

Dr Brown's Medical Webinar Question and Answer

Holly Schifsky. 11.29.22

From Feeding to Eating: Assessment and Oral Feeding Interventions for Infants with Tracheostomy Tubes

1. Do you have an article you recommend about bolus entrapment with the presence of an inflated cuff?
A: Please refer to the bibliography on the last three slides. The articles with the lead authors of Pullens, Sobotka, and Henningfeld provide a deeper understanding to bolus entrapment.
2. Is there an increased risk of aspiration if orally feeding an infant while on a vent vs waiting until they are off the vent? Or is it better to start oral feedings as early as possible as long as they meet the vent recommendations for initiating feeds?
A: The risk of aspiration is directly related to the placement of the tracheostomy tube, not the need for a ventilator. Literature supports starting oral feeding once the infant meets the ventilator settings and demonstrates physiological stability as the risk of delayed neurological feeding skills is prevalent in these infants due to prolonged intubation during a critical window of oral feeding development skills.
3. Is there a preference for R or L sidelying feeding positioning?
A: Position of sidelying is dependent on the infant medical history. If the infant demonstrates poor lower esophageal maturation and risk for reflux, left sidelying would be preferred. If the infant demonstrates poor gastric emptying or vocal cord injury due to prolonged intubation/surgical procedure; then right sidelying would be preferred.
4. Do you ever use the blue dye test anymore?
A: We will use the Modified Evans Blue Dye test if the infant demonstrates poor oral secretion management and you are not able to progress their oral feeding plan. This does not replace a standardized swallow assessment (VFSS or FEES) as the accuracy of the blue dye test is inferior to the objective information obtained from a standardized assessment. Reference below:

Béchet S, Hill F, Gilheaney Ó, Walshe M. Diagnostic Accuracy of the Modified Evan's Blue Dye Test in Detecting Aspiration in Patients with Tracheostomy: A Systematic Review of the Evidence. *Dysphagia*. 2016 Dec;31(6):721-729. doi: 10.1007/s00455-016-9737-3. Epub 2016 Aug 16. PMID: 27530728.
5. Could you address swaddling in babies with trach?
A: Swaddling provides proprioceptive input and boundaries with static support during the dynamic task of oral feeding/eating. Infants with a trach may require use of swaddling for postural control, but carefully assess the amount of support to the ribcage, as an over swaddled infant can have reduced ribcage expansion that can create an increase in work of breathing and air hunger.
6. What assessment tool do you use for this population?
A: For initial feeding experiences we assess the oral phase with the NOMAS (Neonatal Oral Motor Assessment Scale) and the progress within 5-10 days of oral feeding to a VFSS (Video

Fluoroscopy Swallow assessment). There are several assessment tools for use once the infant has established a level of stability and safety with feeding including, but not limited to: Ability for Basic Feeding and Swallowing Scale for Children, Behavioral Assessment Scale of Oral Functions in Feeding, Oral Motor Assessment Scale, Schedule for Oral Motor Assessment, and Screening Tool of Feeding Problems Applied to Children.

7. I had a question on 'pacifier with high silicone', which are some that you recommend?

A: I would reference you to the Zimmerman article in the bibliography. Examples of pacifiers with high silicone load and integrity would include: Soothie, Avent pacifier, MAM pacifier, and Silicone Soother.

8. Would you ever consider using a blue dye test prior to a VFFS or has that been proven unreliable?

A: If the infant was unable to manage oral secretions and we were unable to progress to oral feeding, I would complete the blue dye test. If the infant demonstrates oral skills to progress to pharyngeal activation with oral feeding; I would offer small oral feeding attempts without a blue dye test and then progress to a VFSS. Please refer to the above question and reference.

9. Can tracheostomized babies with fully inflated cuffs burp?

A: Yes, they can burp through their mouth if their tracheostomy tube is the appropriate size and only using 2/3 of the diameter of their airway. If the tracheostomy tube takes more than 2/3 of their airway, there can be pressure from the airway applied to the esophagus and this limits burping. When an infant has their tracheostomy tube upsized this can be a challenge until they grow into the larger tracheostomy.

10. Do you have research that suggests that aspiration of EBM (expressed breast milk) is safer than aspiration of formula?

A: The article by Hersh (2022) provides information on expressed breastmilk and the lower risk of aspiration pneumonia with improved swallow activation.

Hersh, C. J., Sorbo, J., Moreno, J. M., Hartnick, E., Fracchia, M. S., & Hartnick, C. J. (2022). Aspiration does not mean the end of a breast-feeding relationship. *International Journal of Pediatric Otorhinolaryngology*, 161, 111263.

11. Do you have any general recommendations of introducing oral feedings with older infants or toddlers with trach who would not likely be using a bottle? Would those vent settings you described earlier still be applicable?

A: Older infants that would be offered purees or tastes of food would use the same vent setting recommendations with a PEEP of 10 or less and FiO2 of 50% or less. If the child is over 6 months corrected age, we will consider a PEEP of 12 as the PEEP is often weight adjusted with larger infants and this higher PEEP would still allow for swallow activation.

12. Does gastric decompression have to be done by only RN?

A: No, in our unit the feeding therapists and parents are trained in gastric decompression for a gastrostomy tube. NG/OG require a RN for gastric decompression.