Introduction

Target Population:

- This pathway is for use with children aged 10-18 years old with no underlying disease or comorbidity who have been consulted and admitted by the General and Thoracic Surgery Team for a pectus excavatum repair (NUSS or Ravitch procedure).
- Patients are to be removed from this pathway if there are significant postoperative complications (example bowel obstruction or prolonged TPN), or a change in diagnosis.

Target users:

- Surgeons, medical trainees (residents and fellows), Nurse Practitioners, and bedside nurses.
## Pectus Excavatum Repair Care Pathway

### Expected Date of Discharge:

<table>
<thead>
<tr>
<th>Pre-Operative</th>
<th>Recovery</th>
<th>Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hydration maintained</td>
<td>1. Abstinence</td>
<td>1. Abstinence</td>
</tr>
<tr>
<td>3. Patient prepared for OR</td>
<td>3. Mobility as tolerated</td>
<td>3. Ambulation</td>
</tr>
<tr>
<td>4. Child/family are advised of post-op bath. Wipes to be used upon arrival. Refer to procedure document</td>
<td>4. Able to tolerate clear fluids (immediately post-op)</td>
<td>4. Able to tolerate clear fluids (immediately post-op)</td>
</tr>
<tr>
<td></td>
<td>5. Incision intact, dry, and no drainage</td>
<td>5. Incision intact, dry, and no drainage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Child/family teaching completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Family understands discharge teaching</td>
</tr>
</tbody>
</table>

### Goals

- Obtain history
- Complete physical exam
- Assess vital signs
- Complete pain assessment (refer to Pain Assessment Guidelines)

### Physical Exam

- Complete pain assessment every 4 hours
- Ensure child has adequate pain control (refer to Pain Management Guidelines)
- Monitor vital signs as per BSI’s
- Obtain accurate in and out
- Complete wound assessment
- Complete JP drainage assessment and strip tubing every hours

### Diet & IV Fluids

- Administer D5W/0.9% NaCl with 20mEq KCl/L at maintenance
- Bolus as indicated
- Clear fluids to diet as tolerated
- TK/Os receive adequate oral fluid intake
- Refer to Fluid and Electrolyte Guidelines

### Medication

- PCA or Thoracic Epidural as per Acute Pain Services (APS); wean as tolerated
- If painless, administer Acetaminophen as indicated
- NSAIDs as needed to painfree
- For NPO procedure only, use Mephostenal (Robactrol); need to assess Acetaminophen total daily intake, not to exceed 75 mg/kg/day

### Activity & Education

- Activity as tolerated
- Consent for surgery
- Provide education re: post-operative care for child and caregiver
- Teach parent/caregiver about post-operative care of pectus excavatum repair; consider medical alert bracelet

<table>
<thead>
<tr>
<th>Medication</th>
<th>Activity</th>
<th>Activity as tolerated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pethidine, deep breathing and coughing, incentive spirometer, activity restrictions teaching, and mobility as tolerated</td>
<td>Activities of daily living as tolerated, encourage ambulation, and use of incentive spirometer, and no contact sports for 2-4 months</td>
<td>Activity: activities of daily living as tolerated with restrictions, encourage ambulation, ensure incentive spirometer, and no contact sports for 2-4 months</td>
</tr>
<tr>
<td>Review incision care; leave steristrips until they fall off or removed after 10 days</td>
<td>Review bathing; may shower or bathe 48 hours after surgery</td>
<td>Review when to call surgeon’s office: signs of wound infection, signs of sepsis (review signs and symptoms with caregiver), increasing chest pain or shortness of breath, and/or reoccurrence of pectus deformity</td>
</tr>
<tr>
<td>Review signs and symptoms of wound infection: fever, tachycardia, drainage, and/or increasing pain around incision, and/or fluid accumulations under incision</td>
<td></td>
<td>Book follow-up appointment for 4-6 weeks post-op including chest x-ray for Nuss procedure, and ensure Peds/NUSS card is provided</td>
</tr>
</tbody>
</table>

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### Guideline Group and Reviewers

#### Guideline Group Membership

1. Monping Chiang RN (EC), MS, NP General Surgery
2. Dina Prajapati RN(EC), BScN, MN, NP-PHC General Surgery

#### Internal Reviewers

1. Jacob Langer MD Pediatric Surgeon
2. Annie Fecteau MD Pediatric Surgeon
3. Sabrina Boodhan, Clinical Pharmacist

#### External Reviewer

1. Sharifa Himidan MD Pediatric Surgeon, North York General Hospital

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References


Attachments:

pectus_final_2019.pdf