Cleft Palate Care Guideline



Inclusion Criteria:

- Undergoing primary (non-revision) unilateral or bilateral cleft palate repair surgery
- Between the age of 6 and 18 months
- Primary surgeon for the procedure in the CHOC Department of Plastic Surgery
- *If a patient does not met these criteria, use of the protocol should be discussed by surgical and anesthesia team on a case-by-case basis

Exclusion Criteria:

- Patients undergoing revision cleft palate surgery may still benefit from this protocol these should be discussed by surgical and anesthesia teams on a case-by-case basis
- Patients above the age of 18 months may still benefit from this protocol these should be discussed by surgical and anesthesia teams on a case-by-case basis
- Patients undergoing additional procedures during the same operative case may still benefit from the protocol – these should be discussed by involved surgical teams and anesthesia on a case-by-case basis

Preoperative: Given in OR prior to incision

- IV Cefazolin 30mg/kg IV ONE TIME within 1 hour of incision -
- Max dose: 2g for patients ≤50kg
- IV Dexamethasone 0.5mg/kg x 1 Max dose: 40mg/day
- IV Tranexamic acid (TXA) 30mg/kg bolus x 1

Intraoperative: During Surgery

- IV Tranexamic acid (TXA) 10 mg/kg/hr
- Minimize narcotic analgesia

Extubation: After completion of surgery before extubation

- IV Acetaminophen 15mg/kg x1 Max daily dose: 75 mg/kg/day for patients ≤ 50 kg
- · IV Dexmedetomidine (Precedex) bolus titrated to effect and begin drip at 1 mcg/kg/hr
- Minimize narcotic analgesia

Postoperative

PACU: After extubation, before arrival to floor

- Continue Dexmedetomidine (Precedex) drip x 1 hour (at least):
 - Titrate drip to SBS (State Behavioral Scale see attached) score of 0, increasing dose by 0.25 mcg/kg/hr g15 min
 - Remain on drip x 1 hour after reaching SBS score of 0
 - Wean drip to off by decreasing dose by half q20 min to 0.5 mcg/kg/hr, remain at 0.5 mcg/kg/hr for 20 min then discontinue drip
 - o Once drip is off, patient must remain in PACU for 20 minutes prior to transfer to the floor
 - Start IV Ketorolac 0.5 mg/kg q8 hrs x 3 doses, first dose in PACU max dose: 15mg/dose
- Discontinue TXA in PACU prior to transfer to floor
- Minimize narcotic analgesia
- Euvolemia
- · Clear liquid or breast milk diet once tongue stitch is removed in PACU

Surgical Floor: After PACU, before discharge

- Complete IV Ketorolac 0.5mg/kg q8 hours x 3 doses total Max dose: 15mg/dose
- Scheduled PO Acetaminophen 15mg/kg q6h starting 6 hours after extubation Max daily dose: 75 mg/kg/day
- for patients ≤ 50 kg • Minimize narcotic analgesia
- Minimize narcotic analgesia
 Euvolomic
- Euvolemia
- Full liquid diet

Discharge Criteria

- Tolerating full liquid diet
- Adequate pain control

Reassess the appropriateness of Care Guidelines as condition changes and 24 hrs after admission. This guideline is a tool to aid clinical decision making. It is not a standard of care. The physician should deviate from the guideline when clinical judgment so indicates.

