# Lower Spinal Cord Injury Management Protocol

*for SCI without neurogenic shock, T6 and below*

## Neuro
- Spinal immobilization and log roll orders
- Additional imaging as needed
- Brace per spine recommendations
- Multimodal Pain management

## Gastrointestinal
- Bowel regimen:
  - Trauma bowel Regimen:
    - (Senna + MiraLAX) AND
    - bisacodyl suppository, qday
  - Nursing order: Administer bowel regimen as ordered; notify provider if no daily BM

## Musculoskeletal/Integument
- Begin PROM on admission if stable
- PT/OT orders after stabilization
- Early mobility
  - OOBTC when cleared by Spine
  - Frequent position changes
- Podis Boots to prevent foot drop

## Genitourinary
- Discontinue Foley per CL 30-15.05 *Indwelling Urinary Catheters: Insertion, Maintenance, and Discontinuation*
- If patient unable to void, initiate scheduled I/O catheterization q6h; if UOP>500ml, increase frequency

## Psych/Dispo
- PM&R consult
- Consider psych consult to evaluate patient as depression/anxiety are common after SCI
- Communicate early with Case Management to determine disposition options

## Prophylaxis
- DVT prophylaxis per Trauma protocol and
- Operative spine, initiate DVT ppx on POD1 unless delay requested per spine team.
- 3 month DVT ppx if patient non-ambulatory
- Stress Ulcer ppx per Trauma protocol
Upper Spinal Cord Injury Management Protocol
(In addition to Lower SCI Management Protocol interventions:)

Cardiovascular

- Avoid hypotension
- Vasopressors for MAP >85 for 72h post-injury in blunt SCI, norepinephrine first line agent, **attending to attending conversation for extension of MAP goals**
- If persistent vasopressor requirement: Consider midodrine 5mg q8h, and titrate up to 40mg/day
- If bradycardic, consider pseudoephedrine and/or glycopyrrolate as alternatives

Steroids

- Dexamethasone 10mg 8h x3 may be considered in pts with no significant co-morbidities
- **Attending to Attending agreement required prior to initiation of dexamethasone order**

Consider for Intubation:

- Patients unable to swallow
- Patients with increasing O2 requirement
- Patients with atelectasis, or plugging on cxr
- Paradoxical respiratory pattern
- Persistent need for frequent suctioning of airway
- Peak Expiratory Flow <5L
- Inability to manage secretions

Respiratory

- Respiratory Care Guidelines: Non-intubated SCI patients
- Early Tracheostomy Protocol / Respiratory Care Guidelines for Intubated SCI patients
- Respiratory Care Guidelines for Ventilatory weaning of SCI patients
Respiratory Care
Guidelines: Non-intubated SCI patients

Assess patient’s ability to swallow

Begin/continue Secretion management strategies:

- Optiflow
- Coughlator
- Accupap
- IPV (Intrapulmonary Percussive Ventilation)
- Quad cough
- NT suctioning

- Albuterol PRN
- Guaifenesin 20ml (400mg) q6h prn
- PCXR prn

- Consider abdominal binder
- Early mobility
- Postural drainage
- Consider End Tidal CO₂ monitoring

If poor swallow, notify HCT for ETT consideration
Indications for Early Tracheostomy
(2 or more of the following)
- C4 and above motor complete injury
- Early ETT requirement
- Flail chest
- Paradoxical respiratory pattern
- Persistent need for frequent suctioning of airway
- Peak Expiratory Flow <5L

Consider Tracheostomy if:
- Need for multiple operative interventions
- Failed extubation

Tracheostomy/ETT in-place

Secretion management strategies

Initial Ventilator settings:
- SIMV/PRVC preferred initial mode
- Heated circuit on ventilator
- PS to deliver goal TV on spontaneous breaths

- IPV
- HIT (Hyper Inflation Therapy)
- Quad cough
- Suction PRN
- Bronchoscopy prn

Planned extubation?
Consider extended 0/0 SBT

Respiratory Care Guidelines for Non-intubated SCI patients
Respiratory Care Guidelines for Weaning Ventilated SCI Patients

Meets criteria for weaning?
- Hemodynamics stable
- Secretions under control
- Initiating breaths on current mode

Continue secretion management and reassess readiness for weaning daily

yes

Continue secretion management strategies

CPAP/PS primary weaning mode
- Consider VS if patient unable to maintain TV on CPAP/PS
- Begin with brief periods of CPAP/PS (minutes) and progress to longer periods
- When tolerating > 24 hrs on spontaneous mode, consider Trach collar trials
- Begin with short (minutes) TC trials, slowly increase as tolerated

Do not decannulate quadriplegic patients with tracheostomy who have successfully weaned from the ventilator during acute hospital phase.
References


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