



**PHYSICAL MEDICINE AND REHABILITATION
SPINAL CORD INJURY MEDICINE FELLOWSHIP
GOALS & OBJECTIVES**

LOCATIONS:

Texas Scottish Rite Hospital
2222 Welborn St.
Dallas TX 75219
<http://www.tsrhc.org/>

SUPERVISING PHYSICIAN ON SITE:

Richard Adams, MD

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The **Texas Scottish Rite Hospital** treats Texas children with orthopedic conditions, such as scoliosis, clubfoot, hand disorders, hip disorders and limb length differences, as well as certain related neurological disorders and learning disorders, such as dyslexia.

**SPINAL CORD INJURY
OBJECTIVES-FELLOW LEVEL**

Patient Care

The resident (fellow) will be expected to:

- Attend specialty clinics and perform history and physical examinations and assessment of function under the direction of the supervising physician.

- Diagnose physical, cognitive and psychosocial impairments in pediatric patients with spinal dysraphism, such as spina bifida.
- Create comprehensive medical rehabilitation problem lists and treatment plans for patients with myelomeningocele, spina bifida, and similar disorders.
- Determine appropriate rehabilitation services based on the patient's position in the continuum of care, and direct placement into inpatient rehabilitation, outpatient rehabilitation, long term care, or hospice.
- Write consults to therapists outlining patient history, problems to be addressed, and clearly defined precautions.
- Provide comprehensive medical and rehabilitation management of spinal cord injury patients who present for follow-up in the outpatient setting.
- Be able to prescribe appropriate equipment needs including seating, orthotics, and assistive technologies.

Medical Knowledge

The SCI Fellow will be expected to:

- Know expected functional independence measure (FIM and Wee-FIM) scores based on neurologic level of injury and ASIA Impairment scale.
- Evaluate patients with non-traumatic myelopathies, and know the differential diagnosis for myelopathy.
- Be able to outline types of congenital spinal disorders, including spinal dysraphism syndromes: spina bifida, myelomeningocele, and similar disorders.
- Outline types of pediatric spinal cord injury. Be able to describe SCIWORA in children.

- Describe the problems associated with the dual diagnosis patient (spinal cord injury and brain injury).
- Describe the clinical presentation and management of patients with syringomyelia.
- Identify important features of scoliosis that require intervention.
- Assess respiratory dysfunction in spinal cord disorders.
- Identify and describe fundamental basic science concepts pertinent to SCI medicine, including pathophysiology, kinesiology, and neurophysiology.
- Participate actively in Wheelchair Seating Clinic. Be able to outline differences in seating principles for manual and power wheelchairs. Be able to outline differences in seating for pediatric patients with high tetraplegia, low tetraplegia/high paraplegia and low paraplegia.
- Understand the medical problems associated with spinal cord injury and their treatment, including but not limited to: bowel, bladder, pulmonary, skin, nutrition, autonomic dysreflexia/hyperreflexia (AD/AH), deep venous thrombosis (DVT)/pulmonary embolism (PE), hypercalcemia, temperature regulation, orthostatic hypotension, latex allergy, spasticity.

Practice-Based Learning and Improvement

The SCI Fellow will be expected to:

- Locate, appraise and assimilate evidence from the scientific literature into daily practice.
- Observe and read about the role of neurophysiologic monitoring during spine surgery, and the evidence basis for its use to limit complications.

- Identify the components of and appropriate indications for gait analysis laboratory testing.
- Perform gastrostomy tube management, and develop familiarity with the different systems and their variations.
- Perform vacuum assisted closure (VAC) placement, and understand its purposes and evidence basis.
- Assess appropriateness and cost-effectiveness of diagnostic testing and how it affects patient treatment, outcomes, and overall patient management.
- Understand healthcare utilization issues in relation to diagnostic testing and therapy.
- Enhance knowledge of the role of neurophysiologic monitoring during spinal surgery Present educational topics to medical students, residents, allied health professionals, and the interdisciplinary team. Also facilitate learning within the interdisciplinary environment.

Interpersonal and communication Skills

The SCI fellow will be expected to:

- Understand psychosocial, educational and vocational issues in SCI. Interface/communicate effectively with interdisciplinary (IDT) team members and professionals outside the IDT related to these issues.
- Utilizing best evidence regarding outcomes after acute SCI, counsel patients with SCI and their families regarding prognosis. Maintain a balance of compassion and honesty, and respect patient's hopes and spiritual perspectives.
- Communicate clearly and effectively with persons with SCI and their families. Exhibit empathy and understanding.
- Counsel patients with SCI and their families regarding inpatient and outpatient rehabilitation goals.
- Obtain consultation as appropriate and write detailed consult requests which identify relevant issues.
- Be able to plan long-term follow-up including growth problems, scoliosis, educational, vocational training and transition to independent adult life in the community.

- Present mini lectures to residents and or medical students on this rotation.
- Provide effective leadership in interdisciplinary meetings. Guide the team tactfully when it loses focus or becomes excessively time-consuming.
- Utilize effective listening skills in interdisciplinary meetings and one-on-one interactions.

Professionalism

The SCI fellow will be expected to:

- Complete inpatient, outpatient and consult visits and charting in a timely manner. Take responsibility for completion of notes.
- Be sensitive to cultural differences and needs of persons with SCI, their families, and other members of the interdisciplinary team.
- Arrive on time for lectures and rounds.
- Apply sound ethical principles in practice including patient confidentiality, informed consent and provisions of withholding care. Be aware of disability rights perspectives on life-sustaining treatment.
- Exhibit appropriate dress and behavior.
- Communicate relevant medical information with other providers for patients moving into different care settings.
- Advocate strongly and effectively for patients. Assist them in their interactions with other health care providers and in other settings in order to optimize health and wellness.

Systems-based Practice

The SCI fellow will be expected to:

- Explain the approach of the interdisciplinary team which facilitates patient's developmental transitions from birth to adulthood.

- Identify the purpose and role of Early Childhood Intervention in the rehabilitation process of children with myelomeningocele.
- Identify the services available from the Texas Department of Assistive and Rehabilitative Services and other state and community agencies in the rehabilitation process of children and young adults with myelomeningocele.

Resources

1. Lin, V. et al Spinal Cord Medicine: Principles and Practice (text)
2. Kirshblum, Spinal Cord Medicine (text)
3. Molnar, Rehabilitation, SCI chapter and other chapters as suggested by Dr. McDonald
4. Relevant literature as suggested by Drs. Hamilton and McDonald

End of Document

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This document is subject to periodic revision. The version available online at the UTSouthwestern web site is the most current version.