Background:
- In the trauma patient suffering from rib fractures, thoracic epidural anesthesia (TEA) with local anesthetics has the potential to offer improved pain control when compared to other analgesic modalities and promotes improved pulmonary toilet leading to reduced rates of nosocomial pneumonia and mechanical ventilator days.
- However, the frequent presence of co-existing pathologies and the paucity of literature addressing TEA in the pediatric trauma population may discourage providers from offering epidural anesthesia to their patients.
- Instead, other modalities have been used including oral and intravenous narcotic and non-narcotic analgesics, intercostal blocks, paravertebral blocks, and mechanical ventilation.
- We describe the successful placement and use of an epidural catheter in a trauma patient with a neuraxial injury.

Case Presentation:
- A 15 year old previously healthy girl was struck by a motor vehicle and admitted to the ICU for hemorrhagic shock and multisystem trauma including hemorrhagic shock and multisystem trauma.
- After intubation and initial resuscitation, she was completed on POD #1 and the epidural was started post-operatively. Successful extubation was completed.
- Needle and a 0.2% ropivacaine infusion was started post-operatively. Successful extubation was completed on POD #5 with no evidence of neurologic sequelae.
- Motor and sensory physical exams were unremarkable prior to the procedure. Hematocrit, platelet, and coagulation studies were all stable and located multiple segments superior to the epidural insertion site helped to inform our decision to proceed with placement. Moreover, there was no evidence of spinal cord pathology and the patient stood to benefit substantially from an effective epidural in terms of improved pain control, attenuation of the stress response, enhanced pulmonary clearance, and potential prevention of the onset of chronic pain complications.
- In summary, performing a thoracic epidural anesthetic in a trauma patient requires careful consideration of the relative risks and benefits, and should be done as part of a multi-modal pain regimen for optimal results.

References: