

	Document Scope: Departmental	
	Document Type: Clinical Practice Guideline Approved on 2019-06-10 Next Review Date: 2021-06-09	
	<b>Pectus Excavatum Repair Care Pathway</b>	Version: 2


## 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.

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## Pectus Excavatum Repair Care Pathway

Pectus Excavatum Care Pathway		Expected Date of Discharge:	
	PRE-OPERATIVE	RECOVERY	DISCHARGE
GOALS	<ol style="list-style-type: none"> <li>1. Hydration maintained</li> <li>2. Adequate pain control</li> <li>3. Patient prepared for OR</li> <li>4. Child/family are advised of pre-op bath. Wipes to be used upon arrival. Refer to <a href="#">procedure document</a></li> </ol>	<ol style="list-style-type: none"> <li>1. Afebrile</li> <li>2. Adequate pain control</li> <li>3. Mobility as tolerated</li> <li>4. Able to tolerate clears (immediately post-op)</li> <li>5. Incision intact, dry, and no drainage</li> </ol>	<ol style="list-style-type: none"> <li>1. Afebrile</li> <li>2. Adequate pain control</li> <li>3. Ambulating</li> <li>4. Able to tolerate diet</li> <li>5. Incision dry &amp; intact</li> <li>6. Child/ caregiver teaching completed</li> <li>7. Family understands discharge teaching</li> </ol>
PHYSICAL EXAM	<ul style="list-style-type: none"> <li>• Obtain history</li> <li>• Complete physical exam</li> <li>• Assess vital signs</li> <li>• Complete pain assessment (refer to <a href="#">Pain Assessment Guidelines</a>)</li> </ul>	<ul style="list-style-type: none"> <li>• Complete pain assessment every 4 hours</li> <li>• Ensure child has adequate pain control (refer to <a href="#">Pain Management Guidelines</a>)</li> <li>• Monitor vital signs as per BPews</li> <li>• Obtain accurate in and out</li> <li>• Complete wound assessment</li> <li>• Complete JP drainage assessment and strip tubing every hours</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate pain control</li> <li>• JP drain removal if output &lt;30 ml/day</li> </ul>
DIET & IV FLUIDS	<ul style="list-style-type: none"> <li>• Ensure that patient is NPO</li> <li>• Administer D5W/0.9 NaCl with 20mmol KCL/L at maintenance</li> <li>• Bolus as indicated</li> <li>• Refer to <a href="#">Fluid and Electrolyte Guidelines</a></li> </ul>	<ul style="list-style-type: none"> <li>• Administer D5W/0.9 NaCl with 20mmol KCL/L at maintenance</li> <li>• Bolus as indicated</li> <li>• Clear fluids to diet as tolerated</li> <li>• TKVO once adequate oral fluid intake</li> <li>• Refer to <a href="#">Fluid and Electrolyte Guidelines</a></li> </ul>	<ul style="list-style-type: none"> <li>• Regular diet</li> </ul>
MEDICATION		<ul style="list-style-type: none"> <li>• PCA or Thoracic Epidural as per Acute Pain Services (APS); wean as tolerated</li> <li>• If pain/fever, administer Acetaminophen as indicated</li> <li>• NSAIDs as needed for pain/fever</li> <li>• For NUSS procedure only; use Methocarbamol (Robaxacet); need to assess Acetaminophen total daily intake, not to exceed 75 mg/Kg/day</li> </ul>	<ul style="list-style-type: none"> <li>• Provide prescription for oral narcotics</li> <li>• Ibuprofen/Acetaminophen as indicated</li> <li>• H2 Blocker if on NSAIDs</li> <li>• For NUSS procedure only: use Methocarbamol (Robaxacet) as indicated</li> <li>• For bowel management: Polyethylene Glycol 3350 (PEG 3350)</li> </ul>
ACTIVITY & EDUCATION	<ul style="list-style-type: none"> <li>• Activity: as tolerated</li> <li>• Consent for surgery</li> <li>• Provide education re: pre-operative process for child and caregiver</li> <li>• Teach parent/caregiver about post-operative care of pectus excavatum repair; consider medical alert bracelet</li> </ul>	<ul style="list-style-type: none"> <li>• Physiotherapy: deep breathing and coughing, incentive spirometer, activity restrictions teaching, and mobility as tolerated</li> <li>• Review incision care: leave steristrips until they fall off or remove after 10 days</li> <li>• Review activity: activities of daily living as tolerated, encourage ambulation, and use of incentive spirometer, and no contact sports for 2-6 months</li> <li>• Review bathing: may shower or bathe 48 hours after surgery</li> <li>• Review signs and symptoms of wound infection: fever, redness, drainage, and/or increasing pain around incision, and/or fluid accumulations under incision</li> </ul>	<ul style="list-style-type: none"> <li>• Activity: activities of daily living as tolerated with restrictions, encourage ambulation, ensure incentive spirometry, and review restrictions i.e. no contact sports for 2-6 months (to be assessed by surgeon during clinic appointment).</li> <li>• Review when to call surgeon's office: if 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.</li> <li>• Book follow-up appointment for 6-8 weeks post-op including chest x-ray for NUSS procedure; and ensure Pectus/NUSS card is provided</li> </ul>

## PRINTABLE VERSION

### Guideline Group and Reviewers

#### Guideline Group Membership

1. Monping Chiang RN (EC), MS, NP General Surgery
2. Fatma A. Rajwani, MScPT, HBSc, Quality Management

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### 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

### References

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### Attachments:

[pectus\\_final\\_2019.pdf](#)