

Specialty Training Requirements (STR)

Name of Specialty:	Rehabilitation Medicine
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Date of submission:	21 April 2025

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Scope of Rehabilitation Medicine

Rehabilitation Medicine, also referred to as Physical Medicine and Rehabilitation (PM&R) or physiatry, is a medical specialty concerned with diagnosis, evaluation, and management of persons of all ages with physical and/or cognitive impairments and disability.

Purpose of the Residency Programme

The main aim of the Rehabilitation residency programme is to train, educate, equip, and foster growth-minded physicians who will contribute significantly to their patients, society, and the field of Rehabilitation Medicine.

This is done through a programme with strong emphasis on patient care and procedural skills, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, systems-based practice, and teaching and supervisory skills.

Admission Requirements

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 Joint Committee on Specialist Training (JCST) before they can be considered for the programme;
- b) Have a valid Conditional or Full Registration with Singapore Medical Council (SMC); and
- c) Be employed by employers endorsed by Ministry of Health (MOH) before application.

A resident who wishes to switch to this residency programme must wait one year between resignation from his/her previous residency programme and application for this residency programme.

Selection Procedures

Applicants must apply for the programme through the annual residency intake matching exercise conducted by MOH 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 a foreign-trained doctor if he / she meets the following criteria and has obtained approval by Rehabilitation Medicine RAC and JCST:

- a) Completed formal basic training programme in USA, UK, Ireland, Australia, Canada or New Zealand, supported with the Certificate of Completion of Basic training number or equivalent; or
- b) Completed formal basic training programmes with supporting documentation from teaching hospitals affiliated to medical schools under the Schedule II of the Medical Registration Act; and
- c) Fulfilled the junior residency's equivalent postings.

Shortlisted applicants, who met the entry criteria, are subject to selection interview, matching and approval from SAB. Selection is subject to available position and suitability of the candidate and endorsement by the Programme Director (PD).

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 36 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 (36 months IM residency + 36 months Rehabilitation Medicine residency) of their training programme. The total candidature for Rehabilitation Medicine is 36 months Internal Medicine residency + 36 months rehabilitation medicine residency + 36 months candidature.

Nomenclature: Rehabilitation Medicine 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	Providing inpatient rehabilitation care and management
EPA 2	Providing inpatient rehabilitation consults
EPA 3	Providing outpatient rehabilitation consultation and management
EPA 4	Leading and conducting interprofessional meetings

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. To achieve this, residents must have:

- A sufficient variety, depth, and number of clinical experiences. However, clinical activities must not compromise the educational requirements of the training programme.

Residents must:

- Have at least 18 months of inpatient care under the supervision of the consultant.
- With each year of training, have increasing responsibility in patient care, leadership, teaching, and administration. Clinical experiences should allow for progressive responsibility with lesser degrees of supervision as the resident advances and demonstrates additional competencies.
- Develop the attitudes and psychomotor skills required to:
 - a) Modify history-taking technique to include data critical to the recognition of functional abilities, and physical and psychosocial impairments which may cause functional disabilities
 - b) Perform the general and specific rehabilitation examinations, including procedures common to the practice of physical medicine and rehabilitation
 - c) Make sound clinical judgements
 - d) Design and monitor rehabilitation treatment programmes to minimise and prevent impairment and maximise functional abilities
 - e) Prevent injury, illness, and disability
- Attain competence in the following areas:
 - a) History and physical examination pertinent to physical medicine and rehabilitation
 - b) Assessment of neurological, musculoskeletal, and cardiovascular-pulmonary systems

- c) Assessment of disability, impairment and familiarity with the ratings of disability and impairment
- d) Data gathering and interpreting of psychosocial and vocational factors
- e) Therapeutic and diagnostic injection techniques
- f) Prescriptions for orthotics, prosthetics, wheelchairs and ambulatory devices, special beds, and other assistive devices
- g) Written prescriptions with specific details appropriate to the patient for therapeutic modalities, therapeutic exercises and testing performed by physical therapists, occupational therapists, speech/language pathologists. Understanding and coordination of services are necessary for suitable patients to return to work.
- h) Familiarity with the safety, maintenance, as well as the actual use, of medical equipment common to the various therapy areas and laboratories
- i) Geriatric rehabilitation

Residents must demonstrate:

- Progressive responsibility in diagnosing, assessing, and managing the conditions commonly encountered by the physiatrist in the rehabilitative management of patients of all ages in the following areas:
 - a) Acute and chronic musculoskeletal syndromes including sports and occupational injuries
 - b) Acute and chronic pain management
 - c) Congenital or acquired myopathies, peripheral neuropathies, motor neuron and motor system diseases and other neuromuscular diseases
 - d) Hereditary, developmental, and acquired central nervous system disorders, including cerebral palsy, stroke, myelomeningocele, and multiple sclerosis
 - e) Rehabilitative care of traumatic brain injury
 - f) Rehabilitative care of spinal cord trauma and diseases, including management of bladder and bowel dysfunction and pressure ulcer prevention and treatment
 - g) Rehabilitative care of amputations for both congenital and acquired conditions
 - h) Sexual dysfunction common to the physically impaired
 - i) Post fracture care and rehabilitation of postoperative joint arthroplasty
 - j) Experience in evaluation and application of cardiac and pulmonary rehabilitation as related to rehabilitation responsibilities
 - k) Pulmonary, cardiac, oncologic, infectious, immunosuppressive, and other common medical conditions seen in patients with physical disabilities
 - l) Diseases, impairments, and functional limitations seen in the geriatric population
 - m) Rheumatologic disorders treated by the physiatrist
 - n) Medical conditioning, reconditioning and fitness
 - o) Tissue disorders such as burns, ulcers and wound care

Residents must participate in decision-making involving ethical issues that arise in the diagnosis and management of their patients.

