

The NOVEL Project

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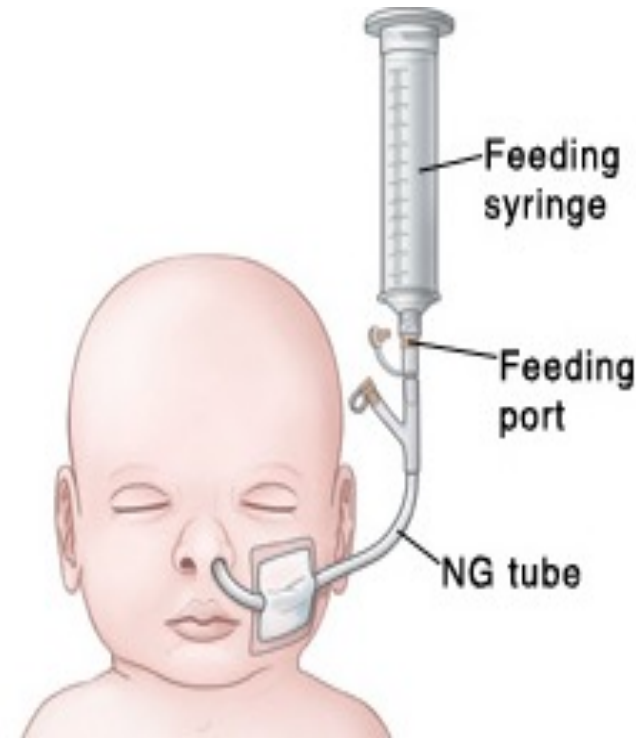
Pediatric Gastroenterology, Hepatology and Nutrition

Atrium Health Levine Children's Hospital

Charlotte, NC

Objectives

- ▶ To describe the mission of the NOVEL project
- ▶ To explain the rationale for development of practice changes regarding nasogastric tube location confirmation
- ▶ To discuss new practice recommendations and resources developed by the NOVEL project



What is the NOVEL Project?

- ▶ New Opportunities for Verification of Enteral Tube Location
- ▶ The NOVEL Project is a multidisciplinary collaborative approach to address standardizing practice associated with insertion and ongoing verification of NGT (nasogastric tube) placement. Created by ASPEN (American Society for Parenteral and Enteral Nutrition)
- ▶ The NOVEL Project's missions are to:
 - ▶ Determine best practices & develop new guidelines on NGT placement and location confirmation
 - ▶ Disseminate knowledge to healthcare professionals to improve clinical practice
 - ▶ Work with engineers in the industry to develop non-radiologic methods to verify placement of NGTs

Background

- ▶ Inconsistencies between healthcare institutions regarding care of the patient with NGTs, which has led to serious safety events
 - ▶ Deahna Visscher's story
- ▶ NGT misplacement reporting in the US inconsistent. In the UK, this is declared as a “Never Event”
- ▶ Need for clear guidelines and a standard of care-The NOVEL Project has published a position paper on NGT placement and verification
 - ▶ Best Practice Recommendations From the NOVEL Project
<https://onlinelibrary.wiley.com/doi/full/10.1002/ncp.10189>

Research Based Recommendations

- ▶ The gold standard remains X-ray verification- although there is concern regarding cumulative radiation exposure as well as interpretation of the X-ray
- ▶ NEMU (Nose-Earlobe-Xiphoid-Midline Umbilicus)
- ▶ Auscultation of air bolus or visualization of gastric contents alone is **NOT** a reliable or evidenced based way to confirm placement of NGTs
- ▶ Measurement of the acidity, or pH, of gastric aspirate is a **recommended method** to evaluate placement

Verification of Placement with pH

- ▶ Studies have shown that a pH of <5.5 from gastric aspirate obtained from an NGT is a reliable indicator that tube is properly placed in the stomach- This is an **evidence-based method** for verifying placement



