New guidelines and technology needed for placement of feeding tubes in pediatric patients

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Universal guidelines and improvements in technology are needed to reduce injuries and deaths from improper placement of nasogastric feeding tubes in pediatric patients, according to a comprehensive review of published literature.

The review, conducted by the New Opportunities for Verification of Enteral Tube Location (NOVEL) Work Group Project of the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) found that while the bedside placement of a nasogastric feeding tube is a common procedure conducted by nurses, incorrect placement can have serious and potentially fatal consequences.

While an abdominal x-ray is the best way to ensure that a nasogastric feeding tube is correctly placed, most often a tube is placed at the bedside without radiographic assistance. The NOVEL Work Group Project concludes that universal best practices, including a standard approach to bedside verification of nasogastric feeding tube placement and changes in technology, can help to improve patient safety. The group's complete review titled "Nasogastric Tube Placement and Verification in Children: Review of the Current Literature," is co-published in the June issue of A.S.P.E.N.'s *Nutrition in Clinical Practice* and AACN's Critical Care Nurse journals.

"The challenges of insuring proper nasogastric feeding tube placement

led A.S.P.E.N. to launch our NOVEL Work Group Project to identify and promote best practices and spur technology development to reduce the risk to patients," said Beth Lyman, RN, MSN, CNSC, the chair of the A.S.P.E.N. NOVEL Work Group Project and the senior program coordinator for the Nutrition Support Team at Children's Mercy Hospital in Missouri. "We want to make sure that healthcare providers are not complacent about the risks associated with this procedure and have all the information they need to improve patient safety."

The outcome of a misplaced nasogastric feeding tube is typically life-altering and psychologically devastating for the patient, the patient's family, and healthcare professionals involved. In an accompanying commentary, a parent and a nurse recount the human cost of improper nasogastric feeding tube placement.

Deahna Visscher lost her 11-day-old son to an improperly placed nasogastric feeding tube. Grant was born with a heart defect that required surgery. Only a couple of days until his discharge, Grant died as the result of a nasogastric feeding tube being placed into his lung.

An unnamed nurse recounts her experience of placing a nasogastric feeding tube into a three-week-old girl. Even though she followed correct verification procedures, the tube was not placed correctly and the patient went into respiratory distress. The nurse was so distraught over her mistake that she seriously contemplated leaving the profession permanently.

"Stories like these show that we still have work to do with providers to reduce incidences of medical errors that lead to irrevocable consequences. We believe that our efforts are vital for the health of our most vulnerable patients," added Lyman.