

HEALTH & SAFETY: ASPIRATION PREVENTION

“Feeding Tubes and Feeding/Medication Administration Options”

BQIS/Outreach Fact Sheets provide a general overview on topics important to supporting an individual’s health and safety and to improving their quality of life. This document provides general information on the topic and is not intended to replace team assessment, decision making or medical advice. This is the ninth of ten Fact Sheets regarding Aspiration Prevention.

Objectives

Readers will gain an understanding of the more common types of feeding tubes available and feeding/medication administration options.

Definitions

Enteral Feeding: A means of providing nutrition via a tube inserted into the stomach or small intestine.

Lumen: The inner passageway of the feeding tube.

Nasogastric (NG) Tube: A tube that passes from the nose into the stomach.

Gastrostomy (G) Tube: A tube that is inserted into the stomach through the abdominal wall.

Jejunal (J) Tube: A tube that bypasses the stomach and empties directly into the jejunum (i.e., the middle section of the small intestines).

Gastrojejunal (G/J) Tube: Double lumened tube with 2 ports or openings. The G tube opening empties into the stomach and can be used for medication and the J tube opening which empties into the small intestine can be is used for feedings and water.

Orogastric Tube: A tube that passes through the mouth into the stomach.

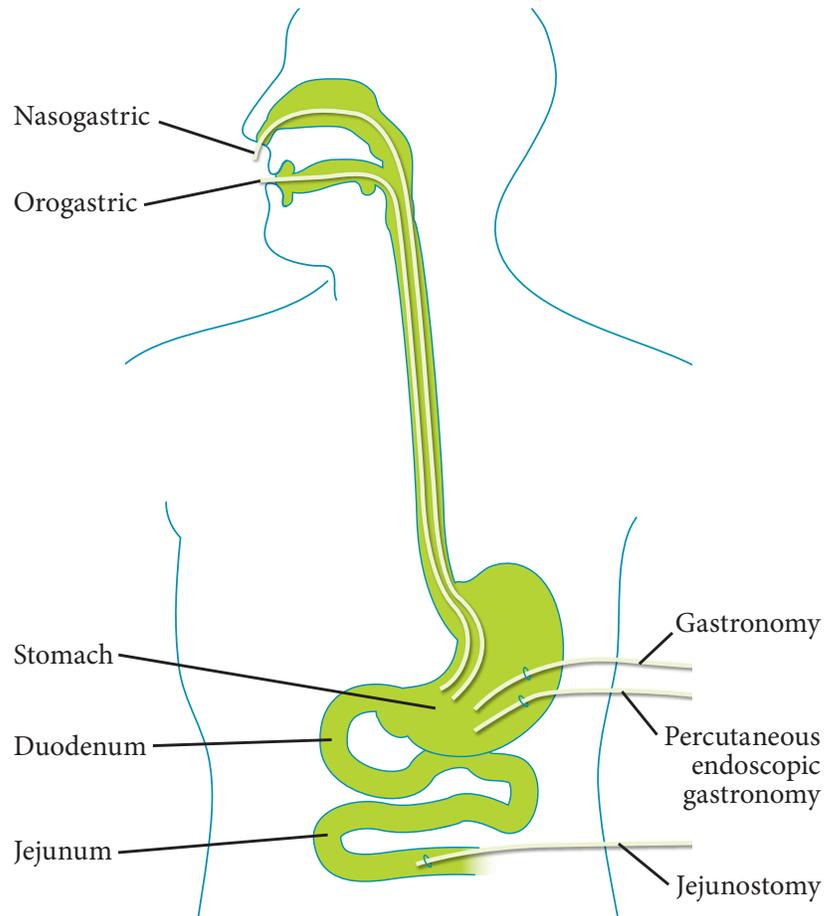
Percutaneous Endoscopic Gastric Tube (Peg Tube): A type of gastric (G) tube that is inserted into the stomach through the abdomen using an endoscope.

Bolus Feedings: A set amount of formula delivered four to eight times per day; each feeding lasting about 15 to 30 minutes.

