

Physical Medicine and Rehabilitation Rotation Specific Goals and Objectives Spinal Cord Injury Rehabilitation

For this rotation, please FOCUS the evaluation on the following CanMEDs roles: 1) Medical Expert; 2) Communicator; 3) Health Advocate

General Requirements:

To develop the necessary clinical skills and knowledge in spinal cord injury rehabilitation for:

- Competent practice of the specialty of physical medicine and rehabilitation
- Successful completion of the Royal College Fellowship Exam

Specific:

By the end of the Psychiatry Residency Program, including within this specific rotation, the resident must achieve the following objectives:

- Demonstrate diagnostic and therapeutic skills for ethical and effective patient care
- Access and apply relevant information i.e. current rehabilitation evidence and clinical practice guidelines to clinical practice
- Demonstrate effective consultation skills with respect to patient care, education and medical-legal opinions

Medical Expert

Definition:

As Medical Experts, Psychiatrists integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. *Medical Expert* is the central physician Role in the CanMEDS framework. The Psychiatrist is a medical specialist, expert in the comprehensive diagnosis, management and rehabilitation of people of all ages with neuromusculoskeletal disorders and associated disabilities.

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical rehabilitative care

- Demonstrate reliable and conscientious professional conduct in all aspects of patient care
- Recognize the importance of a multi-disciplinary team in the effective management of patients
- Recognize the principles and effects of a balanced lifestyle on one's practice and ability to provide optimal care for patients
- Understand medical legal issues and reports pertaining to spinal cord injury rehabilitation

2. Establish and maintain clinical knowledge, skills and attitudes appropriate to their practice

- Demonstrate knowledge of the anatomy, physiology, circulation and histology of the spinal cord

- Describe the pathophysiology, epidemiology, clinical features, diagnostic criteria, complications and functional consequences of spinal cord injury, spinal cord syndromes, other non-traumatic spinal cord impairments (i.e. myelopathy, syringomyelia, arachnoiditis, tethered cord, arterial venous malformation, spinal cord tumour, extra dural cord compression, transverse myelitis, multiple sclerosis, motor neuron disease, toxic/metabolic disorders and congenital/developmental disorders)
- Demonstrate knowledge of the rehabilitation management of acute spinal cord injury and the post-acute medical care of patients with spinal cord disease/dysfunction
- List the various options for treatment of fractures and dislocations at all vertebral levels and types and uses of cervical and thoracolumbar bracing
- Explain the relationship between the extent and level of the spinal cord injury and other predictive factors and expected functional outcomes
- Demonstrate knowledge in the prevention and management of complications associated with longstanding disability and the effects of aging with a disability
- Demonstrate knowledge of the musculoskeletal complications that occur in adolescents with spinal cord injuries including hypercalcemia, scoliosis, hip dislocation/subluxation and osteoporosis
- Demonstrate an understanding of the special needs and problems of children and adolescents with spinal cord injury including behavior, bladder, bowel, skin care, growth and development, mobility, nutrition, self-care, recreation and schooling
- Manage daily medical and rehabilitation issues for persons with spinal cord impairment
- Evaluate and manage orthostatic hypotension, other cardiovascular abnormalities and hypercalcemia during the initial mobilization of the patient
- Evaluate and manage abnormalities and complications in other body systems resulting from spinal cord injury including pulmonary, cardiac, vascular, endocrine and metabolic.
- Evaluate and manage respiratory dysfunction and complications including atelectasis, pneumonia, and complications associated with ventilator dependent patients, use of volume augmentation, CPAP, BiPAP
- Evaluate and manage autonomic dysreflexia
- With appropriate consultation demonstrate proficiency in evaluating and managing complications including thromboembolism, fragility fractures, hardware failure, osteomyelitis, sequelae of associated illnesses and pre-existing diseases, substance abuse, depression, pregnancy
- Manage peripheral nerve and musculoskeletal disorders associated with spinal cord injury including CTS, neck pain, shoulder pain and subluxation, overuse syndromes, sublesional osteoporosis, and heterotopic ossification
- Evaluate and manage complications associated with chronic spinal cord injury including pressure ulcers, wound infections, ingrown toenails, spasticity, pain, renal and bladder calculi, urinary tract infection, pyelonephritis, orchitis, epididymitis, chronic constipation, hemorrhoids, post-traumatic syringomyelia, kyphosis, scoliosis, progressive respiratory decline

