POLICY

This policy is intended to guide and support the safe and competent provision of care by Registered Nurses (RNs) to patients with an ileostomy/jejunostomy and a mucous fistula and who require mucous fistula re-feeding as a component of care. This policy will provide guidance to care providers by:

- Maximizing the absorption of nutrients (fats, sugars and proteins) and to assist with reabsorption of water and electrolytes and decrease/eliminate the need for TPN.
- Promoting enhanced nourishment for the growth and development of the infant/child.
- Stimulating intestinal activity at the distal portion of the bowel to minimize the discrepancy in lumen size between the two ends in preparation for surgical reanastomosis.

(Note: Re-feeding can potentially be done at any age but this policy refers specifically to the pediatric population)

Potential candidates for mucous fistula re-feeds include those infants/children who:

(Note: Candidates will be determined by the attending physician)

- have an ileostomy (or jejunostomy) which is proximal in the bowel;
- have a substantial length of bowel (usually the small intestine) which is distal to the primary ileostomy (or jejunostomy);
- have been having difficulty gaining weight with what appears to be an optimal number of calories through enteral feeding;
- are generally stable from a systemic point of view;
- are on an established enteral feeding program

PROTOCOL

1. Requires physician’s order which must include the following:
   a. Type and size of tube to be used (most commonly used tubes are: 6.5 Fr indwelling feeding tube and 6 Fr silicone indwelling “foley” catheter).
   b. When using a foley catheter, whether to inflate the balloon, and with how much water.
c. Depth that the tube is inserted  
d. Whether nurses can replace the tube should it fall out  
e. Maximum amount to be re-fed over 4 hours  

<table>
<thead>
<tr>
<th>Risks/Problems</th>
<th>Severity</th>
<th>Action</th>
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<tbody>
<tr>
<td>Perforation of the bowel especially if using inappropriate equipment (tube/catheter which is too large in diameter or too stiff)</td>
<td>Emergency – can lead to sepsis</td>
<td>Notify physician immediately</td>
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<tr>
<td>Intolerance of re-feeding, i.e. cramping and discomfort</td>
<td>Urgent</td>
<td>Contact physician – may need to decrease the rate of re-feeding and/or explore symptoms as an indication of an obstruction distally.</td>
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<td>Skin irritation around the mucous fistula due to leakage of re-fed upper intestinal contents</td>
<td>Non-urgent - Small bowel contents are more caustic to the skin than large bowel contents</td>
<td>If not responding to usual treatment for skin irritation (i.e. stoma powder/skin barrier films) contact the Enterostomal Therapy Nurse (ETN) for further consultation</td>
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| Difficulty keeping the tube/catheter secure in the mucous fistula             | Non-urgent        | May need to use a different method to secure the tube/catheter external to the mucous fistula.  
If using a feeding tube, consult with the physician regarding using a foley catheter and inflating the balloon.  
If already using a foley catheter, consult with the physician regarding inflating the balloon with a larger volume. |
| Tube/catheter may lacerate mucous fistula if secured to the side without use of a small roll and/or rotation of site | Non-urgent        | Reassess securement of the tube/catheter:  
- If the tube is secured with a Neobar® (Method #1) or out through the pouch as in Methods #2 and #3 there is little risk of lacerating the stoma.  
- If securing the tubing “Sandwich” style as in Method #3 it is important to rotate the area where the tube is secured. |
PROCEDURE

Insertion of tube/catheter

1. Gather necessary equipment:
   a. Catheter or feeding tube as ordered
   b. Water soluble lubricant
   c. Neobar®, Duoderm® Extra Thin CGF® and Jelonet®
   
   or
   
   Hollister Premie® Ostomy pouch and barrier (#3777) or Hollister Newborn®
   Ostomy pouch and barrier (#3778)
   
   or
   
   Other available equivalent products/device of choice to secure the tube/catheter
   d. Scissors
   e. 0.9% Sodium Chloride (NaCl)
   f. 3 mL syringe for inflating balloon of foley catheter
   g. Enteric feeding pump extension tubing (Note: this tubing is identified as orange in
   colour)
   h. Approved health centre syringe infusion pump; Important Note: label the
      infusion pump and tubing with a designated pre-printed label: “Mucous
      Fistula Re-feeding”
   i. 2 wash cloths: one damp, one dry
   j. 20mL syringe
   k. Waterproof tape
   l. Stomahesive paste
   m. Sucrose 24% if not contraindicated

2. Use comfort measures and Sucrose 24% to keep infant calm
3. Clean and dry area around the mucous fistula

Method #1: Using Neobar® to secure tube/catheter:

   a. Cut hole the size of the mucous fistula in a piece of Duoderm® Extra Thin CGF®
      and apply around the mucous fistula
   b. Use stomahesive paste to fill in any gaps (visible skin) between the mucous fistula
      and the barrier
   c. Apply lubricant to tip of tube/catheter and gently insert into the mucous fistula to
      the ordered depth; do not force if resistance is met
   d. If using a foley catheter, inflate the balloon only if ordered and with amount that is
      ordered (do not inflate to amount indicated on the catheter itself) Prior to insertion
      inflate and deflate balloon to ensure it is free of defects.
   e. Secure a Neobar® over the mucous fistula and secure tube/catheter to the
      Neobar® with tape
   f. Apply Jelonet® to the mucous fistula to keep it moist
Method #2: Using Hollister Premie® ostomy pouch and barrier (#3777) or Hollister Newborn® ostomy pouch and barrier (#3778) to secure tube/catheter:

