# SPINE PROTOCOL

## PRE-OP

* Meds: Acetaminophen 15 mg/kg (max of 1000 mg) and Gabapentin 15 mg/kg (max of 900 mg)
* Labs: CBC and Type and Cross
* Assessment: Thorough neuro assessment of gross motor movement

## INDUCTION

* Patient will go to sleep on the stretcher
* Standard induction with Propofol, Lidocaine Fentanyl, and Rocuronium
* Two large bore IVs and an Arterial line to be placed
* Position:
  + Lubricate and place Tegaderm over the eyes
  + Place bite block between the molars
  + Flip patient prone with arms in the superman position, ensure no pressure on the eyes
* Balanced Anesthetic with ½ MAC of inhaled anesthetic and infusion of Propofol and Fentanyl
  + Duchenne patients will not use inhaled anesthetic and will use only TIVA
  + Fentanyl at 1-3 mcg/kg/hr (IBW) is a standard infusion rate
  + No Precedex infusion, can give boluses after extubation if required
  + No Ketamine unless discussed with the Anesthesiologist as this falsely elevates neuromonitoring signals as well as prolongs emergence
* Decadron 0.2 mg/kg (max of 10 mg)
* Antibiotics:
  + Ancef 30 mg/kg for idiopathic cases
  + Ancef 30 mg/kg + Gentamycin 2.5 mg/kg for neuromuscular cases
* Tranexamic Acid:
  + Bolus 30 mg/kg (max of 2g)
  + Infusion of 10 mg/kg/hr (max of 500 mg/hr)

## INTRA-OP

* Monitor blood loss closely, especially in neuromuscular patients
  + Cell saver will be available in most cases
* Monitor fluid status
  + Stroke volume variation can be calculated using the Arterial line
  + SVV <12% generally indicates patient is no longer fluid responsive to hypotension
  + Can use crystalloid, colloid, or cell saver to maintain intravascular volume
* SSEPs and MEPs will be monitored so make sure 4/4 TOF has returned before incision, can use sugammadex if rocuronium has not worn off
* Blood Pressure Goals:
  + During dissection decrease the blood pressure decrease blood loss, usually maintain MAP between 60-70 mmHg
  + During correction (rod placement) increase the blood pressure to ensure adequate signals for the neuromonitoring, usually maintain MAP >80 mmHg
  + Discuss with the Anesthesiologist at the beginning of the case to ensure proper goals depending on the patient’s comorbidities, age, and baseline blood pressure

## CLOSURE

* After the neuromonitoring tech has performed their last set of signals then turn off the infusions and maintain anesthesia with inhaled anesthetic
  + Stop Propofol and Fentanyl infusions to ensure rapid emergence
  + Can turn on nitrous at this time
  + Slowly wean down inhaled anesthetic during closure
* Give Toradol 0.5 mg/kg (max of 30mg) if okayed by Dr. Quigley
* Long acting opioids should not be needed due to the Fentanyl infusion having a longer context-sensitive half-life than Remifentanil
* Give Valium 0.1 mg/kg (max of 5mg) after extubation
  + Recommend giving half in the OR and the other half in PACU
* Ensure patient can move all four extremities and follow commands before exiting the OR, this is to be done with Dr. Quigley present