3. Perform a complete and appropriate assessment of a patient

- Complete a relevant and organized medical and functional history from a patient with spinal cord impairment

- Perform a physical examination and a comprehensive neurological examination with emphasis on the performance of an ASIA assessment in order to determine the neurological level of injury and the ASIA classification
- Perform a functional assessment based on neurological, musculoskeletal, cardiopulmonary, and psychosocial evaluation
- Perform a regional musculoskeletal examination with emphasis on structure and alignment, signs of inflammation, joint range of motion and stability
- Formulate a comprehensive medical, functional and psychosocial problem list outlining short term and long term rehabilitation goals and an appropriate plan of management
- Prepare and maintain complete and informative clinical records including consultation and follow up reports and inpatient progress notes
- Be able to select, justify and interpret appropriate investigations including laboratory tests, radiological workup (blood work, CT scan, MRI, Electrodiagnostics – NCS, EMG, SEP, urodynamics, renal and abdominal ultrasound, cystoscopy, duplex Doppler, lung scans, spiral chest CT, DEXA bone density, and psychometric testing)

4. Use preventive and therapeutic interventions effectively

- Demonstrate an awareness of rehab technology and its role in the patient's functional outcome (i.e. voice dictation, hands free devices, and other assistive technologies)
- Demonstrate knowledge in the use of FES, motor retraining, conditioning, functional activities and the adaptive equipment needed to promote independence
- Discuss the use of pharmacotherapy as an adjunct to other rehabilitation therapeutics and management of secondary health complications including changes in pharmacokinetics, pharmacodynamics, drug interactions, over medication and compliance and select, prescribe and monitor appropriate drug therapy
- Discuss the management of neurogenic bladder and sexual dysfunction and the role of the urologist in the diagnosis and management of bladder dysfunction, bladder and renal complications, infertility and problems with ejaculation
- Discuss the management of the gastrointestinal system and neurogenic bowel
- Explain the value, indications, and contraindications of surgical options available based on an understanding of the neurophysiology and biomechanics of the neurological and musculoskeletal systems respectively including: sphincterotomy, ileoconduit, continent ileocystoplasty, colostomy, ileostomy, Malone procedure, pressure sore resection and musculocutaneous flaps, tendon transfers, electrical pacing or electrical stimulation (such as skeletal muscle, phrenic nerve, spinal cord, deep brain and sacral cord stimulation), tenotomies and tendon lengthening, syringo shunting, intrathecal baclofen pump implantation
- Be proficient in the prevention of thromboembolism
- Prescribe appropriate assistive devices including ambulation aids, wheelchairs/seating, upper extremity and lower extremity orthoses, self help aids and environmental control units
- Monitor the evolution of neural dysfunction in order to recognize conditions that may require additional evaluation, consultation or modification of treatment
- Have an approach to specific problems with community reintegration such as adaptive equipment, home modifications, return to driving, return to work or education, family adjustment, sexual functioning, nutrition, healthy weight, fitness, leisure and recreational activities

5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic

- Perform diagnostic and therapeutic procedures as required including the technique of joint aspirations and injections, catheterization of the urinary bladder, intracavernosal injection, conservative sharp debridement of ulcers and botulinum toxin injection to manage focal spasticity

6. Seek appropriate consultation from other health professionals, recognizing the limits of their expertise

- Be able to finalize a discharge plan and arrange in collaboration and consultation with the team an appropriate level of care to match the patient's needs
- Provide follow up, evaluation and preventative health care to maximize health and functional capacity and coordinate care with the patient's personal community physician

