

Supplementary material to article by J. P. Engkasan et al. "Implementation of clinical quality management for rehabilitation in Malaysia"

Table SII. Description of rehabilitation services identified in the situation analysis, including the services provided by the University Malaya Medical Center (UMMC), by the Ministry of Health (MOH) at its only freestanding rehabilitation hospital at Cheras, as well as at its 16 state and major district hospitals, other district hospital, and health clinics, and by the Social Security Organisation (SOCSO) at its Malacca facility

Partner institution	Context	Rehabilitation services
UMMC	Acute	<p><i>Rehabilitation in Acute Care</i></p> <p>Assessment and intervention performed by physiotherapist, occupational therapist or speech therapist (either individually or in combination) in the acute wards. The primary physicians are usually not physical and rehabilitation medicine (PRM) specialists, but the primary treating doctors; the non-PRM doctors could refer their patients straight to the relevant therapists.¹</p> <p>However, complex cases, such as patients with multiple impairments or those with specific health conditions, such as spinal cord injury, stroke, multiple sclerosis, acquired brain injury and post-amputation, will be referred to a PRM specialist. The PRM specialist assesses and decides if these patients are suitable for a post-acute rehabilitation programme.</p>
	Post-Acute	<p><i>General Post-acute Rehabilitation</i></p> <p>Rehabilitation assessment and intervention performed by a multidisciplinary team led and coordinated by a PRM specialist. Patients usually originate from the acute care ward needing further rehabilitation treatment in the rehabilitation ward, but do not fit into any of the specialized rehabilitation services described below. The PRM specialist who receives the referral normally leads the multidisciplinary team (MDT); other members of the MDT are selected on case by case basis.</p> <p><i>Specialized Post-acute Rehabilitation</i></p> <p>Rehabilitation assessment and intervention by a specialized multidisciplinary team led and coordinated by a PRM specialist. The cases are assigned to the rehabilitation ward. The cases are confined to the following specific conditions: neurological diseases; spinal cord injury; acquired brain injury; post-amputation; paediatrics; and cardiopulmonary diseases. In this category, the patients are assigned to the rehabilitation ward, except for paediatric patients, who are assigned to the paediatric ward. Each specialized rehabilitation service has its own dedicated MDT; the minimum composition of this MDT includes a PRM specialist, rehabilitation residents, physiotherapist and occupational therapist, with the option of including speech therapist, prosthetic and orthotic personnel and medical social worker whenever the need arises.</p> <p>The activities in this service include: medical consultations; physical, occupational and speech therapies, medication review; family conference; interdisciplinary conference; individual and group educational/recreational activities; peer support activities; and occasionally short period discharge to facilitate integration into the community.</p>
	Outpatient	<p><i>General Outpatient Rehabilitation</i></p> <p>Assessment and intervention performed by physiotherapist, occupational therapist or speech therapist (either individually or in combination) on patients who are under the follow-up of non-PRM doctors. The therapeutic areas are similar to that provided in the Rehabilitation in Acute Care service.</p> <p><i>Specialized Outpatient Rehabilitation</i></p> <p>Rehabilitation assessment and intervention of specific health conditions performed by a specialized multidisciplinary team led and coordinated by PRM specialist. The cases are confined to the following specific conditions: neurological diseases; spinal cord injury; acquired brain injury; post-amputation; paediatrics; cardiac diseases; low back pain and arthritis, and advanced pain care. Each specialized rehabilitation area has its own dedicated MDT similar with that of the post-acute specialized rehabilitation team. The patients attends specialized rehabilitation clinic regularly for medical consultation with the PRM doctors; patients who have yet to achieve their full rehabilitation capacity attend regular therapy sessions whilst those who have achieved the expected functional capacity do not.</p>
MOH Cheras rehabilitation hospital	Post-acute	<p><i>Specialized Post-acute Rehabilitation</i></p> <p>Rehabilitation assessment and intervention by a dedicated multidisciplinary team led and coordinated by PRM specialist. The patients are assigned to a dedicated health-specific rehabilitation ward. The cases are confined to the following specialized rehabilitation areas: neurological rehabilitation, spinal cord injury rehabilitation, acquired brain injury rehabilitation, amputee and musculoskeletal rehabilitation, paediatric rehabilitation and geriatric rehabilitation.</p> <p>Each area has its own dedicated MDT; the minimum composition of this MDT includes PRM specialists (a geriatrician leads the team in geriatric rehabilitation), rehabilitation residents, pharmacist, physiotherapist and occupational therapist, with the options of including speech therapist, clinical psychologist, audiologist, prosthetic and orthotic personnel and medical social worker whenever the need arises. The activities in this service include: medical consultations; physical, occupational and speech therapies, medication review; family conference; interdisciplinary conference; individual and group educational/recreational activities; peer support activities; and occasionally short period discharge to facilitate integration into the community.</p> <p>(There is no general outpatient rehabilitation in Cheras)</p> <p><i>Specialized Outpatient Rehabilitation</i></p> <p>Rehabilitation assessment and intervention by a dedicated multidisciplinary team led and coordinated by PRM specialist. The cases are confined to the following specialized rehabilitation areas: neurological rehabilitation, spinal cord injury rehabilitation, acquired brain injury rehabilitation, amputee and musculoskeletal rehabilitation, paediatric rehabilitation geriatric, rehabilitation and cardiopulmonary rehabilitation. The patients attends specialized rehabilitation clinic regularly to meet the PRM doctors; they may or may not attend regular therapy sessions depending on their stage of rehabilitation. Those who have yet to achieve their full rehabilitation capacity attend regular therapy sessions, whilst those who have achieved their expected functional capacity do not. Regular Combined clinics with relevant other specialties are offered to address specific impairments, i.e neuro-ophthalmology, neuropsychiatry.</p>
State hospitals and major district hospitals	Acute	<p><i>Rehabilitation in Acute Care</i></p> <p>Assessment and intervention performed by physiotherapist, occupational therapist or speech therapist (either individually or in combination) in the acute wards. The primary physicians are usually not PRM specialists, but the primary treating doctors; the non-PRM doctors could refer their patients directly to the relevant therapists¹.</p> <p>However, complex cases, such as patients with multiple impairments or those with specific health conditions, such as spinal cord injury, stroke, multiple sclerosis, acquired brain injury, and post-amputation, will be referred to a PRM specialist. The PRM specialist assesses and decides if these patients are suitable for post-acute rehabilitation programme.</p>
	Post-acute	<p><i>General Post-acute Rehabilitation</i></p> <p>Rehabilitation assessment and intervention by a dedicated multidisciplinary team led and coordinated by PRM specialist. The MDT usually consists of a PRM doctor, medical officer, physiotherapist, occupational therapists and speech therapists (if available). Depending on the availability of rehabilitation wards or beds, the patients may receive their rehabilitation care in a dedicated rehabilitation ward or in the acute ward.</p>

