# Specialty Training Requirements (STR)

| | |
|---|---|
| Name of Specialty: | Advanced Internal Medicine |
| Chair of RAC: | Dr Endean Tan |
| Date of submission: | 23 May 2025 |

## Contents



Note: In addition to the training requirements stated in this STR, residents must comply with any other regulatory requirements or practice-based requirements mandated by the healthcare institutions or place of practice.

## Scope of Advance Internal Medicine

*Advanced Internal Medicine (AIM)* is a discipline encompassing the study, diagnosis and treatment of conditions that affect the internal organs of men and women from adolescence to old age. The scope includes not only the diagnosis and treatment for all stages of internal illness but also the practice of health promotion and disease prevention. The discipline is centred on evidence-based scientific medical knowledge in problem-solving and decision-making, a commitment to lifelong learning, and an attitude of caring derived from humanistic and professional values. The scope of AIM covers those medical conditions not under the organ-specific medical-related specialties and all internal medical conditions not requiring specific tertiary care of the medical-related specialties.

## Purpose of the Residency Programme

The objective of the programme is to provide the AIM resident with a more in-depth training in managing and taking care of patients in General or Internal Medicine. At the end of residency training, the resident should be competent as a specialist (General Internist) in managing patients with complex, undifferentiated internal medical conditions, and medical conditions that do not require specialised care of the medical-related specialists.

## Admission Requirements

At the point of application for this residency programme,

a) Applicants must be employed by employers endorsed by Ministry of Health (MOH); and

b) Residents who wish to switch to this residency programme must have waited at least one year between resignation from his/her previous residency programme and application for this residency programme.

At the point of entry to this residency programme, residents must have fulfilled the following requirements:

a) Have completed local Internal Medicine Residency programme and attained the MRCP (UK) and/or Master of Medicine (Internal Medicine) (NUS) qualifications or equivalent. Potential residents without these qualifications will need to seek ratification from JCST before they can be considered for the programme; and

b) Have a valid Conditional or Full Registration with Singapore Medical Council.

## Selection Procedures

Applicants must need to apply for the programme through the annual residency intake matching exercise conducted by Ministry of Health Holdings (MOHH).

Continuity plan: Selection should be conducted via a virtual platform in the event of a protracted outbreak whereby face-to-face on-site meeting is disallowed and cross institution movement is restricted.

## Less Than Full Time Training

Less than full time training is not allowed. Exceptions may be granted by Specialist Accreditation Board (SAB) on a case-by-case basis.

## Non-traditional Training Route

The programme should only consider the application for mid-stream entry to residency training by an International Medical Graduates (IMG) if he/she meets the following criteria:

a) He/she is an existing resident or specialist trainee in the United States, Australia, New Zealand, Canada, United Kingdom and Hong Kong, or in other centres/countries where training may be recognised by the Specialist Accreditation Board (SAB)

b) His/her years of training are assessed to be equivalent to the local training by JCST and/or SAB.

*Applicants may enter residency training at the appropriate year of training as determined by the Programme Director and RAC. The latest point of entry into residency for these applicants is Year 1 of the senior residency phase.*

*(Below note is only for IM-related specialties and subspecialties)*
*Note: Entering at Year 1 of the senior residency phase by IMG in any of the IM-related programmes/subspecialty programmes is regarded as 'mid-stream entry' because it requires the recognition of the overseas Junior Residency training/specialist accreditation of the base specialties respectively.*

## Separation

The PD must verify residency training for all residents within 30 days from the point of notification for residents' separation/exit, including residents who did not complete the programme.

## Duration of Specialty Training

The training duration must be 24 months.

Maximum candidature: All residents must complete the training requirements, requisite examinations and obtain their exit certification from JCST not more than 36 months beyond the usual length (IM residency + AIM) of their training programme. The total candidature for AIM is 36 months Internal Medicine residency + 24 months AIM residency + 36 months candidature.

Nomenclature: AIM residents will be denoted by SR1, SR2 and SR3 according to their residency year of training.

## "Make-up" Training

"Make-up" training must be arranged when residents:

- Exceed days of allowable leave of absence / duration away from training or
- Fail to make satisfactory progress in training.

