Enteral Nutrition Care Pathway for Critically-Ill Adult Patients

This ASPEN pathway provides steps and resources for managing critically-ill adult patients requiring enteral nutrition (EN), starting at needs assessment through transition out of the ICU.

**Determine EN Appropriateness and Beneficial Effects**
- Determine if GI tract is functional, bowel sounds not necessary
- Assess that patient is unable to take sufficient oral nutrition
- EN provides beneficial effects including decreased infection over PN

**Resources:** ASPEN Adult Critical Care Clinical Guidelines

**Complete Nutrition Assessment**
- Assess for presence of malnutrition
- Determine nutrient and therapy goals including macro- and micronutrient and fluid needs
- Assess organ function and if it impacts nutrient dosing

**Resources:** Improve Patient Outcomes: ASPEN's Step-by-Step Guide to Addressing Malnutrition. 2015. ASPEN Adult Critical Care Clinical Guidelines

**Assess and Place Enteral Feeding Access Device**
- Assess for current enteral access and its appropriateness for current clinical condition
- Determine aspiration risk and need for small bowel versus gastric feeding
- If needed, place small-bore naso-enteric feeding tube with desired gastric or small bowel tip location
- Confirm proper tube placement prior to feeding

**Resources:** ASPEN Adult Critical Care Clinical Guidelines ASPEN Safe Practices for Enteral Nutrition

**Select Appropriate EN Formula**
Consider the following question for formula selection: Does the patient have specific nutrient needs due to their condition?
- High caloric requirements and/or fluid restriction - Select a more fluid restricted, energy dense formula
- Surgical or trauma patients - Consider use an immunomodulating formula
- Persistent diarrhea - Consider use of a mixed fiber-containing formula
- Suspected of malabsorption or lack of response to fiber - Consider a small-peptide formula
- Renal impairment - Consider use of an electrolyte altered formula
- If none of the above, consider use of a standard formula

**Prescribe EN Correctly Using Standardized Process**
- Use Computerized Provider Order Entry (CPOE) if available
- Use computerized Clinical Decision Support (CDS) tools including algorithms and alerts
- Prescribe formula, administration rate or method, and daily volume
- Use volume based feeding protocols
- Prescribe continuous or intermittent delivery methods as appropriate

**Required EN Order Elements**
- Patient information
- Formula name (generic and /or trade name)
- Delivery site (route) and enteral access device
- Administration method and rate
- Nurse-driven EN protocols for volume-based feeding
- Communicate order to department that supplies EN formulas

**Procure, Prepare, and Label the Formula**
- Formulas are supplied as ready-to-hang, closed-system, large volume bags or containers; smaller volume cans, bags, or cartons; and powdered formula
- Understand how the formula is ordered, prepared, and delivered to the bedside
- Formulas labels should reflect required order elements and include expiration dates

**Resources:**
- ASPEN Adult Critical Care Clinical Guidelines
- ASPEN Safe Practices for Enteral Nutrition

**Ready-to-Hang, Closed-System, Large Volume Bags or Containers**
- Hang time 24-48 hours
- Reduced infection risk
- Cannot add modular components
- Reduced nursing time

**Resources:** ASPEN Safe Practices for Enteral Nutrition

**Smaller Volume Liquid Cans, Bags, or Cartons: Open System**
- Hang time 8 hours
- Increased infection risk
- May add modular components
- Increased nursing time

**Resources:** ASPEN Safe Practices for Enteral Nutrition

**Powdered Formulas Requiring Preparation**
- Hang time 4 hours
- Increased infection risk
- Needs to be prepared in special formula room
- Requires sterile water
- Increased nursing time

**Resources:** ASPEN Safe Practices for Enteral Nutrition

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Administer EN Safely and Appropriately

- Perform hand hygiene and wear gloves
- Confirm proper tube placement
- Confirm correct formula and verify patient’s name on label; match all components listed on the label against the EN order including route of administration, infusion rate, and expiration date and time
- Verify patient identification
- Maintain patient head of bed (HOB) up at 45 degrees
- Initiate EN infusion
- Advance as tolerated using protocols
- Deliver medications safely

Monitor and Reevaluate Patient

- Initiate monitoring protocol
- Evaluate efficacy and goals of therapy
- Alter formula, rate, or volume as needed
- Document tolerance and advancement to goal feedings
- Do not use gastric residual volumes as part of routine care to monitor ICU patients receiving EN
- Reassess nutritional status periodically

Initiate Discharge Planning for Transition of Care

- Identify new care setting
- Identify prescriber and new care team
- Assess enteral access and if long term access is needed, place gastrostomy, jejunostomy or combined G/J as needed
- Determine if patient continues to need current EN prescription
- Communicate EN order, labs, frequency, and monitoring parameters to new care team

Enteral Nutrition Quality Improvement Program

- Develop error reporting program within institution QI/QA department
- Implement infection control for EN handling
- Monitor use of appropriate EN in ICU population
- Monitor tolerance to EN and use of supplemental PN in ICU population
- Measure percent of nutrient requirements received by patients

Resources:
- ASPEN Adult Critical Care Clinical Guidelines
- ASPEN Safe Practices for Enteral Nutrition

References:


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