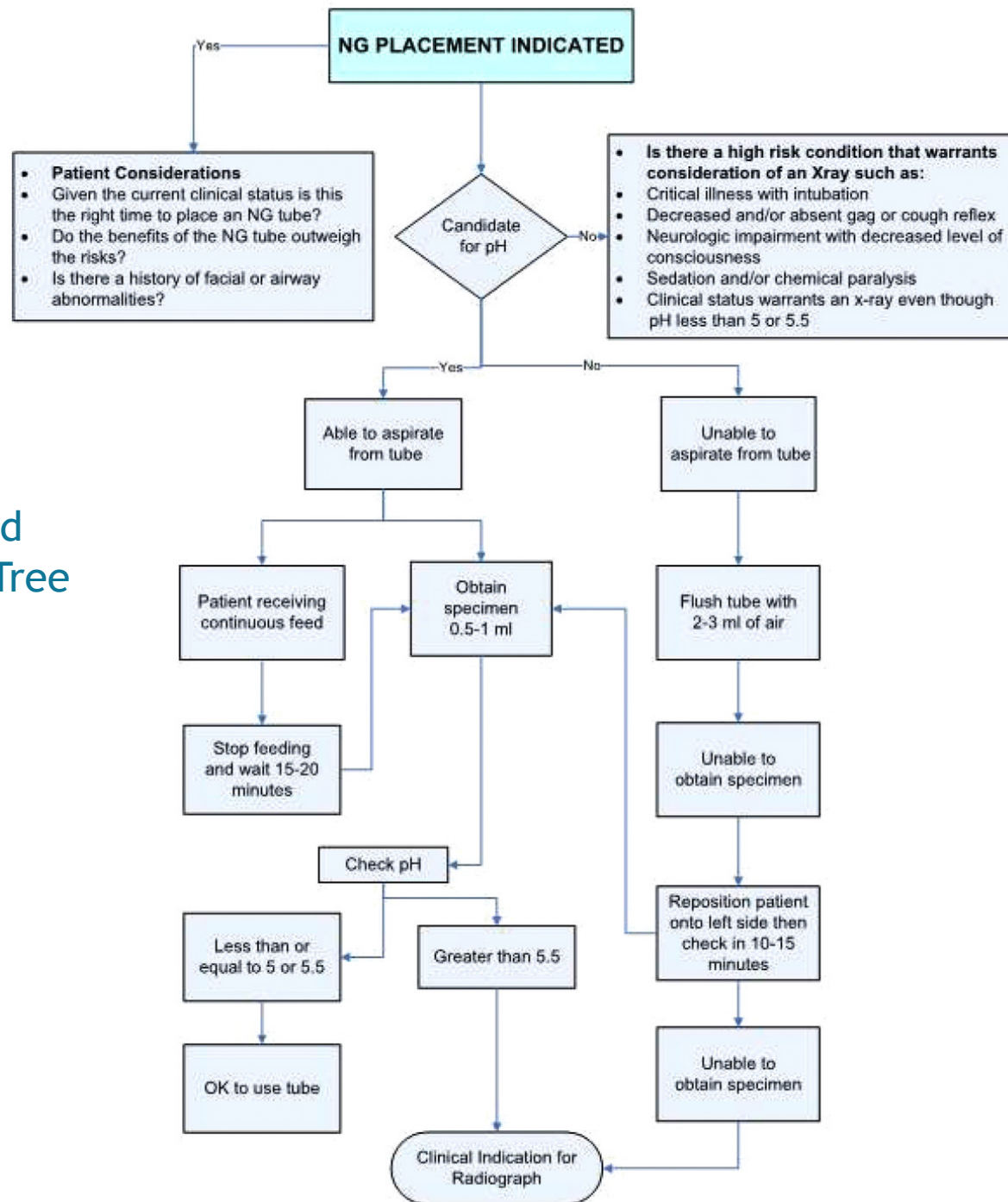


Figure 1.
NGT placement and
Verification Decision Tree

Educational Resources

- ▶ The NOVEL Project has created two audience-specific videos highlighting best practices for inserting and verifying placement of NG tubes in pediatric patients
 - ▶ Video for Professionals:
<https://www.youtube.com/watch?v=k8aH0TyJYhc&feature=youtu.be>
 - ▶ Video for Caregivers:
<https://www.youtube.com/watch?v=gxO8vHbUfUw&feature=youtu.be>
- ▶ Patient Safety Movement Foundation-NG Feeding Tube Placement & Verification Panel:
<https://www.youtube.com/watch?v=BfBl6HpvXgA&t=53s>
- ▶ The NOVEL Project website:
<http://www.nutritioncare.org/NOVEL/>

Members of the NOVEL Taskforce

- ▶ Beth Lyman, MSN, RN, CNSC Children's Mercy Kansas City (Project Chair, representing ASPEN)
- ▶ Peggi Guenter, PhD, RN, FAAN, FASPEN, ASPEN Staff
- ▶ Sharon Irving PhD, CRNP, FCCM, FAAN; University of Pennsylvania School of Nursing, The Children's Hospital of Philadelphia (representing AACN)
- ▶ Carol Kemper PhD, RN; Children's Mercy Kansas City (representing Patient Safety Officers)
- ▶ Candice Moore, BSN, RN; Cincinnati Children's Hospital (representing home care)
- ▶ LaDonna Northington RN, DNS; University of Mississippi School of Nursing (representing Society of Pediatric Nursing)
- ▶ Katie Oleksak, MSN, FNP; Pediatric Gastroenterology, Levine Children's Specialty Center (representing Association of Pediatric Gastroenterology and Nutrition Nurses (APGNN))
- ▶ Gina Rempel MD, FRCPC, FAAP; Children's Hospital Winnipeg (representing ASPEN and international members)
- ▶ Wednesday Sevilla, MD, MPH, CNSC; Children's Hospital of Pittsburgh, UPMC (representing ASPEN)
- ▶ Kerry Wilder, RN, MBA from Texas Scottish Rite Hospital (representing NANN)
- ▶ Deahna Visscher; Parent Representative and Safety Advocate Denver, CO

How Can You Help?

- ▶ Spread the word and advocate for your patients and families
- ▶ Work with your hospital administration
- ▶ Share the position paper and video links with colleagues and your organizations
- ▶ Contact members of the NOVEL project with any ideas, concerns or questions that arise regarding the topics of verification of placement of NGTs



References

- ▶ Irving S, Lyman B, Northington L, Bartlett JA, Kemper C. Nasogastric tube placement and verification in children: review of the current literature. *Critical Care Nursing*. 2014;34(3):67-78.
- ▶ Irving SY; Rempel G; Lyman B; Sevilla WMA; Northington L; Guenter P;, The American Society for Parenteral and Enteral Nutrition. Pediatric Nasogastric Tube Placement and Verification: Best Practice Recommendations From the NOVEL Project. *Nutrition in Clinical Practice*. 2018;00-00.
- ▶ Northington, L., Lyman, B., Guenter, P., Irving, S.Y., Duesing, L. (2017). Current practices in home management of nasogastric tube placement in pediatric patients: A survey of parents and homecare providers. *Journal of Pediatric Nursing*, 33: 46-53.



Thank you!