

# NOVEL News aspEN

## New Opportunities for Verification of Enteral Tube Location Project

### LETTER FROM THE CHAIR, BETH LYMAN

Greetings all from the NOVEL project members. I like to write this newsletter at the end of each year to give an update on what we have accomplished and what we plan for the next year. We have expanded our membership this year and as our most recently completed study indicates, there is still much work to do. We look forward to working with nurse administrators and NICU staff. Below is a list of our current members:

Beth Lyman, MSN, RN, CNSC, FASPEN, FAAN;  
representing ASPEN

Gina Rempel, MD, FRCPC; representing ASPEN

LaDonna Northington, RN, DNS; representing Society  
of Pediatric Nurses

Sharon Irving, PhD, CRNP, FCCM, FAAN, FASPEN;  
representing the American Association of Critical Care  
Nurses

Carol Kemper, PhD, RN, CPHQ, CPPS, FAAN;  
representing CHA Patient Safety Organization

Rosemary Pauley, APRN, MS; representing the  
Association of Pediatric Gastroenterology and Nutrition  
Nurses

Cheri Hunt, BSN, MHA, RN, NEA-BC; representing  
Nurse Administrators

Leslie Parker, PhD, ARNP (NNP-BC); representing  
NICU

Peggi Guenter, PhD, RN, FAAN, FASPEN;  
representing ASPEN

Candice Moore, MSN, RN; representing outpatient care

Deahna Visscher; parent member

### SUMMARY OF OUR 2021 ACTIVITIES

This month, LaDonna Northington presented at Transform 21 (the American Association of Colleges of Nursing) on “Does Evidence Change Practice: A Five Year Follow-up Study on NGT Verification in Pediatrics.”

In November, Sharon Irving and I participated in a webinar sponsored by the Pennsylvania Patient Safety Authority that focused on NG tube placement verification. We discussed the concept of de-implementation of non-evidence-based methods of NG tube placement verification and work done by the NOVEL project to advance the use of evidence-based methods.

Also in December, Rosemary Pauley did an update on the NOVEL project for the Association of Pediatric Gastroenterology and Nutrition Nurses.

In October, Cheri Hunt, Deahna Visscher and I did a webinar for Chief Nursing Officers and other staff of children’s hospitals. This webinar was sponsored by Children’s Healthcare Association. The topic was NG placement verification which focused, again, on the continued use of non-evidence-based methods of NG tube placement verification (primarily auscultation) and work done by the NOVEL project. While our information was well received, most of the comments came after our last speaker, Deahna Visscher. She shared the story of her son’s death due to a misplaced NG tube that was verified using auscultation. If you have never heard her story, I encourage you to see the video made by the Patient Safety Authority – it always helps keep us directed on our goal.

## A BRIEF DESCRIPTION OF HOW THE BEST PRACTICE RECOMMENDATIONS ARE BEING UTILIZED

Practice-focused doctoral programs are heavily focused on practice that is evidence-based reflecting the application of research findings. Students in a practice-focused program generally carry out a practice application-oriented “final Doctor of Nursing Practice (DNP) Project (American Association of Colleges of Nursing 2006).” As the Clinical Nurse Specialist of a Level III Neonatal Intensive Care Unit, the DNP student identified inconsistencies in practice related to initial and ongoing enteral access device (EAD) confirmation techniques. Standardization of nursing care into a policy, procedure and/or protocol using evidence-based practice methods of placement and initial and ongoing confirmation of EAD location is necessary to avoid the risk of compromising patient safety (AACN, 2016; CHPSO, 2012; Irving et al., 2014; Irving et al., 2018; NPSA, 2011; PSM, 2020). The purpose of the DNP project is to implement an evidence-based protocol utilizing the American Society for Parenteral and Enteral Nutrition’s NOVEL Project 2018 consensus recommendations for best practice related to EAD location verification in pediatric patients. Increasing nursing competency and knowledge, implementation of an evidence-based protocol, and mitigating the incidence of aspiration pneumonia, are the primary objectives of the DNP Project.

