

FEEDING TUBE PLACEMENT IN SPECIFIC PATIENT PROFILES: GASTROPARESIS



Gastroparesis is a chronic motility disorder of delayed gastric emptying, in the absence of mechanical obstruction.¹



Causes

50% idiopathic, 38% diabetic gastroparesis, medication-induced, postsurgical, viral, neurological and autoimmune mechanisms.¹

Occurs in 10%-40% of patients after major gastrointestinal surgery.²



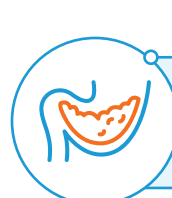
Consequences

Common symptoms include nausea, vomiting, early satiety, postprandial fullness, bloating, and abdominal discomfort, leading to inadequate food intake and high risk of malnutrition.¹



Did you know?

The signs and symptoms of gastroparesis can affect the quality of life of the patient and lead to an increased use of healthcare resources. Patients with gastroparesis may also report a sense of loss and social isolation when their ability to eat along with others is altered.¹



Need for enteral tube feeding in patients with gastroparesis

The high risk of malnutrition in patients suffering from gastroparesis poses a negative effect on their clinical outcomes.²

- Estimated 30% of patients will need enteral feeding at some point in their disease.³
- Indications for enteral feeding –
 - Loss of 5%-10% body weight over 3-6 months.⁴
 - Repeated admissions for hypovolemia.⁴
 - Electrolyte abnormalities due to nausea and vomiting.⁴

Enteral feeding can provide nutrition, hydration, liquid medication and possible palliative decompression while alternate therapies for gastroparesis are explored.⁴

In patients unable to achieve at least 50% of their daily required caloric intake for several days, a nasoenteral* feeding tube can be placed and used to deliver enteral nutrition.²



Challenges posed by conventional feeding tube placement techniques

Nasoenteral* feeding tube placement can be challenging in patients with gastroparesis.²

Blind placement

- Usually unsuccessful.²
- May lead to complications (aspiration and pneumonia) due to inadvertent airway placement.²

Endoscopic placement (followed by abdominal radiography for tube placement confirmation)

- Requires preprocedural fasting and patient transport between the clinical ward, endoscopy and radiology departments.²



Did you know?

Blind insertion, though the most common technique for nasoenteral** intubation, results in a malposition in 0.5%-16% of the cases. Tracheal, pulmonary, or pleural malpositioning may occur in 0.3%-15% of the cases, leading to pulmonary or pleural formula infusion, pneumothorax or pulmonary abscess.⁵

Endoscopic placement may result in a chance of accidental tube dislodgement as the scope is being withdrawn.⁶



Benefits of using the electromagnetic (EM)-guided placement technique for post pyloric feeding tube placement

In an observational study, it was found that the total time between physician order for small bowel feeding tube placement and feeding initiation was 66% lower in EM-guided group vs. the blind placement group.⁷



Patient comfort and safety

Suggested to result in less patient discomfort as bedside placement is possible.^{2,6}
Avoids malposition (lung placement) and complications.⁶



Time-saving

Increased efficiency and decreased time to tube placement and feeding.⁶



Cost-saving

Results in a 50% decrease in mean cost for X-rays by reducing by half the median number of X-rays required to confirm correct tube placement.⁷



Our Solution

Feed patients faster, so they recover faster.⁸

An electromagnetic stylet provides real-time location information on tube tip placement within a patient's anatomy.⁸

On-screen visualization provides immediate feedback on tube placement.⁸



Efficient placement⁸

- Visualization at bedside
- Direct tubes to desired feeding placement with real-time feedback
- Immediately identify misplaced tubes
- Minimize complications, such as lung placements



Timely feeding⁸

- Can significantly reduce time-to-feed
- More efficient than blind placements with X-ray confirmation



Reduced burden⁸

- Address feeding needs more quickly
- Can improve patient outcomes
- Save time and resources

Allows clinicians to confidently place tubes in an optimal feeding position, quickly confirm location, and reduce the time to nutrition delivery.⁸

Institution protocols must always supersede the use of CORTRAK*2. Clinical judgment must always take precedence.*

*as per Gerritsen, 2016, post-pyloric enteral nutrition was provided using a nasoenteral feeding tube.
**as per Blumstein, 2014, gastric or jejunal nutrition can be provided using a nasoenteral feeding tube.⁵

References:
1. Limketkai BN, LeBrett W, Lin L, Shah ND. Nutritional approaches for gastroparesis. *Lancet Gastroenterol Hepatol.* 2020; 5(11):1017-26. 2. Gerritsen A, De Rooij T, Dijkgraaf MG, et al. Electromagnetic-guided bedside placement of nasoenteral feeding tubes by nurses is non-inferior to endoscopic placement by gastroenterologists: a multicenter randomized controlled trial. *Am J Gastroenterol.* 2016; 111(8):1123-32. 3. Srijbos D, Keszhelyi D, Smeets FGM, et al. Therapeutic strategies in gastroparesis: Results of stepwise approach with diet and prokinetics, Gastric Rest, and PEG-J: A retrospective analysis. *Neurogastroenterol Motil.* 2019; 31(6):e13588. 4. Simons M, Bulat R. Enteric tube placement for gastroparesis: Gastrostomy, gastrojejunostomy and jejunostomy. *In: Gastroparesis 2021* (pp. 397-411). Academic Press. 5. Blumenstein I, Shastri YM, Stein J, Galanter J. Enteral tube placement: techniques, problems and solutions. *World J Gastroenterol.* 2014; 20(26):8505-24. 6. Powers J, Brown B, Lyman B, Escuro AA, et al. Development of a Competency Model for Placement and Verification of Nasogastric and Nasoenteric Feeding Tubes for Adult Hospitalized Patients. *Nutr Clin Pract.* 2021; 36(3):517-533. 7. Gray R, Tynan C, Reed L, et al. Bedside electromagnetic-guided feeding tube placement: an improvement over traditional placement technique? *Nutr Clin Pract.* 2007; 22(4):436-44. 8. Avanos CORTRAK* 2 ANZ brochure. 9. CORTRAK 2 Quick Start Guide_15M1360.