Communicator

Definition:

As Communicators, Psychiatrists effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. Develop rapport, trust, and ethical therapeutic relationships with patients and families

- Recognize that being a good communicator is a core clinical skill for physicians, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, patient adherence and improved clinical outcomes
- Establish positive therapeutic relationships with patients and their care givers that are characterized by understanding, trust, respect, honesty and empathy
 - Demonstrate a patient centered, compassionate and empathetic approach to patients and their care givers that includes concern for the psychosocial, cultural and economic implications of a patient's unique situation and disability
- Respect patient confidentiality, privacy and autonomy
- Listen actively
- Be aware of and responsive to nonverbal cues
- Gather information about a disease, but also about a patient's beliefs, concerns, expectations and illness experience
- Seek out and synthesize relevant information from other sources, such as a patient's family/caregivers and other professionals and review of relevant documentation
- Synthesize the information gathered for the diagnosis and management of a spinal cord injured patient

2. Convey relevant information and explanations accurately to patients and care givers, colleagues and other professionals

- Deliver information to a patient and their care givers, in a humane, respectful, clear, concise and accurate manner so that it is understandable and encourages discussion and participation in decision-making
 - Deliver information to colleagues and other health professionals in a respectful, clear, concise and accurate manner to encourage and facilitate inter-professional person-centered collaborative practice
 - Address challenging communication issues effectively, such as obtaining informed consent, delivering bad news, and addressing anger, confusion and misunderstanding
 - Recognize biases, including personal, and their impact on patient care
- 3. Develop a common understanding on issues, problems and plans with patients, care givers, and other professionals to develop a shared plan of care**
- Engage patients, care givers, and relevant health professionals in shared decision- making to develop a plan of care and promote patient autonomy.
 - Address challenging communication issues effectively, such as obtaining informed consent, delivering bad news, and addressing anger, confusion and misunderstanding
- 4. Convey effective oral and written information about a medical encounter**
- Prepare complete and informative consultations, progress and reports in a timely manner
 - Present verbal reports of clinical encounters and plans effectively

Collaborator

Definition:

As Collaborators, Physiatrists effectively work within a health care team to achieve optimal patient care.

- 1. Participate effectively and appropriately in an interprofessional health care team**
- Recognize and respect the diversity of roles, responsibilities and competencies of other professionals in relation to their own
 - Discuss the principles of interdisciplinary team functioning unique abilities of its members (including but not exclusive to Physiatrists, other physicians, physiotherapists, occupational therapists, nurses, speech and language pathologists, psychologists, social workers, orthotists, prosthetists, and community health care workers) and the special relationship of the patient and family to the team
 - Work with others to assess, plan and provide integrated care for spinal cord injured patients
 - Participate effectively in interprofessional team meetings, family conferences and discharge planning conferences
 - Demonstrate leadership in a health care team
 - Demonstrate the ability to lead and/or facilitate a rehabilitation team including team and family conferences

2. Work effectively with other health professionals to prevent, negotiate, and resolve interprofessional conflict

- Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team

Manager

Definition:

As Managers, Psychiatrists are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system.

1. Participate in activities that contribute to the effectiveness of their health care organizations and systems

- Work collaboratively with others in their organizations (i.e. CCAC, CPA)
- Describe the structure and function of the health care system as it relates to spinal cord injured patients with functional impairments, activity limitation and/or participation restriction, their community support and advocate groups
- Recognize and discuss the impact of health care economics on spinal cord injured patients and their families, residents, medical staff and allied health professionals

2. Manage their practice and career effectively

- Set priorities and manage time to balance patient care, practice requirements, outside activities and personal life
- Implement processes to ensure personal practice improvement

3. Allocate finite health care resources appropriately

- Recognize the importance of just allocation of health care resources, balancing effectiveness, efficiency and access with optimal patient care for spinal cord injured individuals
- Apply evidence and management processes for cost-appropriate care (ex., developing cost-appropriate care plan for spinal cord injured patients who may be marginalized; appropriateness of inpatient vs. outpatient services)
- Recognize and discuss the impact of health care economics on spinal cord injured patients and their families, residents, medical staff and other health professionals

