

Nuss Procedure for Pectus Excavatum Care Guideline with ERAS Protocols



Inclusion Criteria: All pectus excavatum patients undergoing the Nuss procedure

Exclusion Criteria: Any pectus excavatum procedure other than the Nuss procedure; PICU patients or recent PICU transfers to acute care; Complex medical patients or patient with underlying complex issues; Cardiothoracic Surgery patients

Post Operative Assessment

- VS and pain assessment per unit standards of care
- Alert NP/Resident that patient arrived to floor

Post Operative Interventions

- Admit to surgical floor
- Advance diet as soon as awake and alert, in PACU
- Saline lock IVF when tolerating PO
- Respiratory therapy: Incentive spirometer (IS) q1h while awake,
- PACU RN to call PT when patient awake, to notify of patient arrival to unit
- Early ambulation and OOB as tolerated
- Immediate assessment for nausea, may use Ondansetron prior to PT

Medication Management

- Antibiotic prophylaxis – Cefazolin 30 mg/kg IV 1h prior to incision (Max dose: 2,000 mg)
- Antiemetics -
 - Scopolamine Transdermal – place one disc behind ear at least 4 hours prior to surgery (place in preop), change q3 days as needed
- and**
- Ondansetron IV during hospital stay – q8h PRN nausea for 24 hours postoperative (transition to PO/ODT for home)
 - ≤ 40 kg: 0.1 mg/kg/dose as single dose (Max dose: 4 mg)
 - > 40 kg: 4 mg/dose as a single dose
- Bowel Regimen –
 - Miralax 17 g/day PO – hold for diarrhea.
 - Docusate: if no stool x 24h – hold for diarrhea
 - 100mg PO BID, Adolescents > 12 years

Pain Management

- Scheduled Ketorolac 0.5 mg/kg/dose IV q6h (Max dose: 15 mg)
- Hydromorphone 0.01 mg/kg IV PRN pain q3h (Max dose: 0.5 mg) (*STOP at 1600 if being d/c'd home the same day*)
- Acetaminophen/hydrocodone 325/5mg PO – 1-2 tabs PRN pain q4h
- Cyclobenzaprine 5 mg PO TID (PRN muscle spasm)

Discharge Criteria Same Day vs POD #1

- Encourage early discharge to home
- Tolerating diet for age
- Able to spontaneously urinate
- Vital signs stable
- Tolerating ambulation and has been seen by PT
- Pain management with PO meds only

Discharge Medications/Supplies

- Acetaminophen/hydrocodone 325 mg/5mg PO q4h PRN pain
- Ketorolac 10 mg PO q6h PRN pain
- Cyclobenzaprine 5mg PO TID PRN muscle spasm
- Miralax 17 g/day PO daily x 1 week – hold for diarrhea
- Ondansetron 4 mg PO q8h PRN nausea/vomiting
- Incentive Spirometer (IS)

Preoperative Education

- CHG product baths:
 - 2 days before surgery, at bedtime, shower with CHG product
 - One day before surgery, at bedtime, shower with regular soap followed by CHG product wipes
 - Day of surgery – CHG product wipes in pre-op
- GI prophylaxis – Start Miralax 2 days prior to surgery and continue for 1 week after surgery. Hold for diarrhea.
- Place scopolamine patch in pre-op
- Provide family with NUSS Procedure PFE and Preparing for Chest Wall Surgery handout {add link when posted}

Intraoperative Interventions

- Avoid hypothermia
- Minimize use of blood transfusion
- Use multiple approaches to treat pain and reduce opioid need
- Prevention of post-op nausea
- Prevention of post-op delirium

Recommendations/Considerations

- Indications for extending antibiotic prophylaxis beyond 24 hours post op described in CHOC Children's "Antibiotic Prophylaxis for Surgery Guideline"
- Pain Management - Refer to Patient Care Policy F918 - Pain Management; Policy F684 - Organizational Pain Policy; Policy F886 - Pain Assessment Scales

Patient Education/Resources

- Antibiotic prophylaxis – [click here](#)
- Patient and family education – Nuss packet, SSI Prevention
- Preop CHG bath – CHOC POI infection prevention (Before skin preparation: CHG used for skin preparation unless patient has documented allergy or otherwise contraindicated)
- Care recommendations following minimally invasive repair of pectus excavatum
- Pectus discharge instructions
- Incision care
- Safety awareness
- SSI and VTE prevention
- Post Surgery Check List {Link}
- Discharge Letter {Link}

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