Continuous Feedings: Feedings delivered over an extended period of time at a certain rate as ordered by the physician.

Facts

- Feeding tubes come in various types, lengths and widths.
- Feeding tubes are made of various materials.
- Some feeding tubes are changed periodically; others are permanent
- Feeding tubes are typically classified by the site of insertion and the location of the distal tip (end).
- The decision of which type of feeding tube to use is based on the expected duration of tube feeding as well as person-specific factors, wishes, and needs.
- The types of feeding tube commonly used are:
 - nasogastric (NG)- typically used for short term
 - orogastric-typically used for short term
 - gastrostomy (PEG or G-tube)- typically used for long term
 - jejunostomy (J-tube)- typically used for long term.
 - gastrojejunostomy tube (G-J tube)- typically used for long term
 - percutaneous endoscopic gastrostomy (PEG tube)-typically used for long term
- Tube feedings can be administered by bolus, continuous or continuous cyclic as ordered by the physician.
- Bolus Feedings:
 - Are a larger volume of formula delivered in a shorter period of time four to eight times per day.
 - May more closely replicate the normal eating pattern than continuous.
 - Allow freedom of movement for the person .
 - Carry a higher risk of aspiration especially if the person has delayed gastric emptying, gastroesophageal reflux disease (GERD), and/or is sensitive to volume.
 - Are not recommended for j tube feedings.



- Continuous Feeding:
 - Is delivered without interruption for an extended period of time each day.
 - May be better tolerated than bolus feeding by people who are sensitive to volume, have delayed stomach emptying, or have gastroesophageal reflux disease (GERD).
 - Is delivered by either gravity drip or infusion pump.
- Continuous Cyclic Feeding:
 - Is commonly used for 8 to 10 hours during the night for volume-sensitive persons so that smaller bolus feedings or oral feeding may be used during the day.
 - Is delivered by either gravity drip or infusion pump.
 - Can be administered at night, so it will not interfere with daytime activities.
- Medication Administration:
 - Medications must be crushed and mixed with water or in liquid form
 - Medications should be reviewed by the physician and pharmacist
 - ▶ To ensure can be delivered in a liquid form and/or crushed
 - ▶ To ensure compatible with formula
 - Consider the volume that will be introduced with each medication administration including water flushes before, between and after each medication, and whether the person can manage it safely
 - Consider the person's activity and mobility needs, including use of adaptive equipment, as it is important that movement or pressure on the abdomen be minimized immediately after feeding or medication administration

Recommended Actions and Prevention Strategies

Discuss the person's health history and physical needs with the physician and team in order to determine the safest and most appropriate type of feeding tube and administration methods for feedings, water and medication.

Learning Assessment

Questions that can be used to verify a person's competency in the material contained in this Fact Sheet:

1. True or False: Nasogastric tube feeding is commonly used when there is high probability that long term enteral nutrition will be required.
2. True or False: Gastrostomy tube feedings pass through and can irritate nasal passages and esophagus.
3. True or False: The jejunal tube bypasses the stomach thus decreasing the risk of gastric reflux.
4. True or False: Bolus feedings are more easily tolerated by people with a jejunal tube.

References

Development of Evidence-Based Guidelines and Critical Nurses knowledge of Enteral Feeding
Critical Care Nurse Vol 27, No.4 August 2007

Medication Administration Through Enteral Feeding Tubes, Nancy Toedter Williams, American Journal of Health-System Pharmacy. 2008;65(24):2347-2357 2008

Related Resources

Aspiration Prevention Series Fact Sheets: “Food Texture and Fluid Consistency Modification”, “Management of Constipation”, “Management of Oral Health”, “Dysphagia”, “Modified Barium Swallow Study/ Videofluoroscopy”, “Management of Gastroesophageal Reflux Disease (GERD)”, “Positioning”, “Management of Residuals”, and “Choice Considerations Relevant to the Use of Enteral Nutrition”

“General Description of Diet Textures” Handout

Learning Assessment Answers

1. False
2. False
3. True
4. False

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