

Huron Perth Healthcare Alliance		
1. Clinical Policies and Procedures	Original Issue Date:	November 01, 1992
Enteral Feeding - Management of - Adult	Review/Effective Date:	June 19, 2020
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## Scope

This policy applies to all nurses who have received the appropriate theoretical preparation to care for adult patients requiring enteral feeding.

## Policy

This policy describes the care and maintenance procedures for patients requiring enteral nutrition and medication administration as ordered by the physician (MD) or Registered Dietitian (RD). The policy aims to ensure that the safe practice of administration of enteral feeds is maintained.

## Purpose

The purpose of this policy is to provide best practice guidelines for nurses on the management of patients receiving enteral feeding in order to minimize complications associated with enteral tube feeding. It is expected that staff shall adhere to the principles outlined in this policy.

## Indications

General indications for enteral feeding include:

- Patients who cannot eat because of surgery, injury, or a disease process, including those who
  - have an alteration in their level of consciousness
  - are mechanically ventilated
  - are recovering from oral, head, and neck surgeries or
- Patients with a nutrition deficit resulting from reduced food ingestion or malabsorption, including those who are physically incapable of eating, such as patients with head injury, confusion, or GI system disorders (e.g., Crohn disease).
- Patients with impaired swallowing or gag reflex, such as those who have had a stroke.

## Definitions:

**Closed Enteral Feeding Containers (ready to hang):** is a pre-filled, commercially sterile, non-air dependent container of enteral feed that may hang up to 48 hours (or as per RD) once spiked with an appropriate administration set.

**ENFit:** Products used for enteral administration must have a different connection than those used for parenteral (IV) administration to reduce the risk for accidental parenteral administration of enteral products. ENFit enteral products and accessories are purple in color and do not allow for connectivity with any other connector for any other clinical use.

Until a complete transition to ENFit occurs you may still connect a new ENFit product to an old access via the white connector (until the connector will be phased out).

**Note:** 60mL non- ENFit syringes should only be used if required for medication/flush administration in non- ENFit enteral tubes (i.e.; Levins) or if the ENFit connector is no longer available.

**Kangaroo ePump ENPlus Spike with Flush Bag:** The spike set is required for delivery of enteral feeds and automated scheduled water flush via the Kangaroo ePump Enteral Feeding pump.

### Competency

- A RN or RPN having appropriate theoretical preparation and understanding of the underlying condition for which enteral nutrition is proposed and having demonstrated the appropriate knowledge, skills and judgement may perform this treatment on the order of a Physician or Registered Dietitian. Additional educational resources around enteral feeding are available in Elsevier.

### Considerations

**Note:** Blue dye is NOT to be added to enteral feeds

### Procedure

Procedure	Rationale
<b>Supplies to Initiate Enteral Nutrition:</b> <ul style="list-style-type: none"> <li>• Closed Enteral Feed container as ordered</li> <li>• Kangaroo ePump Enteral Feeding Pump</li> <li>• Kangaroo ePump ENPlus Spike with Flush Bag</li> <li>• IV Pole</li> <li>• 60 mL Enteral Syringe for use with ENFit Connection System</li> <li>• 500 mL bottle of Sterile Water for flushing</li> <li>• ENFit PEG/G-J Tube adapter if required.</li> </ul> <p><b>Note:</b> 60 ml non- ENFit Syringes should only be used if required for medication/flush administration in non- ENFit compatible enteral tubes or if the ENFit connector is no longer available.</p> <p>(i.e.; catheter tip syringes may be used with Levin tubes)</p>	<b>ENPlus Spike with Flush Bag</b>  <b>Enfit Syringes</b>
<b>1. Verify Orders</b>	
The MD completes the Adult Enteral Feeding Order Set.	To optimize the delivery of enteral nutrition.
The RD consult is initiated when an Enteral Feeding is ordered, as per the HPHA Adult Enteral Feeding Order Set (0DRME029M2).	RD will initiate, monitor and implement changes to the enteral nutrition care plan.
<b>2. Verify Route</b>	
The MD will determine route of Enteral Feeding via HPHA Adult Enteral Feeding Order Set (0DRME029M2).	
For the step-by-step procedure on inserting enteral feeding tubes, refer to the HPHA Policy <i>Enteral Feeding – Insertion of Gastric and Small Bowel Feeding Tubes-Adult</i> .	
Only Small Bore Feeding Tubes, PEG, G-Tube or J-Tubes will be used for enteral feed administration.	
NOTE: Large Bore gastric tubes (i.e.; Levins) are indicated for gastric decompression and medication administration. These tubes are not meant for enteral feeding provision, however may be required for short periods of time to ensure tolerance with feeding into the gut.	

