

Pectus Excavatum Repair Care Pathway

Version: 2

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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									
PRE-OPERATIVE				RECOVERY				DISCHARGE	
GOALS	1. Hydration maintained 2. Adequate pain control 3. Patient prepared for OR			1. Afebrile 2. Adequate pain control 3. Mobility as tolerated 4. Able to tolerate clears (immediately post-op) 5. Incision intact, no drainage; dry and intact				1. Afebrile X 24 hours 2. Adequate pain control 3. Able to tolerate diet 4. Incision dry and intact 5. Patient/ caregiver teaching completed 6. Ambulating 7. Bowel movement	
PHYSICAL EXAM	Obtain history	Complete physical exam	Assess vital signs	NUSS: Chest Xray in PACU for bar placement	Ensure child has adequate pain control (Refer to Pain Management Guidelines)	Monitor vital signs every 4 hours	Adequate pain control	JP drain removal if output <30 ml/day	
	Complete pain assessment (refer to Pain Assessment Guidelines)			Complete pain assessment every 4 hours	Obtain accurate in and out	Complete wound assessment	Complete JP drainage assessment and strip tubing every 4 hours (Ravitch procedure)		
DIET & IV FLUIDS	Ensure patient is NPO	Administer D5W/0.9 NaCl 20 mmol KCL/L at maintenance		Clear fluids to diet as tolerated	Administer D5W and 0.9 NaCl with 20mmol KCL/L at maintenance until adequate oral fluid intake	Bolus as indicated	TKVO once adequate oral fluid intake	Diet as tolerated	PIV removed prior to discharge
				Refer to Fluid and Electrolyte Management Guidelines					
MEDICATION	Medication Reconciliation: review home meds			Acute Pain Service (APS): PCA and oral opioid combination; transition to oral medications on Postoperative day 1	Acetaminophen and NSAIDs for pain/fever	Bowel management: Peg 17 gr BID Enema and/or suppository PRN	Provide prescription for oral narcotics	Ibuprofen/ Acetaminophen	Provide Medication Calendar
				For NUSS procedure only: use Methocarbamol (Robaxacet); need to assess Acetaminophen total daily intake, not to exceed 75 mg/kg/day	Restart Gabapentin if taking preoperatively	Cefazolin 2 doses postop	For NUSS procedure only: use Methocarbamol (Robaxacet) as indicated	For bowel management: Polyethylene Glycol 3350 (PEG 3350)	
ACTIVITY	Activity as tolerated			Physiotherapy: deep breathing and coughing, incentive spirometer (10 breaths/hr when awake), activity restriction teaching		Activity: Progress with self care, sitting in bed and getting out of bed independently	Activities of daily living as tolerated with restriction, encourage ambulation, ensure incentive spirometry, and activity restrictions: NUSS: no contact sports and heavy lifting x 3 months Ravitch: no sports x 3 months and no contact sports x 6 months to be re-assessed by surgeon during clinic appointment)		
EDUCATION	Educate parents/ caregiver about pre-operative process	Review and sign consent form for surgery		Review incision care: Leave SteriStrips until fall off on own or remove after 10 days		Review activity: Activities of daily living as tolerated, encourage ambulation and use of incentive spirometer. NUSS: no contact sports and heavy lifting x 3 months Ravitch: no sports x 3 months and no contact sports x 6 months	Review when to call surgeon's office: 1. Wound infection 2. Signs of sepsis (review signs with parent/ caregiver) 3. Increasing chest pain or shortness of breath 4. Recurrence of pectus deformity		
	Teach parents/ caregiver about post-operative care of pectus excavatum repair; consider medical alert bracelet			Review signs and symptoms of wound infection: 1. Fever 2. Redness around incision 3. Drainage from incision 4. Increasing pain around incision 5. Fluid accumulations under incision				Book follow-up appointment and chest x-ray for NUSS procedure in 4 weeks Pectus Bar/ NUSS card is provided Follow up with Transitional Pain Service virtually	

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PRINTABLE VERSION

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Attachments:

[pectus pathway final](#)