

## 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
- Low dose 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 requiring high dose vasopressors, assess for other sources of hypotension
- AND discuss with attending need to individualize MAP goal especially in elderly patients or in patients with history of cardiac disease.
- If persistent vasopressor requirement: Consider midodrine 5mg q8h, and titrate up to 40mg/day
- If bradycardic or has systolic pauses, consider po albuterol, pseudoephedrine and/or glycopyrrolate as alternatives

## Consider for Intubation:

- Patients unable to swallow
- Patients with increasing O<sub>2</sub> requirement
- Patients with atelectasis, or plugging on cxr
- Paradoxical respiratory pattern
- Persistent need for frequent suctioning of airway
- Peek 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

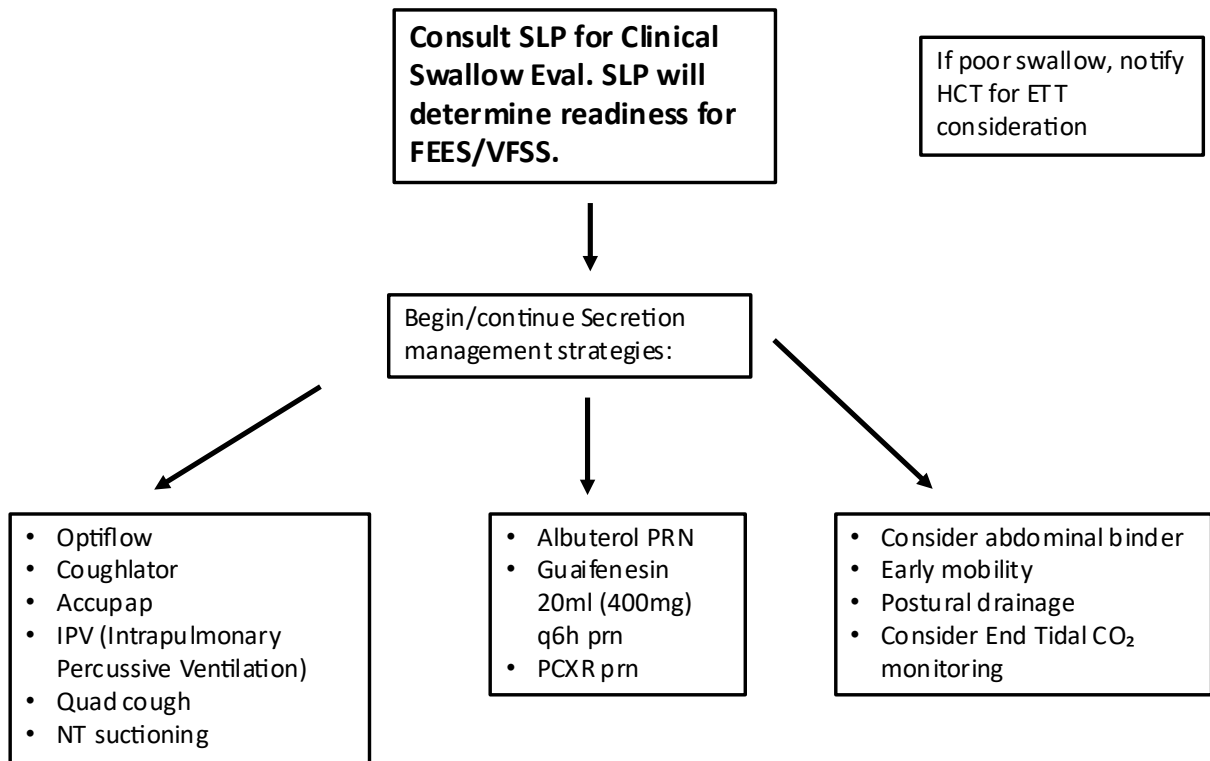
## Nutrition

- Patients with upper SCI are at high risk for silent aspiration and respiratory compromise.
- Keep NPO until Clinical Swallow Evaluation
- Consult SLP for Clinical Swallow Evaluation. SLP will determine readiness for FEES/VFSS
- For intubated patients, early DHT placement and TF initiation.

## Steroids

- **Attending to Attending agreement required prior to initiation of steroid therapy**
- **With attending approval, Dexamethasone 10mg 8h x3 doses**

## Respiratory Care Guidelines: Non-intubated SCI patients



## Early Tracheostomy Protocol/ Respiratory Care Guidelines for Ventilated SCI patients

### 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  
 Peek Expiratory Flow <5L

Consider Tracheostomy if:

- Need for multiple operative interventions
- Failed extubation

Tracheostomy/  
 ETT in-place

Secretion  
 management  
 strategies

- Guaifenesin 20ml (400mg) q6h x 5 days then prn
- Albuterol PRN
- Daily pcxr x 5d then PRN
- Consider abdominal binder
- Early mobility: turn q2h, OOB bid

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

no →

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.

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