<p>If a nasally or orally inserted enteral feeding tube is used, the nurse is responsible for monitoring placement of the tube by checking the cm marking from the original placement daily for continuous feeds (and prior to each intermittent feed) and must document the information in Meditech.</p>	To ensure tube is not accidentally dislodged.
<p>For enteral feeding tubes inserted nasally, ensure the tube is anchored and check the nostrils every 8 hours for signs of excessive pressure such as erythema, skin breakdown or distorted shape.</p>	To prevent sore nostrils as significant mucosal injury can be induced by enteral feeding tubes.
<p>Clean and moisten nostrils with water soluble lubricating jelly every 4-8 hours.</p>	
<p><b>3. Ensure Proper Patient Positioning</b></p>	
<p>Ensure that patient's head of bed is elevated to 45 degrees (minimum of 30 degrees), unless contraindicated during continuous/intermittent feedings.</p>	To reduce the risk of aspiration, regurgitation, pneumonia and Ventilator Associated Pneumonia (VAP).
<p><b>4. Confirm Tube Placement</b></p>	
<p>Placement of nasal/oral enteral tubes in the adult patient must be confirmed by radiography prior to initiating enteral feeding, flushing, or administration of medication, as per Adult Enteral Feed Order Set.</p>	To ensure appropriate placement of enteral feeding tube.
<p>Ensure MD or Radiologist has confirmed accurate placement prior to initiating the enteral feeding.</p>	
<p>Document confirmation of placement by physician in Meditech.</p>	
<p><b>5. Setting up the Enteral Nutrition &amp; Pump</b></p>	
<p>Closed Enteral Feed containers are stored at room temperature and once spiked, can hang up to 48 hours(or as specified by RD).</p>	
<p>Record the date and time the Closed Enteral Feed container was hung on the yellow card (attached to the patient's Closed Enteral Feed container).</p>	
<p>Additional containers are located on the Critical Care Unit, Telemetry &amp; Integrated Stroke Unit, Medicine Unit and Surgical Unit (in the cupboard labeled "Enteral Feeds").</p>	
<p>Enteral Spike Sets are changed with <b>every</b> new Closed Enteral Feed Container up to a maximum 48 of hours (or as specified by RD). Record date and time Enteral Spike Set tubing was hung, using the label located in the Enteral Spike Set packaging.</p>	
<p>All associated feeding supplies (i.e.; all types of syringes used for enteral feeding) should be changed at least every 24 hours.</p>	
<p>The Kangaroo ePump requires a distance of 45 cm (18 inches) between the bottom of the Closed Enteral Feed Container to the top of the pump.</p>	In order to achieve proper accuracy of enteral flow rate.
<p>When connecting the feeding tube to the enteral spike set, do not overtighten.</p>	Any potential build-up in the moat can cause difficulty when disconnecting the feeding tube once the formula dries.
<p>Position the feeding tube facing down upon connection to help prevent formula build up in the moat.</p>	
<p>For the step-by-step process on priming Feed &amp; Flush sets and pump use, refer to the Kangaroo ePump Enteral Feeding Pump resources listed below.</p>	Allows for automated flushing for tube patency and delivery of hydration when programed through the Kangaroo ePump Enteral Feeding pump.
<p><b>6. Administering Prescribed Enteral Tube Flushes</b></p>	

<ul style="list-style-type: none"> <li>· Fill Flush Bag with appropriate amount of sterile water.</li> <li>· Program the Flush Volume and Flush Interval into the Kangaroo ePump as ordered by the MD or RD</li> <li>· If patient is on cyclic enteral feeds, the RD will order manual sterile water flushes, using 60mL Enteral Syringe, as appropriate</li> <li>· MD or RD may indicate to flush with Normal Saline, however <b>no other products such as cranberry juice or cola may be used to flush an enteral feeding tube.</b></li> </ul>	<p>To keep tube patent and prevent clogging.</p> <p>Sterile water is recommended for use in flushing of enteral feeding tubes to decrease microbial contamination.</p>
Document amount of scheduled Water Flush Volume administered via ePump (and/or manual water flush), in Meditech under <i>Feed, Enteral, Medication Flush</i> .	Ensures an accurate fluid balance.
<b>7. Medication Administration</b>	
Do not add medication directly into a Closed Enteral Feed Container.	
Medications administered through an enteral feeding tube must be administered one at a time; do not mix medications.	Due to risks for physical and chemical incompatibilities, tube obstruction and altered therapeutic drug responses.
Using a 60mL Enteral Syringe, flush enteral feeding tube with at least 15mL STERILE water prior to medication administration, between each medication and after all medications are administered.	Only sterile water is to be used for administering medications via enteral feeding, to reduce risk of microbial contamination.
Recall that 60ml non- ENFit Syringes should only be used if absolutely required for non- ENFit enteral tubes, low profile tubes, Levins etc.	
Document amount of sterile water flush administered before, during and after medication administration, in Meditech under <i>Feed, Enteral, Medication Flush</i> .	Ensuring an accurate fluid balance.
<b>8. Unclogging Enteral Feeding Tube</b>	
Using a 60 mL Enteral Syringe inject 60 mL warm sterile water through tube. If clog does not dislodge, gently pull back on syringe. This should be attempted 3-4 times before using the Pharmacological Method of Declogging.	
<b>Note:</b> If there is too much resistance, STOP, or you may risk rupturing the tube.	
Appropriate enteral tube unclogging agents will appear in the PRN section of the e-MAR when the <b>Adult Enteral Order Set</b> has been initiated by the MD.	
Sodium bicarbonate and pancrelipase for unclogging can be found through the virtual kit option in the Omnicell Medication Cabinets (ADCs). Search "UNCLOG" to obtain one tablet of each sodium bicarb and pancrelipase.	
<b><u>Pharmacological Method of Unclogging:</u></b>	
<ul style="list-style-type: none"> <li>i. Crush 325mg tablet of Sodium Bicarbonate.</li> <li>ii. Add the contents of 1 capsule or tablet of pancrelipase compound.</li> <li>iii. Mix in 5-15mL warm sterile water.</li> <li>iv. Inject into the enteral feeding tube using a 60mL ENFit enteral syringe.</li> <li>v. Clamp tube and wait for 5-30 minutes (even if unable to inject, connect Enteral Syringe to enteral feeding tube and leave undisturbed for minimum 30 minutes).</li> <li>vi. Irrigate with 50mL sterile water.</li> <li>vii. Repeat twice more if necessary.</li> </ul>	<p>Do not use cola or any other liquids to declog an enteral feeding tube.</p> <p>Do not use a syringe less than 60mL in size as pressure is increased and tube rupture may occur.</p>
If the tube does not unclog immediately and the tube feed is put on hold, <b>leave the unclogging medication in the tube</b> (or connect the filled syringe to the	Studies have shown this method of pharmacologically

