

CORE SKILLS**FEEDING TUBES****INTRODUCTION**

Feeding tubes are commonly used to deliver enteral nutrition and medications to pediatric inpatients. Commonly used tubes are nasogastric (NG), nasojejunal (NJ), gastric (G), gastrojejunal (GJ), or jejunal (J). They may be used instead of or in addition to oral feedings. Feeding tubes may deliver nutrition and medications into the stomach or past the pylorus. While different types of feeding tubes may be placed by a variety of practitioners - nurses, radiologists, medical physicians, or surgeons - it is critical for pediatric hospitalists to understand the uses, limitations, and complications of various types of feeding tubes.

KNOWLEDGE

Pediatric hospitalists should be able to:

- Describe basic gastrointestinal anatomy and physiology, and relate this to commonly used feeding tubes.
- Compare and contrast the indications, uses, and limitations of various types of feeding tubes, including NG, NJ, G, GJ, and J tubes.
- Discuss the benefits of short term enteral feeding compared to intravenous fluid or parenteral nutrition use.
- Describe the correct procedure to replace each type of feeding tube and potential complications to be avoided.
- Review commonly encountered short and long term complications of feeding tubes, such as nasal irritation, granulation tissue, cellulitis, extrusion, obstruction, and others.
- Compare and contrast risks and benefits of percutaneous endoscopic gastrostomy (PEG) versus surgical gastrostomy.
- List the indications, risks, benefits, and alternatives for surgical gastrostomy with Nissen fundoplication.
- Discuss the factors to consider when determining the optimal type of feeding tube for children with neurologic impairment, such as risk of aspiration pneumonia, social aspects of maintaining oral stimulation, complications of Nissen fundoplication, and others.
- Compare and contrast the short and long term risks and benefits of gastrostomy with Nissen fundoplication versus placement of GJ tubes in patients with neurologic impairment.
- Discuss the roles of primary care provider, home care, subspecialists, and the family/caregiver in the home management of feeding tubes.

SKILLS

Pediatric hospitalists should be able to:

- Correctly institute short term NG feeding in appropriate patients.
- Appropriately prescribe NG or NJ feeding, including correct starting and increasing volumes and enteral formula choice.
- Correctly identify and refer appropriate patients for a G tube, GJ tube, or J tube placement.
- Effectively and clearly articulate the risks and benefits of combining Nissen Fundoplication with G tube placement vs. GJ tube placement to the family/caregiver.
- Accurately diagnose and treat dermatological problems associated with feeding tubes.
- Accurately diagnose and initiate treatment for common complications (obstruction, extrusion, leakage) associated with feeding tubes, in collaboration with appropriate subspecialists.
- Order appropriate radiological studies to assess feeding tube dysfunction.
- Demonstrate basic proficiency in interpretation of radiographic studies commonly performed to assess correct tube placement.
- Correctly identify the need for and efficiently access appropriate consultants.

ATTITUDES

Pediatric hospitalists should be able to:

- Work collaboratively with patients, family/caregiver, hospital staff, subspecialists and the primary care provider in making decisions regarding feeding tubes.
- Elicit and allay concerns of patients and the family/caregiver regarding the cosmetic appearance of tubes or impact on oral feeding.
- Educate patients and the family/caregiver about the use and care of feeding tubes prior to discharge home.

- Recognize the key role that home health care plays in the discharge planning and long term care of children with feeding tubes.

SYSTEMS ORGANIZATION AND IMPROVEMENT

In order to improve efficiency and quality within their organizations, pediatric hospitalists should:

- Lead, coordinate or participate in the development and implementation of cost-effective, safe, evidence-based care pathways to standardize the evaluation and management of feeding tubes for children.
- Collaborate with hospital administration and community partners to develop and sustain local systems that organize and consolidate the feeding tube supplies and services for children in an identifiable, easily accessible location.
- Lead, coordinate or participate in efforts to develop strategies to minimize institutional complication rates from feeding tube placement and use.
- Lead, coordinate or participate in multidisciplinary efforts to develop an education and hospital discharge protocol to ensure that patients with feeding tubes are safely transitioned to the outpatient setting.

Not for Distribution