Patient Education

- Cerner Cleft Palate Repair
- Surgical Site Infection Prevention

1 of 3

Page

Cleft Palate Care Guideline



References Cleft Palate Care Guideline

- Kagedan, D. J., Ahmed, M., Devitt, K. S., & Wei, A. C. (2014). Enhanced recovery after pancreatic surgery: a systematic review of the evidence. *HPB: The Offical Journal of the International Hepato Pancreato Biliary Association*, 17(1), 11-16. doi:https://doi.org/10.1111/hpb.12265 (Level V)
- Kaminsky, O., Fortier, M. A., Jenkins, B. N., Stevenson, R. S., Gold, J. I., Zuk, J., . . . Kain, Z. N. (2019). Children and their parents' assessment of postoperative surgical pain: Agree or disagree? *International Journal of Pediatric Otohinolaryngology*, *123*, 84-92. doi:https://doi.org/10.1016/j.ijporl.2019.04.005 (Level III)
- Merkel, S. I., Voepel-Lewis, T., Shayevitz, J. R., & Malviya, S. (1997). The FLACC: a behavioral scale for scoring postoperative pain in young children. *Pediatric Nursing*, 23(3), 293-297. (Level V)
- Merkel, S., Voepel-Lewis, T., & Malviya, S. (2002). Pain assessment in infants and young children: the FLACC scale. *The American Journal of Nursing*, *102*(10), 55-58. doi:https://doi.org/10.1097/00000446-200210000-00024 (Level V)
- Miller, T. E., Thacker, J. K., White, W. D., Mantyh, C., Migaly, J., Jin, J., . . . Gan, T. J. (2014). Reduced length of hospital stay in colorectal surgery after implementation of an enhanced recovery protocol. *Anesthesia and Analgesia*, *118*(5), 1052-1061. doi:https://doi.org/10.1213/ANE.000000000000206 (Level III)
- Pearson, K. L., & Hall, N. J. (2017). What is the role of enhanced recovery after surgery in children? A scoping review. *Pediatric Surgery International*, 33(1), 43-51. doi:https://doi.org/10.1007/s00383-016-3986-y (Level IV)
- Shinnick, J. K., Short, H. L., Heiss, K. F., Santore, M. T., Blakely, M. L., & Raval, M. V. (2016). Enhancing recovery in pediatric surgery: a review of the literature. *The Journal of Surgical Research*, 202(1), 165-176. doi:https://doi.org/10.1016/j.jss.2015.12.051 (Level V)
- Short, H. L., Taylor, N., Piper, K., & Raval, M. V. (2018). Appropriateness of a pediatric-specific enhanced recovery protocol using a modified Delphi process and multidisciplinary expert panel. *Journal of Pediatric Surgery*, 53(4), 592-598. doi:https://doi.org/10.1016/j.jpedsurg.2017.09.008 (Level V)
- Tang, J., Humes, D. J., Gemmil, E., Welch, N. T., Parson, S. L., & Catton, J. A. (2013). Reduction in length of stay for patients undergoing oesophageal and gastric resections with implementation of enhanced recovery packages. *Annals of the Royal College of Surgeons of England*, 95(5), 323-328. doi:https:// doi.org/10.1308/003588413X13629960046039 (Level III)
- Uitti, J. M., Salantera, S., Laine, M. K., Tähtinen, P. A., & Ruohola, A. (2018). Adaptation of pain scales for parent observation: are pain scales and symptoms useful in detecting pain of young children with the suspicion of acute otitis media? *BMC Pediatrics*, 18(1), 392. doi:https://doi.org/10.1186/s12887-018-1361-y (Level III)
- Varadhan, K. K., Neal, K. R., Dejong, C. H., Fearon, K. C., Ljungqvist, O., & Lobo, D. N. (2010). The enhanced recovery after surgery (ERAS) pathway for patients undergoing major elective open colorectal surgery: A meta-analysis of randomized controlled trials. *Clinical Nutrition*, 29(4), 434-440. doi:https://doi.org/10.1016/j.clnu.2010.01.004 (Level I)

State Behavioral Scale (SBS) ¹ Score as patient's response to voice then touch then noxious stimuli (Planned ETT suctioning or <5 seconds of nail bed pressure)		
Score	Description	Definition
-3	Unresponsive	No spontaneous respiratory effort No cough or coughs only with suctioning No response to noxious stimuli Unable to pay attention to care provider Does not distress with any procedure (including noxious) Does not move
-2	Responsive to noxious stimuli	Spontaneous yet supported breathing Coughs with suctioning/repositioning Responds to noxious stimuli Unable to pay attention to care provider Will distress with a noxious procedure Does not move/occasional movement of extremities or shifting of position
-1	Responsive to gentle touch or voice	Spontaneous but ineffective non-supported breaths Coughs with suctioning/repositioning Responds to touch/voice Able to pay attention but drifts off after stimulation Distresses with procedures Able to calm with comforting touch or voice when stimulus removed Occasional movement of extremities or shifting of position
0	Awake and Able to calm	Spontaneous and effective breathing Coughs when repositioned/Occasional spontaneous cough Responds to voice/No external stimulus is required to elicit response Spontaneously pays attention to care provider Distresses with procedures Able to calm with comforting touch or voice when stimulus removed Occasional movement of extremities or shifting of position/increased movement (restless, squirming)
+1	Restless and difficult to calm	Spontaneous effective breathing/Having difficulty breathing with ventilator Occasional spontaneous cough Responds to voice/ No external stimulus is required to elicit response Drifts off/ Spontaneously pays attention to care provider Intermittently unsafe Does not consistently calm despite 5 minute attempt/unable to console Increased movement (restless, squirming)
+2	Agitated	May have difficulty breathing with ventilator Coughing spontaneously No external stimulus required to elicit response Spontaneously pays attention to care provider Unsafe (biting ETT, pulling at lines, cannot be left alone) Unable to console Increased movement (restless, squirming or thrashing side-to-side, kicking legs)

Retrieved from http://www.marthaaqcurley.com/uploads/8/9/8/6/8986925/sbs-form.pdf