

UAB Enteral Nutrition and Gastric Residual Guideline

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Background:

Enteral nutrition (EN) provides beneficial effects including decreased infection over parenteral nutrition. Holding tube feeds results in decreased nutrient delivery, malnutrition and impaired wound healing. Less than half of critically ill patients ever reach their target goal energy intake during their ICU stay.¹ Monitoring parameters focus on changes in clinical status that will likely affect tolerance of the enteral prescription. ASPEN guidelines no longer support the routine use of gastric residual volumes (GRV) to monitor ICU patients receiving EN. GRV does not correlate with incidences of pneumonia, regurgitation or aspiration.² Studies have shown that eliminating the practice of using GRVs improves delivery of EN without jeopardizing patient safety.³

I. Clinical Practice Guideline

- Avoid routine use of gastric residual volumes (GRV) to monitor ICU patients receiving enteral nutrition

II. Inclusion Criteria

- All patients initiated on EN
- Neuromuscular blockade and spinal cord injuries are not contraindications to initiation of EN

III. Monitoring for EN Tolerance

- Assess tolerance to EN using combination of parameters appropriate to individual patient
- Evaluate patient subjective complaints, and objective findings of GI function
- Physical assessment should be completed daily during rounds, and documented by bedside nurse while tube feeding is infusing, including:
 - Abdominal exam looking for abdominal pain, tenderness and/or distention
 - Signs of nausea and/or vomiting
 - Stool assessment for change in bowel patterns (diarrhea or constipation)
 - If diarrhea occurs, etiology should be evaluated; attempt to distinguish infectious diarrhea from osmotic diarrhea
 - If NGT is to suction: drainage color, amount, consistency, unnecessary tension/pulling on tubing, tube patency/position
 - **If a patient has any signs of intolerance or issues during assessment, stop the tube feeding and contact the provider.**
- Evaluate clinical risk factors for aspiration
 - Elevate HOB to at least 30 degrees unless contraindicated

- If high risk, utilize post-pyloric enteral access device
- If GRV being utilized, automatic cessation of EN should not occur for GRV <500 mL in the absence of other signs of intolerance

References:

1. Mueller C, et al. The ASPEN Adult Nutrition Support Core Curriculum. Silver Spring MD; ASPEN, 2012
2. Bankhead R, et al. ASPEN Enteral Nutrition Practice Recommendations. *JPEN J Parenter Enteral Nutr.* 2009 ; 33 :122.
3. McClave SA, Taylor BE, Martindale RG, et al. Guidelines for the provision and assessment of nutrition support therapy in the adult critically ill patient: Society of Critical Care Medicine (SCCM) and American Society for Parenteral and Enteral Nutrition (ASPEN). *JPEN J Parenter Enteral Nutr.* 2016;40:159-211.