4. Serve in administration and leadership roles, as appropriate

- Chair or participate effectively in committees and meetings (Ex., team rounds, family meetings)
- Plan relevant elements of health care delivery (e.g., adjusting schedule to meet various needs of patients, other health care providers for collaborative efforts or discussion)
- Perform managerial and administrative functions in an efficient and organized fashion

Health Advocate

Definition:

As Health Advocates, Physiatrists responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. Respond to individual patient health needs and issues as part of patient care

- Identify the health needs of a spinal cord injured patient
 - Assist patients and families in accessing health and social resources in the community, including patient support groups
 - Demonstrate sensitivity to special issues of gender, ethnicity and social bias in dealing with patients, families and persons with disabilities
- Identify opportunities for advocacy, health promotion and disease prevention with spinal cord injured individuals

2. Respond to the health needs of the communities that they serve

- Identify opportunities for advocacy, health promotion and disease prevention in the communities that they serve, and respond appropriately
 - Promote a heightened awareness of the challenges and abilities of persons with spinal cord injuries
- Appreciate the possibility of competing interests between the communities served and other populations and manage appropriately (ex., competition between services, housing)

3. Identify the determinants of health for the populations that they serve

- Identify the determinants of health of persons with spinal cord injuries, including barriers to access care and resources (ex, social and economic environment, physical environment, and the person's individual characteristics and behaviours; <http://www.who.int/hia/evidence/doh/en/>)
- Identify and respond appropriately to issues of gender, ethnicity and social bias in dealing with persons with disabilities

4. Promote the health of individual patients, communities, and populations

- Describe an approach to implementing a change in a determinant of health of persons with spinal cord injuries
- Promote a heightened awareness of the challenges and abilities of persons with spinal cord injuries including environmental and attitudinal barriers
- Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity and idealism
- Appreciate the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper
- Describe the role of the medical profession in advocating collectively for health and patient safety

Scholar

Definition:

As *Scholars*, Physiatrists demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. Maintain and enhance professional activities through ongoing learning

- Recognize and reflect learning issues in practice
- Pose an appropriate learning question
- Access and interpret the relevant evidence
- Integrate new learning into practice
- Document the learning process

2. Evaluate medical information and its sources critically, and apply this appropriately to practice decisions

- Critically appraise retrieved evidence in order to address a clinical question
- Integrate critical appraisal conclusions into clinical care thereby demonstrating a commitment to lifelong learning

3. Facilitate the learning of patients, families, students, residents, other health professionals, the public and others, as appropriate

- Demonstrate the ability to facilitate learning using a variety of teaching methods (for example, presentation/lecture, bedside teaching and small group interactive teaching)
- Assess and reflect on a teaching encounter

Professional

Definition:

As *Professionals*, Physiatrists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

1. Demonstrate a commitment to their patients, profession and society through ethical practice

- Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism
- Demonstrate a commitment to delivering the highest quality care and maintenance of competence
- Recognize and appropriately respond to ethical issues encountered in practice in such areas as truth-telling, consent, advanced directives, end-of-life issues and resource allocation
- Manage conflicts of interest appropriately
- Maintain appropriate relations with patients

2. Demonstrate a commitment to their patients, profession and society through participation in profession-led regulation

- Demonstrate knowledge and an understanding of the professional, legal and ethical codes of practice to which physicians are bound
- Recognize and respond appropriately to others' unprofessional behaviours in practice

3. Demonstrate a commitment to physician health and sustainable practice

- Balance personal and professional priorities to ensure personal health, to ensure a sustainable practice and to optimize patient care
 - Evaluate one's abilities, knowledge and skills continually
 - Recognize the limitations of professional competence
- Recognize other professionals in need and respond appropriately
- Receive and provide feedback effectively