Guideline

CCHMC Trauma Service Guidelines

Title: Steroids in Spinal Cord Injury

1. SCOPE

1.1. Care of the Trauma Services Patient at CCHMC.

2. DEFINITIONS

2.1. Spinal Cord Injury: An injury to the spinal cord resulting in a change, either temporary or permanent, in the cord's normal motor, sensory, or autonomic function.

3. GUIDELINE

3.1. Following review of the literature, CCHMC consensus guidelines recommend that Methylprednisolone following acute spinal cord injury is **not** routinely recommended. At the discretion of the **Neurosurgery Attending**, Methylprednisolone *may* on rare occasion be considered as a treatment option.

3.2. Administration guidelines:

3.2.1 Complete primary and secondary survey:

- Maintain in-line cervical spine immobilization
- Document neuro-sensory deficits

3.2.2 Initiate Methylprednisolone administration only with the discretion of the Neurosurgery Attending:

- Utilize EPIC order set “ED-Spinal Cord Injury”
- Bolus of 30 mg/kg over 15 minutes
- Wait 45 minutes, then initiate 23-hour infusion at 5.4 mg/kg/hour

3.2.3 Famotidine should also be administered during course of infusion for GI prophylaxis

4. REFERENCES

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4.4. Galandiuk S, Raque G, Appel S, et al. (1993). The two-edged sword of large-dose steroids for spinal cord trauma. *Ann Surg*, 218:419-27.

4.5. Gerhart KA, Johnson RL, Menconi J, et al (1995). Utilization and effectiveness of methylprednisolone in a population-based sample of spinal cord injured persons. *Paraplegia,* 33:316-21.

4.6. Hurlbert RJ, Hadley MN, Walters BC, Arabi B, Dhall SS, Gelb DE, Rozzelle CJ, Ryken TC, & Theodore N. (2013). Pharmacological therapy for acute spinal cord injury. *Neurosurgery supplement*, 72(3), 93-105.

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5. APPROVALS

All revisions of this guideline are approved by the Trauma Service Department. This guideline is reviewed every three years or sooner if deemed necessary. Policy authority for this document resides with the Trauma Service Department. This guideline is approved by the Trauma Service Manager and the Director of Trauma Services.

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