Kim Cooley, MSN, APRN, NNP-BC, CCNS, C-ONQS  
Doctor of Nursing Practice Student  
University of Alabama at Huntsville

A final thought to share with you—checking gastric pH is no longer considered Point of Care (POC) testing by CLIA!

## RECENT STUDY LED BY LADONNA NORTINGTON

[Evaluation of Methods Used to Verify Nasogastric Feeding Tube Placement in Hospitalized Infants and Children – A Follow-up Study](#). Northington L, Kemper C, Rempel G, Lyman B, Pauley R, Visscher D, Moore C, Guenter P; NOVEL Project, ASPEN Enteral Nutrition Committee. *J Pediatr Nurs*. 2021 Nov 8:S0882-5963(21)00315-8. doi: 10.1016/j.pedn.2021.10.018.

**Background:** Nasogastric (NG) feeding tubes are used to deliver nutrition, hydration, and medications to hospitalized infants and children but the ongoing use of non-evidence-based practice (EBP) methods to confirm NG tube (NGT) placement has been associated with adverse patient events.

**Methods:** A study was undertaken to ascertain if practice changes have occurred since findings from a previous study were published by the New Opportunities for Verification of Enteral tube Location (NOVEL) project. A survey was distributed to member organizations participating in the NOVEL project. Respondents were also asked if and when a change in practice occurred in the policy for NGT placement verification, if there was variation within the institutional units and if there were barriers to practice change.

**Findings:** Respondents were primarily nurses (205/245) from 166 institutions that provided care to combined adult/pediatric/neonatal (122/166) patients. Respondents indicated a radiograph (64%) or pH measurement (24%) were **best practice** but in actual practice 42% use pH measurement and 23% use a radiograph to verify NGT placement. There was variability within institutions, with the Neonatal Intensive Care Unit (NICU) most often using aspiration and direct eye visualization to verify placement and the other units within the institutions using EBP method(s).

**Discussion:** Comparing these results to previous work by the NOVEL project shows an increase toward the use of EBP method(s) to verify NGT placement verification.

**Application to Practice:** This study demonstrates variation within units at the same facility that is unsupported by the literature. Many centers still rely on non-EBP methods of NG placement confirmation despite cautions issued by many major healthcare organizations.

## PLANS FOR 2022

While I keep hoping I can retire the NOVEL project as our work is completed, that is not the case. In 2022, we plan to form a CNO workgroup with the help of Cheri Hunt to address specifically, the NICU population with the assistance of Leslie Parker.

Last summer I petitioned the ASPEN Board of Directors to start a NOVEL G-tube group and in 2022 the work will begin with that group.

As a result of our success and work, an Adult NOVEL group was formed in 2019. In the summer of 2021, that group published “Development of a competency model for placement and verification of nasogastric and nasoenteric feeding tubes for adult hospitalized patients.” Powers J, et al. (2021). *Nutr Clin Pract.* 2021 Jun;36(3):517-533. I encourage you to check this out as it deals with an important issue that is bubbling up—shouldn’t all staff who place NG tubes demonstrate competency?

At the ASPEN 2022 Nutrition Science & Practice Conference, I will be presenting information about NG tube placement verification around the concepts of de-implementation science. Unique to this presentation is the ‘science’ around the human factors that require ‘de-implementation’.

## A NOTE FROM OUR PARENT MEMBER, DEAHNA VISSCHER

In 2008 my son Grant Lars Visscher died because an NG tube was misplaced into his lungs. Since that tragic day I have been on a mission to make feeding tube placement verification safer for all patients. My journey led me to being a member of the patient safety team at the hospital he died at to becoming a member of the NOVEL project to presenting a safety issue with the Patient Safety Movement Foundation in hopes that they would champion my cause. In 2018 they filmed my son’s story so that all can see the importance of finding a solution for better verification of feeding tube placement. I know if we all work together, use evidence-based practices, and support technological advances, our future can have zero harm when it comes to NG tube placements. [Watch Grant’s story.](#)