The duration of make-up training should be decided by the Clinical Competency Committee (CCC) and should depend on the duration away from training and/or the time deemed necessary for remediation in areas of deficiency. The CCC should review residents' progress at the end of the "make-up" training period and decide if further training is needed.

Any shortfall in core training requirements must be made up by the stipulated training year and/or before completion of residency training.

## Learning Outcomes: Entrustable Professional Activities (EPAs)

Residents must achieve level 4 of the following EPAs by the end of residency training:

| | **Title** |
|---|---|
| **EPA 1** | Managing acute medical conditions in inpatient general ward |
| **EPA 2** | Performing Bedside Procedures in AIM |
| **EPA 3** | Managing acutely ill patients |
| **EPA 4** | Managing patients with multi-morbidity in the ambulatory setting |
| **EPA 5** | Providing consultation for referrals to General Medicine |
| **EPA 6** | Assessing and managing patients with diagnostic uncertainty and/or treatment in the ambulatory and inpatient settings |
| **EPA 7** | Providing general palliative care for patients with end stage disease with an AIM approach |
| **EPA 8** | Leading challenging communications with patients, families, and other healthcare professionals with an AIM approach |

## Learning Outcomes: Core Competencies, Sub-competencies and Milestones

The programme must integrate the following competencies into the curriculum, and structure the curriculum to support resident attainment of these competencies in the local context.

Residents must demonstrate the following core competencies:

### 1) Patient Care and Procedural Skills

Residents must demonstrate the ability to:

- Gather essential and accurate information about the patient
- Counsel patients and family members
- Make informed diagnostic and therapeutic decisions
- Prescribe and perform essential medical procedures

- Provide effective, compassionate and appropriate health management, maintenance, and prevention guidance

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

Residents must demonstrate the ability to:

- Do comprehensive analysis and management of complex, undifferentiated and multidisciplinary cases
- Anticipate complications and take appropriate actions
- Lead, guide, and perform bedside cardiopulmonary resuscitation
- Perform all bedside procedures*:
    - Thoracentesis / Chest Tube Insertion
    - Abdominal tap
    - Arterial line placement
    - Central line placement
    - Lumbar puncture
    - Endotracheal intubation

- Make independent decisions with regard to management of all inpatients, their discharge and follow-up plans.
- Make independent decisions with regard to ethical issues, extent of care, end-of-life care, Do-Not-Resuscitate orders and Certificate of Cause of Death.

*Residents, having already been certified as competent in the following procedures during their Internal Medicine residency programme, should maintain their proficiency, either by supervising junior doctors or by attending simulation training.

Residents must attend the Ultrasound training course (theory and practical). They must then maintain competency by continuing the hands-on training provided by individual hospital and will be certified competent by completing the required number of successful procedures as follows:

| **Type of Ultrasound assisted procedure(s)** | **Minimum number of procedures with Direct Observation of Procedural Skills(DOPS)** |
|---|---|
| Pleural drainage and/or tap | 5 |
| Ascites drainage and/or tap | 5 |
| Central lines | 3 Internal Jugular Veins (IJV) and 3 Femoral Veins (FV) |

*The Ultrasound assisted procedural training is mandatory for residents from AY 2021 cohort onwards*.

## 2) Medical Knowledge

Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioural sciences, as well as the application of this knowledge to patient care.

## 3) System-based Practice

Residents must demonstrate the ability to:

- Work effectively in various health care delivery settings and systems relevant to their clinical specialty
- Coordinate patient care within the health care system relevant to their clinical specialty
- Incorporate considerations of cost awareness and risk/benefit analysis in patient care
- Advocate for quality patient care and optimal patient care systems
- Work in inter-professional teams to enhance patient safety and improve patient care quality. This includes effective transitions of patient care and structured patient hand-off processes.
- Participate in identifying systems errors and in implementing potential systems solutions.

## 4) Practice-based learning and Improvement

Residents must demonstrate a commitment to lifelong learning.

Resident must demonstrate the ability to:

- Investigate and evaluate patient care practices
- Appraise and assimilate scientific evidence
- Improve the practice of medicine
- Identify and perform appropriate learning activities based on learning needs

Residents are expected to develop skills and habits to be able to meet the following goals:

- Residents should present at least 1 journal critique every 3 months during their 18 months of General Medicine posting (total minimum 6 journal critiques).
- Residents should present an average of 1 topic review/case-based discussion/multi-disciplinary case discussion every 3 months.

