



	PAIN MANAGEMENT	DIET + BOWEL REGIMEN	NURSING	ACTIVITY
	Clinic Consultation: PT Pre-Hab Skin preparation per Chlorhexidine Shower Instructions Incentive spirometer Nutrition education PRN specialist consultations, as needed Patient and Family Education Booklet			
	Patient Surgery Scheduled			
Pre-Op	7 days prior, at home: Stop aspirin and NSAIDs Day of surgery, at hospital: Neuropathic pain: Pregabalin PO 25-50mg (<50kg: 25mg, >50kg: 50mg) If can't take pill, give Gabapentin liquid Nausea: scopolamine patch	2 days prior, at home: Electrolyte solution	<ul style="list-style-type: none"> •Pre-op checklist •Skin preparation per Chlorhexidine Shower Instructions •Child Life Specialist consult 	
Intra-Op	Regional: Cryoablation, intercostal block IV: Dilaudid (PRN) (alternative: morphine or fentanyl), Ofirmev x1, Ketamine x1, Valium x1 PRN, Toradol IV Antibiotics: One dose of IV Cefazolin. For cephalosporin allergy, substitute clindamycin. Nausea: Zofran Q6H, PRN		<ul style="list-style-type: none"> •PIV x 2 (one on each side) 	<ul style="list-style-type: none"> •Apply MCD •Chest XR – 1 view (strongly recommended)
Post-Op Day 0	Pain management per surgery team; if PCA ordered, pain team will manage PCA Continue: PCA (demand only) if requiring PRN opioids in PACU Valium PO Q6H Zofran PRN Start: Tylenol PO Q6H, Toradol IV Q6H, Oxycodone PO Q6H PRN in p.m. If neuropathic pain symptoms consider, Lyrica PO Q12H (alternative: liquid Gabapentin TID x3 days) Antibiotics: IV Cefazolin for 48hours. For cephalosporin allergy, substitute clindamycin. Pre-check, Start IV fluids and add to post-op order set	Start general diet (encourage small bites of cracker) Place order for: Colace 100mg PO BID If requiring PCA, add Miralax 17g BID to start POD1	<ul style="list-style-type: none"> •Wound assessment •Skin care •PCA, if applicable •PIV x 2 •Encourage bite of cracker 	Bedside RN initiates patient/family stepping stones PT consult order placed RN to initiate with patient and family: <ul style="list-style-type: none"> • Transition to sitting EOB with HOB elevated (progress to HOB lowered as able) • Incentive spirometer/Pulmonary Toilet 10 breaths/hour when awake • Wear MCD • Self care (wipe face, brush teeth, feed self) Activity Limitations: <ul style="list-style-type: none"> • Minimize twisting • Minimize excessive pushing or pulling with your arms • Minimize bending sideways • Do not lift heavy objects >10 pounds
Post-Op Day 1	Continue: Valium PO Q6H, Zofran PRN, Tylenol PO Q6H, Toradol IV Q6H, Oxycodone PO Q6H If neuropathic pain symptoms consider, Lyrica PO Q12H (alternative: liquid Gabapentin TID x3 days)	Encourage oral intake, prune juice Start colace If requiring PCA, add miralax	<ul style="list-style-type: none"> •Child Life Specialist consult •Wound assessment •Skin care •PCA, if applicable •Remove urinary catheter by 4am if applicable •Void check 6 hours post foley removal •If no urination perform US bladder scan •PIV x 2 	RN with Parent or Family (A.M.) <ul style="list-style-type: none"> • Out of bed with head elevated <30 degrees • Eat meals in chair • Goal: Ambulate to/from bathroom and in hallway • Incentive spirometer/Pulmonary Toilet 10 breaths/hour • Same activity restrictions • Continue stepping stones, MCD and self care
				PT with Parent or Family (P.M) <ul style="list-style-type: none"> • Out of bed with head of bed flat and walking • Ambulate >250 ft in hallway x2 • Climb stairs • Demonstrate independence in completion of home exercise program reviewed by PT • Cleared by PT for discharge • Incentive spirometer/pulmonary toilet 10breaths/hour • Potential discharge
Discharge	Continue at home per discharge medication schedule: <ul style="list-style-type: none"> • Alternate Tylenol/Ibuprofen PO Q3H for first week, then as needed • Add Oxycodone PO Q6 PRN to be taken with Tylenol if needed (Prescribe 12 - 5mg pills) 3 days • Add Valium PO Q6 PRN to be taken with Ibuprofen if needed (Prescribe 12 – 2mg pills) 3 days 	For first week, if no bowel movement in 24 hours: <ul style="list-style-type: none"> • Colace 100mg, PRN 2x/day • Miralax 17gm, PRN, one cap 1x/day 		<ul style="list-style-type: none"> • Fill discharge prescriptions • Schedule follow up appointment in 2 weeks (CXR 2 view at 2 weeks if needed) Continue at home: <ul style="list-style-type: none"> • Activity limitations until 2 week follow up appointment • Refer to Patient and Family Education Booklet for additional activity restrictions • PT goals for home: 10 min walk 3x/day, self care, progress to completing mobility independently, complete HEP 3x/daily • Keep good posture while sitting and standing • Incentive spirometer/pulmonary toilet 10 breaths/hour until 2 week follow up appointment



Evidence

Chen Z, Amos EB, Luo H, Su C, Zhong B, Zou J, Lei Y. Comparative Pulmonary Functional Recovery After Nuss and Ravitch Procedures For Pectus Excavatum Repair: A Meta-Analysis. *J Cardiothorac Surg* 2012; 7: 101. DOI: 10.1186/1749-8090-7-101.

Goretsky MJ, Obermeyer RJ. Chest Wall Deformities in Pediatric Surgery. *Surgical Clinics of North America* 2012; 92: 669-684. DOI: 10.1016/j.suc.2012.03.001. PubMed PMID: 22595715.

Kelly RE Jr, Cash RF, Shamberger RC, Mitchell KK, Mellins RB, et al. Surgical Repair of Pectus Excavatum Markedly Improves Body Image and Perceived Ability for Physical Activity: Multicenter Study. *Pediatrics* 2008; 122: 1218-22. DOI: 10.1542/peds.2007-2723.

St. Peter SD, Juang D, Garey CL, Laituri CA, Ostlie DJ, Sharp RJ, Snyder CL. A Novel Measure for Pectus Excavatum: The Correction Index. *J Pediatr Surg* 2011; 46: 2270-3. DOI: 10.1016/j.jpedsurg.2011.09.009.