Post-Operative Tethered Cord

THIS PATHWAY
SERVES AS A GUIDE
AND DOES NOT
REPLACE CLINICAL
JUDGMENT

Inclusion Criteria: post-operative care for any patient diagnosed by Neurosurgery to have tethered cord syndrome requiring surgical correction

Exclusion Criteria: none

Post-operative Care:
Admit to Neurosurgery service

Transfer to Med/Surg if no sedation required, or
Transfer to PICU if requiring sedation x24 hours to maintain flat in bed
Care per PICU for precedex infusion
HR, RR, and BP q2hr; temperature q4hr

Antibiotics

Antibiotics to be given for only 24 hours postoperatively unless otherwise indicated.

Cefazolin 100 mg/kg/day div q8hr (max 2,000 mg/dose) <u>OR</u>

Nafcillin 200 mg/kg/day div q6hr (max 12 g/day); adult dose 2g q6hr

If 6-Lactam allergy: Vancomycin IV:

- <52 weeks PMA[‡]/
 about <3 mo old: 15
 mg/kg q8hr or as
 determined by
 pharmacy based on
 estimated AUC
- ≥52 weeks PMA[‡]/
 about ≥3 months old –
 11 years old: 70 mg/kg/
 day div q6hr
- ≥12 yrs old: 60 mg/kg/ day div g8hr

[†]PMA (Post-Menstrual Age) = gestational age + postnatal age If acute kidney injury¹: Avoid NSAIDs or discuss with Nephrology for approval.

Pain Control

- Toradol IV 0.5 mg/kg/dose q6hr x6 doses (max 30 mg/dose)
 - 6 hours after last toradol dose, start ibuprofen PO: 10 mg/kg/ dose q6hr PRN (max 40 mg/kg/ day or 2,400 mg/day, whichever is less) or
- Acetaminophen IV 15 mg/kg/dose q6hr around the clock for 24 hours (max 1,000 mg/dose)
 - o After 24 hours of IV aceta minophen, switch to PO acetaminophen: 15 mg/kg/dose q6hr PRN pain; (max 75 mg/kg/day or 4,000 mg/day) for mild/moderate pain; may use PR acetaminophen for infants.
- Morphine 0.05 0.1 mg/kg IV q4hr PRN severe pain (max 5 mg/dose)

¹Consider Acute Kidney Injury (AKI) based on the following criteria:

- Increase in serum creatinine by 1.5-1.9 times baseline within the prior seven days, or
- Increase in serum creatinine by ≥0.3 mg/dLfrom baseline (≥26.5 mcmol/L) within 48 hours, or
- For those with unknown creatinine, an eGFR <90 ml/min/1.73m²

Monitoring:

 Cardiopulmonary monitoring and pulse ox x24 hours or for the duration of narcotic therapy

Nursing & Monitoring

 Temperature, HR, RR, and BP q4hr x 24 hours, then q8hr

Incision Care:

- Telfa and tegaderm or Medipore dressing placed in operating room
- Change and inspect site daily for leakage, pseudomeningocele, or redness at incision site.
 - Notify Neurosurgery if any of above are present.

Other:

- Strict intake & output
- Check post-void bladder scans (PVRs) – see "Fluids, Electrolytes, Nutrition" section.
 Incentive spirometer or
- bubbles 4-10x/hr while awake
 Sequential compression device (SCD)/stockings while in bed

²Notify Neurosurgery via Intellidesk for:

- Vomiting more than 3x in 8 hrs
 Any fluid leakage or redness at incision site or pseudomeningocele
- Temperature >38.5°CSevere headache
- PVRs in children >10% of EBC.
 These patients will need
 Urology consult

Diet:

Activity

POD 0: Flat in

bed to reduce

risk of CSF leak

May tum

on side or

stomach

lie on

24 hours post-

op: OT. PT

POD 3: may

consults

shower

or postural

headaches

Clear liquid diet, advance as tolerated when recovered from anesthesia per PACU

Fluids, Electrolytes

Nutrition

IV Fluids:

- D5 0.9 NS with 20 mEq KCI/Liter at maintenance
- KCI will be removed if impaired renal function

Anti-emetics:

Ondansetron 0.1 mg/kg/ dose q8hr PRN nausea and vomiting (max 4 mg/ dose)

Bladder regimen:

- Calculate estimated bladder capacity (EBC):
 - <1 year of age : EBC = 40-60 mL. Notify Neurosurgery if PVR >60mL
 - >1 year of age: EBC = (age in years +2) x 30
- Check PVRs
 - Diapered patient: q6hr
 - Toilet-trained patient: immediately after 3 consecutive voids
- Urology consult if patient followed pre-op by Urology or if PVR exceeds EBC x 3 PVR scans

Bowel regimen:

- Polyethylene glycol 17 g daily or BID PRN constipation
- Docusate 50-100 mg PRN constipation

Discharge Criteria:

 Baseline neurological examination, pain well-controlled on oral medication, afebrile x24 hours, bowel movement, taking adequate fluid and nutrition orally, cleared by PT & OT, at urologic baseline or with appropriate outpatient management plan

Discharge Medications:

- Ibuprofen PO 10 mg/kg/dose q6hr PRN (max 40 mg/kg/day or 2,400 mg/day, whichever is less) for mild/moderate pain
- Acetaminophen PO: 15 mg/kg/dose q6hr PRN pain (max 75 mg/kg/day or 4,000 mg/day) for mild/moderate pain
- Polyethylene glycol PO and/or Docusate to prevent constipation

Discharge Instructions:

- Call Neurosurgery for fever >101.5°F, vomiting >3x in 12 hr period, excessive irritability or sleepiness, severe headache, consistent change in gait
- Tegaderm & telfa dressing to be changed daily after bathing and when soiled
- Follow up outpatient 2-3 weeks after discharge
- If sedated suture removal is required, this will be arranged prior to discharge