## 5) Professionalism

Residents must demonstrate a commitment to professionalism and adherence to ethical principles including the SMC's Ethical Code and Ethical Guidelines (ECEG).

Residents must:

- Demonstrate professional conduct and accountability
- Demonstrate humanism and cultural proficiency

- Maintain emotional, physical and mental health, and pursue continual personal and professional growth
- Demonstrate an understanding of medical ethics and law

**6) Interpersonal and Communication skills**

Residents must demonstrate ability to:

- Effectively exchange information with patients, their families and professional associates.
- Create and sustain a therapeutic relationship with patients and families
- Work effectively as a member or leader of a health care team
- Maintain accurate medical records

**Other Competency: Teaching and Supervisory Skills**

Residents must demonstrate ability to:

- Teach others
- Supervise others

### Learning Outcomes: Others

Residents must attend Medical Ethics, Professionalism and Health Law course conducted by Singapore Medical Association.

### Curriculum

The curriculum and detailed syllabus relevant for local practice must be made available in the Residency Programme Handbook and given to the residents at the start of residency.

The PD must provide clear goals and objectives for each component of clinical experience.

### Learning Methods and Approaches: Scheduled Didactic and Classroom Sessions

There must be a didactic programme based on the core knowledge content of AIM. The programme must provide regular formal teaching sessions and grant residents protected time to attend teaching.

The programme must provide opportunities for residents to interact with other residents and faculty members in educational sessions at a frequency sufficient for peer-peer and peer-faculty member interaction.

Patient-based teaching must include direct interaction between residents and attending physicians, bedside teaching, discussion of pathophysiology, and the use of current evidence in diagnostic and therapeutic decisions.

Teaching must be:

- Formally conducted on all inpatient and consultative services; and
- Conducted with a frequency and duration sufficient to ensure a meaningful and continuous teaching relationship between the assigned teaching attending and resident.

Residents must attend the following didactic sessions and workshop:

| Didactic session | Frequency | Minimum Attendance (if any) per year |
|---|---|---|
| Ultrasound assisted procedural training (Workshop) | 1 session/year | Min. 1 session during SR1/2 training |
| Topic review/Case based discussions (includes acute and general medicine) | 2 sessions/ month | Residents must attend at least once per month (Min. 12 per year) |
| Journal club | 1-2 sessions/ month | Residents must attend at least once per month (Min. 12 per year) |

Optional didactic session and workshop:

| Didactic session | Frequency |
|---|---|
| Morbidity and Mortality review | 1 session/month |
| Faculty Development (Workshop) | 1 session/year |
| Communications (Workshop) | 1 session/year |

In the event where face-to-face meeting is disallowed, the didactic sessions and courses should be conducted via virtual platforms.

## Learning Methods and Approaches: Clinical Experiences

Residents must undergo General Medicine rotation of at least 18 months.

Residents can undergo elective rotations up to a total of 6 months (each rotation should be minimum 1 month and maximum 3 months) in areas such as:

- Geriatric medicine
- Neurology
- Gastroenterology
- Cardiology
- Infectious diseases
- Renal medicine
- Endocrinology
- Respiratory medicine
- Haematology
- Medical Oncology

- Rheumatology
- Dermatology
- Palliative medicine
- Rehabilitation medicine
- Psychiatry
- MICU
- Other accredited posting (maximum 1 month), subject to IM RAC's approval

Clinical exposure:

- Residents should conduct daily morning and evening exit general medical ward rounds, managing at least 10 patients daily under supervision by a consultant.

- Residents should run at least one weekly outpatient clinic in general medicine under supervision by a consultant during their 18 months of General Medicine rotation.

- Residents should manage at least 30 outpatients per month (for the compulsory 18 months of General Medicine posting) under the supervision of a consultant.

- Residents should be actively involved in communication and ethical issues with respect to patient care during their clinical exposure.

- Residents should do at least 2 night calls per month.

- Residents should provide consult services (inpatient and outpatient) for other medical and surgical departments.

In the event of a protracted outbreak, whereby face-to-face on-site meeting is disallowed and cross-institution movement is restricted, residents will resume their posting in their own sponsoring institution.