1. Cut hole the size of the mucous fistula in the barrier and apply around the mucous fistula
2. Use stomahesive paste to fill in any gaps (visible skin) between the mucous fistula and the barrier
3. Prior to inserting the tube/catheter, secure the ostomy pouch to the barrier
4. Cut a small hole in the pouch near or over the mucous fistula. Thread the tube/catheter through the hole and into the mucous fistula.
5. If using a foley catheter, inflate the balloon only if ordered and with amount that is ordered (do not inflate to amount indicated on the catheter itself)
6. Secure the catheter to the pouch with waterproof tape. (This serves to hold the tube/catheter in place as well as keep the mucous fistula moist)

Method #3: Using “Cut” Hollister Premie® ostomy pouch and barrier (#3777) or Hollister Newborn® ostomy pouch and barrier (#3778) to secure tube/catheter:

1. Cut hole the size of the mucous fistula in the barrier and apply around the mucous fistula
2. Use stomahesive paste to fill in any gaps (visible skin) between the mucous fistula and the barrier
3. Prior to inserting the tube/catheter, cut the bottom of the pouch off leaving 2 inches (approximately) and secure the pouch to the barrier
4. Thread the tube/catheter through the hole and into the mucous fistula.
e. If using a foley catheter, inflate the balloon **only if ordered** and with amount that is ordered (do not inflate to amount indicated on the catheter itself)
f. Secure the catheter to the pouch with tape. (This serves to hold the tube/catheter in place as well as keep the mucous fistula moist).

Method #4: Using Hollister Premie® ostomy pouch and barrier (#3777) or Hollister Newborn® ostomy pouch and barrier (#3778) to secure tube/catheter:

a. Cut hole the size of the mucous fistula in the barrier and apply around the mucous fistula
b. Use stomahesive paste to fill in any gaps (visible skin) between the mucous fistula and the barrier
c. Place tube or catheter as ordered
d. Using two pieces of thinned out paste (e.g. Eakin Cohesive® Seal or SecuPlast® Moldable Seal), sandwich the catheter before applying the pouch to the barrier.
e. Add a little more of the same paste and Duoderm® Extra Thin CGF® once pouch is applied to ensure it doesn't leak.

*When using this method it is important to vary location where the catheter or tube is secured with each pouch change so as not to traumatize the same spot on the stoma (e.g. rotate from left to right, or top and bottom)*

Mucous Fistula Re-feeding

1. Content from the proximal stoma is emptied and measured every 4 hours. If there is a significant change in volume, colour or consistency, notify medical staff.
2. It is then re-fed into the distal bowel over the following 4 hours unless ordered otherwise (Refer to Protocol 1 - e)
   a. Attach feeding extension tubing to syringe and place syringe into the infusion pump
   b. Flush re-feed catheter with 1-2 mL 0.9% NaCl before and between re-feeds (this may be dependent on volume infant can tolerate)
   c. Re-feed at the ordered rate; if leaking occurs from mucous fistula it may be necessary to 1) progress catheter farther into the mucous fistula, 2) inflate, or increase volume of foley catheter balloon or 3) decrease rate of re-feeding
   d. Observe for abdominal distension, bowel sounds, signs and symptoms of bowel obstruction and diarrhea

GUIDELINES

1. Silicone catheter can be changed weekly; if falls out between/during re-feeds, wash off with a mild soap and water, rinse well and re-insert
2. Ostomy drainage often contains air; gently tip the infusion pump so that air is not infused into the mucous fistula.
3. Do not use a stopcock on the re-feed catheter as it will leak
4. If refeed catheter occludes, flush with 1-2 mL 0.9% NaCl to clear
5. Assess infant for tolerance of re-feeding, adjust rate accordingly if baby uncomfortable
6. Observe for abdominal distension, bowel sounds, diarrhea, amount of stool passing rectally
7. If Duoderm® Extra Thin CGF® or barrier become detached carefully remove, clean and dry area, and replace
8. Effluent can be strained using urine strainer to prevent tube blockage
9. If effluent is stored in fridge warm it to room temperature prior to using
10. Wiping the catheter or tube with a 3M Cavilon® Skin Barrier wipe will ensure it is dry so pastes will seal around it

REFERENCES


BC Children's Hospital, Policy & Procedure Committee, *Mucous Fistula Refeedings: Setup and Initiating Refeeds* Last revision August, 2009 (Shared by e-mail September 14, 2011)


RELATED DOCUMENTS

Policies:
Medication Management Policy #20.36 – Oral Sucrose Administration for minor Procedural Pain Management in Infants Less Than or Equal to 12 Months of Age

Medication Management Policy #10.15 – Labeling of Medications Outside of Pharmacy

Clinical Policy #755 - Colostomy/Ileostomy/Urostomy: Care and Management