interpersonal communication skills to facilitate the function of multidisciplinary teams.
5. Professionalism	<p>Senior residents must:</p> <ul style="list-style-type: none"> • Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. • Display the ability to mentor and to train others in the team towards professional attitudes and behaviours in order to enhance team and individual effectiveness. • Demonstrate personal behaviour which contributes to building a productive culture within teams.
6. Systems-based Practice	<p>Senior residents must:</p> <ul style="list-style-type: none"> • Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. • Be an efficient team leader, advocate for cost effective quality care for all patients. • Demonstrate a wider understanding of the healthcare system - funding, resource allocation, social implications, etc. • Apply and encourage concepts of quality and safety to clinical practice

(E) LOG OF OPERATIVE / CLINICAL EXPERIENCE

All senior residents must keep a log of their operative / clinical experience in the ADS for R4 – R5 and electronic logging system in R6. Manual logbook with exactly the same fields as the electronic logging system is acceptable too.

(F) ASSESSMENT AND EXAMINATIONS

I. Supervisors Assessment

The supervisor's evaluation of the senior resident should be performed at the end of every rotation using the designated form and then submitted to the RAC for review.

Each year, senior residents will need to obtain at least a grade of 'Meeting Expectations' or better for their global evaluation by their faculty supervisor. This will have to be submitted to the RAC secretariat 1 month before the end of the training year. Failure to obtain a 'Meeting Expectations', will result in non progression to the next year of training.

The faculty supervisor should consider the residents' day-to-day performance in their training, their knowledge and their results of the In-Training Exam (ITE) when making the global rating evaluation.

II. Feedback

Senior residents should perform a yearly evaluation of teaching faculty and the training programme using the designated forms. These forms must be submitted to the RAC and kept absolutely confidential.

III. Formative Assessments and Examinations

The Clinical competency committee will assess the senior residents' achievement in their training milestones as defined by year of training before progression to the next level of training. The committee will review the evaluation assessments, portfolio, log books and supervisors reports.

Programme Directors may use more than one of the following formative and year on year progression assessment to evaluate the senior residents' competencies.

R4	R5	R6
ESAP ITE (Compulsory) Mini-CEX 360 evaluation Competency evaluation Portfolio review Chart stimulated recall Multi-source feedback Completion of requisite number of case write-up	ESAP ITE (Compulsory) Mini-CEX 360 evaluation Competency evaluation Direct observation of procedural skill (Thyroid FNA) Portfolio review Chart stimulated recall Multi-source feedback Completion of requisite number of case write-up MRCP (UK) Specialty Certificate Examination	ESAP ITE (Compulsory) Competency evaluation Completion of requisite number of case write-up MRCP (UK) Specialty Certificate Examination

Senior residents must pass both MRCP/ M.Med (Internal Medicine)/ local clinical examination and ABIM(S) to be eligible for progression to R5 of training.

From July 2019 onwards, MRCP is required for progression from R3 – R4. Hence, R4 residents who only have ABIM are required to pass MRCP for progression to R5

- MRCP (UK) Specialty Certificate Examination in Endocrinology should only be taken **after they have had at least 17 months of local Endocrinology Senior Residency training**, to be eligible for SCE

	<u>Exit Exam Format</u>
R6 / SR3 (exit)	1. Viva Voce 2. Completion of 3 case write-ups (Required to pass 2 out of 3 before being eligible for exit exam) 3. * Applicable only to the resident who fails SCE in previous year: MRCP (UK) SCE
R5 / SR2	1. Completion of 2 case write-ups 2. MRCP (UK) SCE
R4 / SR1	1. Completion of 1 case write-up

Candidates will need to enroll for the exam on their own after JCST secretariat has verified their eligibility (i.e., taken **only after they have had at least 17 months of local Endocrinology Senior Residency training**), with the PEs.

Note: Residents should not attempt the SCE until they **have had at least 17 months**, of senior residency training. If the candidate attempts the MRCP(UK) SCE and passes on his/her own despite being told specifically not to take it, the RAC will not recognise the examination results. The candidate will not be eligible to sit for the written examination and thus will not be able to pass the full exit examination.

Please refer to Annex A for the guidelines for submission of case reports.

(G) CHANGES IN TRAINEESHIP PERIOD AND WITHDRAWAL OF TRAINEESHIP

I. Changes in Training Period

Residency should be continuous. If a training programme is interrupted for any reason whatsoever, the RAC may at its discretion, require the resident to undergo a further period of training in addition to the minimum requirements of the programme or terminate the residency altogether. All residents are required to conform to the residency training plan as approved by the RAC. Overseas attachment during Senior Residency training is not permitted with the exception of Radiation Oncology and Neurosurgery (*refer to JCST Circular 114/14*).

II. Withdrawal of Traineeship

Withdrawal of traineeship requires approval from the JCST.