Spinal Cord Injury Guidelines

I. Immobilization

a. Maintain proper immobilization per neurosurgery recommendations
b. Custom TLSO braces must be ordered from the company – speak directly to the patient's nurse to ensure prompt placement of the order
c. Soft TLSO & quickdraw braces are kept in central supply. PT will help determine appropriate size.
d. Change hard c-collar to Aspen collar as soon as possible if c-spine can't be cleared

II. Steroids

a. Do **NOT** give any steroids for spinal cord injury
b. This includes continuous and intermittent dosing

III. Blood Pressure Management (with or without deficits)

a. Permissive hypertension – do not restart home anti-hypertensive medications (other than beta blockers) unless SBP >200
b. Do **NOT** start pressors to maintain a mean arterial pressure any higher than 65 mm Hg.

IV. Neurogenic Shock

a. Common cause of hypotension/bradycardia in spinal cord injuries above T6.
b. If the patient has tachycardia, look for another cause for hypotension
c. Rarely seen in patients without a complete injury
d. **Norepinephrine** is the first line agent
e. Add midodrine 10 mg po TID to help wean norepinephrine. May increase to QID, if needed
f. Fludrocortisone 0.1 mg daily can be used as an adjunct to midodrine to reduce norepinephrine. Increase by 0.1 mg up to 0.5 mg daily.
g. Ensure euvolemia
h. Bradycardia:
    i. Theophylline 100 mg QID
    ii. Glycopyrrolate 0.4-0.8 mg IV prior to procedures
    iii. Avoid medications that may cause bradycardia
    iv. Cardiology consult for transvenous pacing, if persistent

V. Pulmonary Management

a. Aggressive pulmonary toilet is critical to preventing intubation
b. **No patients with high-level paraplegia should be transferred to the floor without good IS volumes for several days**. The entire team should agree on transfer.
c. **NO patients with quadriplegia should be sent to the floor without a trach** except in rare and special circumstances (NEVER on the weekend), and the entire team should agree. Almost ALL patients with quadriplegia will require intubation and tracheostomy.
d. Once a patient with quadriplegia requires intubation, plan trach and peg as soon as possible. Do not delay the procedures to attempt extubation.

VI. Bowel regimen

a. Immediately initiate aggressive bowel regimen that includes miralax 17 g BID and daily suppository
b. Monitor for daily bowel movements and administer milk of magnesia 30 ml if no BM in the last 24 hours.
c. If still no BM, add enema and magnesium citrate

VII. Bladder management

a. Remove indwelling catheter as soon as possible
b. Most patients with spinal cord injury will require intermittent catheterization every 4-6 hours
c. Do not allow the volume of urine to remain above 500 ml/catheterization. Either increase frequency of intermittent catheterizations to q4 hours or replace indwelling catheter.

d. Check post-void residual volume for patients voiding spontaneously. They often still require intermittent catheterization