Table SII. Cont.

Partner institution	Context	Rehabilitation services
	Outpatient	<i>General Outpatient Rehabilitation</i> Assessment and intervention performed by physiotherapist, occupational therapist or speech therapist (either individually or in combination) on a range of health conditions. The services are divided into general physiotherapist and occupational therapy services. The patients attends rehabilitation clinic regularly for medical consultations with the PRM doctors; they may or may not attend regular therapy sessions depending on their stage of rehabilitation. Outpatient therapy is usually delivered by the therapists in the general pool and not led or coordinated by PRM specialist.
Other district hospital	Acute	<i>Rehabilitation in Acute Care</i> Assessment and intervention performed by physiotherapist or occupational therapist (either individually or in combination) in acute medical or surgical ward. There is no in-house PRM doctor in this hospital; although some hospitals may have visiting PRM specialist, they do not see cases in acute wards.
	Outpatient	<i>General Outpatient Rehabilitation</i> Assessment and intervention performed by physiotherapist, occupational therapist or speech therapist (either individually or in combination) in their respective therapy areas. In this category of service, the patients are usually under the care of non-PRM doctors. Although some hospitals may have visiting PRM specialist, their care is mainly for clinic consultations and they do not lead a MDT team.
Health clinic (Level 1)	Primary Care	<i>Rehabilitation in Primary Care</i> Rehabilitation service rendered by physiotherapist and occupational therapists in the health clinic situated in the community. Primary Care Medicine specialists or family physicians lead this category of service.
SOCSCO	Work Integration	<i>Vocational Rehabilitation</i> Vocational Rehabilitation organized by SOCSCO is a comprehensive rehabilitation services to support the Return to Work programme. SOCSCO Rehabilitation Centre has Vocational Rehabilitation Department, which provides services of functional capacity evaluations, work simulation, work hardening and onsite work training (work trials). In addition, job matching, job coaching and job modifications are provided along with the vocational rehabilitation process until the subjects are successfully returned and sustained in gainful employment. For workers who are unable to return to their previous job requirements, the centre also provides vocational skills re-training, such as sewing, computer skills, digital printing skills, etc.

¹The specific therapeutic areas include the followings:

OT services: Geriatric, Hand & upper limb, Burn, plastic & scar, Rheumatology, Limb lengthening reconstruction surgery, Pain, Lymphedema, Pre-driving assessment, Psychosocial, Seating & positioning, General medical, General surgical, General orthopaedic, Pulmonary.

PT services: Sports, Women's health, Intensive care, Men's health, Vestibular, Gait training, Hydrotherapy, Electrotherapy/Electro physical Modalities, Chest physiotherapy, Geriatric, Hand & upper limb, Burn & plastic rehabilitation, Lymphedema, General medical, General surgical, General orthopaedic, Pulmonary.

ST services: Speech therapy (adults & paediatrics), Fibre-optic endoscopic evaluation of swallowing.