

TUBE FEEDING INTOLERANCE TROUBLESHOOTING GUIDE

NAUSEA/VOMITING/REFLUX

CHECK FOR

POSSIBLE SOLUTIONS

Anxiety	Reassure the patient, provide additional instructions and psychological help based on their needs
Medication Side Effects³	Evaluate medications, consult pharmacist ³
Gastrointestinal Obstruction³	Discontinue tube feeding until medical evaluation
Tube Position⁶	Consider post-pyloric feeding below the Treitz ligament ² Note: attention to oral hygiene is important with EN as alteration of microbiota in the oral cavity has been associated with aspiration pneumonia ¹⁰
Formula Odor³	Consider closed system feedings; consider antiemetic agent if appropriate ³
Positioning of Patient^{2,3}	Elevate the headboard to 30-45 degrees during continuous feeding unless contraindicated; for intermittent feeding, elevate the headboard to the upright position during feeding and at least 30 minutes after.
Formula Characteristics	Consider a whey protein formula to facilitate gastric emptying ⁷⁻⁹ ; Consider formulas with real food ingredients ¹⁰
Delayed Gastric Emptying³	Assess abdomen, review medical history for any underlying motility disorders, consider prokinetic medications, monitor glucose control if relevant ³ ; consider a whey based formula ⁷⁻⁹
Tube Position	Check for proper placement (e.g., nasogastric tube has not migrated into small bowel)
Rapid Infusion Rate³	Review feeding regime, reduce rate/volume or adjust feeding schedule as needed, use room temperature formula ³
Fecal Impaction/Constipation³	Assess abdomen; disimpact as needed using enemas; monitor stool frequency and consistency. Unless contraindicated, consider a fiber-containing formula or fiber modular.

CONSTIPATION

CHECK FOR

POSSIBLE SOLUTIONS

Fecal Impaction/Constipation³	Assess abdomen; disimpact as needed using enemas; monitor stool frequency and consistency
Formula Characteristics, Dehydration³	Evaluate fiber and fluid intake (concentrated formulas or those containing fiber may increase water intake needs). ³ Consider use of blenderized formulas ¹⁰
Inactivity³	If possible, encourage activity/ambulation ³

ABDOMINAL BLOATING OR DISTENSION

CHECK FOR

POSSIBLE SOLUTIONS

Positioning of Patient^{2,3}	Elevate the head of bed to 30-45 degrees during continuous feeding unless contraindicated; for intermittent feeding, elevate the head of bed during feeding and at least 30 minutes post-feeding
Formula Characteristics	Consider a whey protein formula to facilitate gastric emptying ⁷⁻⁹ ; consider formulas with real food ingredients ¹⁰
Delayed Gastric Emptying³	Assess abdomen, review the medical history for any underlying motility disorders, consider prokinetic medications, monitor glucose if relevant ³ ; consider a whey based formula ⁷⁻⁹
Tube Position	Check for proper placement (e.g., nasogastric tube has not migrated into small bowel)
Rapid Infusion Rate³	Review feeding regime, reduce rate/volume or adjust feeding schedule as needed, use room temperature formula ³
Fecal Impaction/Constipation³	Assess abdomen; disimpact as needed using enemas or osmotic laxatives such as macrogol; monitor stool frequency and consistency; unless contraindicated consider a fiber-containing formula or fiber modular

DIARRHEA

CHECK FOR

POSSIBLE SOLUTIONS

Tube Position	Check for proper placement (e.g., nasogastric tube has not migrated into small bowel)
Medication Side Effects³	Evaluate medications (e.g., broad spectrum antibiotics, hyperosmolar or sorbitol containing meds, prokinetics, laxatives) ³ ; consult pharmacist
Clostridium Difficile Infection^{2,3}	Rule out infectious etiology and treat if necessary ²
Rapid Infusion Rate³	Review feeding regime, reduce rate/volume or adjust feeding schedule as needed, use room temperature formula ³
Formula Characteristics	Consider fiber-containing formula unless contraindicated and assess fluid needs ³ , consider peptide-based formula ^{2,11} ; consider formulas with real food ingredients ¹⁰
Bacterial Contamination of Feeding Solution^{3,6}	Review enteral feeding and equipment handling procedures – using aseptic technique to reduce the risk of touch contamination; follow hang time guidelines; consider closed feeding system ^{3,6}
Malabsorption, Maldigestion, Steatorrhea³	Perform medical exams and testing if needed, review fat content of formula, consider peptide-based, MCT-containing formulas ¹¹
Underlying GI Disorders, Gastroenteritis or Flu	Assess and treat underlying illnesses; focus on fluid needs; consider peptide-based formulas with MCT ^{3,11}
Fecal Impaction/Constipation³	Assess abdomen; disimpact as needed using enemas; monitor stool frequency and consistency; unless contraindicated consider a fiber-containing formula or fiber modular

*The information provided is only intended as a guideline. Clinical judgment, facility guidelines and the individual needs of the patient must always be considered. Consult other members of the healthcare team as needed

References: 1. Malone A et al. in Mueller C (Ed). Core Curr ASPEN 2012. 2. Bernard AC, et al. NCP 2004; 19: 481-486. 3. Boullata J, Carney LN, Guenter P (Eds). ASPEN EN Handbook, 2010. 4. Tappenden K et al. JPEN 2013; 37(4): 482-497. 5. DeLegge M. Clin Nutr Highlights 2006, 2(2):2-7. 6. Bankhead R et al. JPEN 2009; 33(2): 122-167. 7. Fried MD et al. J Pediatr 1992;120:569-72. 8. Khoshoo Vet al. Eur J Clin Nutr. 2002, 56:1-3. 9. Dangin M. et al. J of Nutr 2002; S3228-3233. 10. Langmore SE et al Dysphagia, 2002, 17: 298-307. 11. McClave SA et al. JPEN 2009; 33(3): 277-316. 12. Btaiche IF et al. NCP 2010, 25(1):32-49. 10. Henrikson A, et al. J Parenter Enteral Nutr. 2022;46:S74-S226. DOI: 10.1002/jpen.2345. 11. Minor G, et al. Global Pediatric Health 3: 1-6. 2016.