<p>enteral feeding tube) and clog may dislodge over several hours.</p> <p>If enteral tube feed is held for several hours, contact the MD as required to clarify medication and IV orders as appropriate.</p> <p>If the feeding tube remains clogged, notify the MD.</p>	<p>declogging of feeding tubes to be best practice.</p>
<b>9. Constipation Prevention</b>	
<p>Constipation is defined as no bowel movement for 3 or more days.</p> <p>Goal: to have one soft bowel movement per 24 hours.</p> <p>Assess need for disimpaction every 3 days if patient has not had a bowel movement. Obtain MD order for disimpaction.</p>	<p>Constipation can lead to fecal incontinence, UTI, rectal bleeding and even rectal prolapse (Clinical Knowledge Summaries, 2008).</p>
<p>Notify MD immediately of vomiting or distended, tympanic or painful abdomen.</p>	<p>May indicate possible bowel obstruction or ischemic bowel.</p>
<p>Do not give suppository or enema as ordered to neutropenic patients with absolute neutrophils less than 1 or if platelets are less than 40 or if patient has had recent lower bowel surgery.</p>	<p>Increased possibility of infection.</p> <p>Increased potential for bleeding.</p>
<b>10. Management Of Diarrhea</b>	
<p>Diarrhea is defined as stool output greater than 3-5 liquid BM or greater than 750mL daily.</p> <p>Assess patient for risk of stool impaction.</p> <p>Liquid medications may need to be changed to tablet or parenteral alternative (liquid forms of medications tend to be high in osmolality).</p> <p>If abdominal assessment reveals distended, tympanic or painful abdomen, notify MD immediately.</p>	<p>Liquid forms of medications tend to be high in osmolality which can increase risk of diarrhea.</p>
<b>11. Management Of Nausea And Vomiting</b>	
<p>Avoid giving enteral feeds too quickly or in too large a volume. Seek advice of the RD with regards to rate of feed or frequency of bolus feeds.</p> <p>Ensure the patient is not lying flat; keep head elevated.</p> <p>Notify MD with concerns related to nausea and/or vomiting and discuss advancement of Gastric Feeding Tube to a small bowel feeding tube as appropriate.</p> <p>If gastric feeding tube is to remain, discuss motility agent with MD.</p>	<p>To rule out other causes of diarrhea and assess tolerance of feed.</p> <p>To decrease risk of aspiration and improve tolerance, advancement to a SBFT may be warranted.</p>

#### Related Documents and Resources

- Learn how to program the Kangaroo™ ePump Enteral Feeding Pump for continuous feeding when using a feed/flush feeding set ;
- [https://www.youtube.com/watch?v=ez\\_yXFrAYMY](https://www.youtube.com/watch?v=ez_yXFrAYMY)
- **Kangaroo ePump Enteral Spike Set with Flush Bag Infographic**
- Kangaroo™ Pump Training available at: <https://www.cardinalhealth.com/prtraining/kangaroopumptraining/covidien.html>
- Kangaroo™ ePump Enteral Feeding Pump videos available at: <https://www.cardinalhealth.com/en/product-solutions/medical/enteral-feeding/resources/kangaroo-epump-enteral-feeding-pump-videos.html>
- **ENFit Poster**

#### Elsevier Links:

Feeding Tube: Enteral Nutrition via Nasoenteric, Gastrostomy, or Jejunostomy Tube

Feeding Tube: Enteral Nutrition Home Management Education

Feeding Assistance for Oral Nutrition

Feeding Tube: Irrigation

Feeding Tube: Medication Administration

Feeding Tube: Nasal Bridle Securement Device Insertion and Removal

Feeding Tube: Small-Bore Insertion and Care

Feeding Tube: Verification of Placement

Feeding Tubes: PEG, Gastrostomy, and Jejunostomy Care

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- Cardinal Health. (2018). To Ensure Patient Safety, think ENFit [infographic].
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