### Learning Methods and Approaches: Scholarly/Teaching Activities

All residents should be strongly encouraged to participate in research, scholarly activities, and quality-related projects under the guidance of senior clinicians. The residents should be encouraged to present their work at local or international conferences.

### Learning Methods and Approaches: Documentation of Learning

Residents must perform and log the following by the end of their residency:

| Description | Minimum requirement by 18th month of training |
|---|---|
| Record of cases | Minimum 70 (of wide spectrum of differentiated, undifferentiated and complex medical conditions) |
| Record of procedures | Residents has been certified as competent in the procedures listed below by the PD of the Internal |

<table>
<tr><td></td><td>Medicine residency programme. Hence, the senior resident should maintain proficiency and be able to supervise junior doctors in performing these bedside procedures. The senior residents can either supervise the junior doctors or facilitate the simulation training.</td></tr>
<tr><td>Record of procedures</td><td>
<table>
<tr><th>No.</th><th>Procedure</th></tr>
<tr><td>1</td><td>Thoracentesis / Chest Tube Insertion</td></tr>
<tr><td>2</td><td>Abdominal tap</td></tr>
<tr><td>3</td><td>Arterial line placement</td></tr>
<tr><td>4</td><td>Central line placement</td></tr>
<tr><td>5</td><td>Lumbar puncture</td></tr>
<tr><td>6</td><td>Endotracheal intubation</td></tr>
</table>
<br>There are no minimum numbers to be fulfilled for the above-mentioned procedures.<br><br><u>Ultrasound Assisted Procedural Requirement</u><br><br>
<table>
<tr><th>Type of Ultrasound assisted procedure(s)</th><th>Minimum. number of procedures with DOPS</th></tr>
<tr><td>Pleural drainage and/or tap</td><td>5</td></tr>
<tr><td>Ascites drainage and/or tap</td><td>5</td></tr>
<tr><td>Central lines</td><td>3 Internal Jugular Veins (IJV) and 3 Femoral Veins (FV)</td></tr>
</table>
</td></tr>
<tr><td>CME hours (include combined teaching, Morbidity and Mortality meeting, Journal Club, etc)</td><td>Minimum 80 hours per year; Total of 160 hours by 18th month of residency training</td></tr>
<tr><td>Record of blue letter consultations</td><td>Minimum 20</td></tr>
<tr><td>Record of communications</td><td>Minimum 8 discussions; At least 1 discussion with supervisor/PD every 3 months<br>• Communication with patients and/or patient’s family members.<br>• Supervisor / faculty can go through a clinical case with challenges in clinical management or clinical decision making e.g., determining goals/extent of care, or difficult communications. This may also include adverse events.</td></tr>
</table>

| | |
|---|---|
| Record of Journal presentations and teaching | Minimum 6 journal critiques; To present at least 1 journal critique session in 3 months |

## Summative Assessments

| | Summative assessments | |
|---|---|---|
| | Clinical, patient-facing, psychomotor skills etc. | Cognitive, written etc. |
| SR2 | NIL | <u>Clinical Viva</u><br>• 3 stations (Journal Critique, Acute Medicine and General Medicine)<br>• 20 minutes per station<br>8 Questions (some with sub-questions) per station |
| SR1 | NIL | MRCP(UK) SCE in Acute Medicine – 2 papers:<br>100 MCQs, 3 hours each |

| S/N | **<u>Learning outcomes</u>** | **<u>Summative assessment components</u>** | | | |
|---|---|---|---|---|---|
| | | MRCP(UK) SCE in Acute Medicine | Clinical Viva | | |
| | | | Journal Critique Station | Acute Medicine Station | General Medicine Station |
| 1 | Patient Care | ✓ | | ✓ | ✓ |
| 2 | Medical Knowledge | ✓ | ✓ | ✓ | ✓ |
| 3 | Practice-Based Learning and Improvement | | ✓ | ✓ | ✓ |
| 4 | Interpersonal and Communication Skills | | | ✓ | ✓ |
| 5 | Professionalism | | | ✓ | ✓ |
| 6 | Systems-Based Practice | | ✓ | ✓ | ✓ |
| 7 | Faculty Development | - | - | - | - |
| 8 | Critical Thinking | ✓ | ✓ | ✓ | ✓ |