Spine

Neurosurgery Consultation Referral Guidelines

Clinical Presentation

- Radiculopathy with mild or no weakness
- Spine pain

- Acute radiculopathy with significant weakness
- Stable or slowly progressive quadriparesis
- Stable or slowly progressive paraparesis

- Quadriplegia
- Paraplegia
- Rapidly progressive quadriparesis
- Rapidly progressive paraparesis

OR

- Cauda Equina Syndrome

AND one or more of:

- ❑ Decreased rectal tone
- ❑ Saddle anesthesia
- ❑ Bilateral motor weakness

If history of trauma and new, severe deficit, arrange for urgent MRI and/or CT.

Imaging: Abnormal X-Ray/CT/MRI Findings

CT/MRI images should be interpreted by the local radiologist prior to seeking neurosurgical consultation via CritiCall Ontario, unless the hospital does not have CT/MRI services.

AND evidence of one or more of:

- ❑ Stable compression fracture
- ❑ Evidence of spinal column tumour
- ❑ Cervical or lumbar disc herniation

NB: Degenerative and deformity findings should be referred to primary care provider for follow-up/management. See Quality-Based Pathway for Clinical Handbook for Non-Emergent Integrated Spine Care

AND evidence of one or more of:

- ❑ Spinal column fracture
- ❑ Subluxation/dislocation facet joints in cervical spine
- ❑ Collapse of vertebral body
- ❑ Cervical or lumbar disc herniation with significant canal compromise
- ❑ Spinal cord compression due to new mass (tumour or infection)

If no CT scan services available but significant neurological deficit and abnormalities on plain x-rays, seek consultation through CritiCall Ontario prior to arranging for transfer for CT/MR imaging.

AND evidence of one or more of:

- ❑ Thecal sac compression
- ❑ Severe spinal canal compromise

If no local CT/MRI services available, seek CritiCall Ontario consultation prior to arranging for transfer for CT/MR imaging.

Referral Directive

Next Morning Referral	Emergent/Urgent	Life or Limb
CONSULT WITH NEUROSURGEON NEXT MORNING (7 AM)**	CALL CRITICALL ONTARIO 1-800-668-4357	

*** Local arrangements can be made to determine the preferred time to consult with a neurosurgeon for Next Morning Referrals.*

Legend:
- Next Morning Referral
- Emergent/Urgent
- Life or Limb

Disease Specific Management

CAUDA EQUINA SYNDROME

- *The absence of urinary retention indicates the exclusion of possible Cauda Equina Syndrome.*

Next steps

- Once clinical diagnosis established, must be corroborated by MRI to establish diagnosis prompting referral.
- Optimize laboratory values (i.e., coagulation) for operative intervention.

SPINAL CORD INJURY

CT scan is first line imaging modality.

Cervical:

- Be vigilant in patients with new deficit and/or significant neck pain after trauma with normal CT scan. These patients require MRI to rule out spinal cord injury without radiographic abnormality.
- Immobilize in rigid cervical collar.

Thoracolumbar

- Assess bowel and bladder function.
- Keep on bedrest with head of bed flat.
- Investigate for associated spinal and systemic injuries (e.g., bowel injury, occult spinal injury).

ACUTE (<48 hours) SPINAL CORD COMPRESSION (METASTATIC)

Management

- Delineate primary lesion, if applicable.
- Avoid hypotension (SBP <100).
- Give Dexamethasone 16 mg IV x1.
- Look for lesions; the whole spine must be imaged with MRI + Gadolinium.

The criteria are intended as guidelines. Providers are to rely on their clinical judgement for each individual patient encounter.

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