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.

Residents must acquire:

- Knowledge about the diagnosis, pathogenesis, treatment, prevention, and rehabilitation of those neuromusculoskeletal, neurobehavioural, cardiovascular, pulmonary, and other system disorders common to this specialty in patients of both sexes and all ages.
- Education in the principles of bioethics as applied to medical care.
- Adequate and systematic instruction in basic sciences relevant to physical medicine and rehabilitation such as anatomy, physiology, pathology, and pathophysiology of the neuromusculoskeletal, cardiovascular and pulmonary systems, kinesiology and biomechanics, functional anatomy, electrodiagnostic medicine, fundamental research design and methodologies, and instrumentation related to the field. This instrumentation should pertain to physiologic responses to the various physical modalities and therapeutic exercises, and the procedures commonly employed by physiatry. This instruction should be correlated with clinical training but should, when appropriate, include basic science faculty.
- Knowledge of the principles of pharmacology as they relate to the indications for and complications of drugs utilized in physical medicine and rehabilitation.

3) Systems-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

Residents must:

- Coordinate effectively and efficiently an interdisciplinary team of allied rehabilitation professionals for the maximum benefit of the patient through:
 - a) An understanding of each allied health professional's role
 - b) The ability to write adequately detailed prescriptions based on functional goals for rehabilitation management

- c) The development of management and leadership skills
- Coordinate and participate in the rehabilitation care of patients in the community and understand the rehabilitation and support services available in the community
- Have experience in the continuing care of patients with long-term disabilities through appropriate follow-up care

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

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

More senior residents should supervise more junior residents according to written guidelines established by the PD.

Learning Outcomes: Others

At the end of the 36 months programme, the candidate must:

- a) Demonstrate the ability to provide safe and effective care to the individual patient;
- b) Have the skills, knowledge, and attitudes required to enter unsupervised practice of rehabilitation medicine; and
- c) Have established a foundation for continued professional growth.

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

Residents must attend at least 1 structured teaching session per week in any of following format:

- Case presentation
- Journal club
- Didactic tutorial
- Mortality and morbidity round
- Rehab grand ward round

Learning Methods and Approaches: Clinical Experiences

Residents must do the following rotations:

Core rotation	Minimum duration
General Medicine/Geriatric Medicine	6 months [Note: As per SAB's policy, Geriatric postings must be a minimum of 1 month and capped at 2 months.]
Traumatic brain injury rehabilitation (Neuro-rehabilitation)	3 months
Spinal cord injury rehabilitation (Neuro-rehabilitation)	3 months
Stroke rehabilitation and rehabilitation of other neurological disorders	6 months

(Neuro-rehabilitation)	
Musculoskeletal rehabilitation	6 months
Community Hospital and rehabilitation in the community	3 months

Residents must do a total of 9 months of elective rotations, of which 3 months must be cross cluster rotation.

Elective program must be in any of the following: Cardiopulmonary rehabilitation, Neurophysiology study (EMG, NCS), Pain management, Paediatrics rehabilitation, Cancer rehabilitation and Sports medicine. Residents can choose to repeat a core Neuro-rehabilitation or Musculoskeletal rehabilitation posting not exceeding 6 months each.

In the event of a protracted outbreak, the resident should spend the duration of the rotation in the specialty department of the parent institution, if possible.

Residents must have core experiences in inpatient and outpatient rehabilitation management of the following diagnostic groups and performance of following rehab procedures:

- Traumatic Brain Injury/ Spinal Cord Injury/ Stroke and other neurological disorders/ chemo denervation procedures for management of spasticity and Urodynamic study
- Fracture/ Polytrauma/ Amputation/ Joint replacements/ Orthotics/ Prosthetics/ Connective Tissue Diseases and Musculoskeletal injections

Residents must:

- Have teaching rounds with faculty at least twice per week. These rounds must include patient contact with those hospitalised in inpatient rehabilitation facilities (IRFs);
- Observe directly and participate in the various therapies in the treatment areas regularly throughout the residency program, including the proper use and function of equipment and tests; and

Observe and gain fundamental understanding of orthotics and prosthetics, including fitting and manufacturing, through instruction and arrangements made with appropriate orthotic-prosthetic facilities.

[Learning Methods and Approaches: Scholarly/Teaching Activities](#)

Residents should participate in structured, supervised research training.

Residents should be encouraged to produce a peer reviewed publication or engage in an in-depth scholarly activity during the residency programme.

PD may elect to offer a special research or academic track for selected residents. This may take the form of an elective or research rotation, not to exceed six months.

Learning Methods and Approaches: Documentation of Learning

- 1) Residents must maintain electronically:
 - a) 50 Case logs of conditions seen
 - b) Procedure logs
- 2) Residents will be required to perform, by the end of residency:
 - a) At least 10 supervised ultrasound guided injections of the shoulder and the knee (with at least 4 supervised injections of the shoulder and knee respectively)
 - b) At least 15 supervised botulinum toxin injections of the upper and lower limbs (with at least 5 supervised injections in either limb)

Summative Assessments

NHG & SHS Residency

	Summative assessments	
	Clinical, patient-facing, psychomotor skills etc.	Cognitive, written etc.
R6	Viva Voce	Nil
R5	Nil	Nil
R4	Nil	Nil

S/N	<u>Learning outcomes</u>	<u>Summative assessment components</u>	
		Component a: Viva Voce	Component b: Journal Critique (Viva)
1	Clinical knowledge and examination	✓	
2	Critical thinking		✓