Distal Mucous Fistula Re-feeding
East Bay Newborn Specialists Guideline
Prepared by P Joe, A D'Harlingue
Updated 8-30-13

Background:
Retrospective reviews and case reports demonstrate that re-feeding of ostomy effluent through the distal stoma (mucous fistula) is a safe method which prevents atrophy of the distal bowel, promotes intestinal adaptation and improves weight gain. By decreasing the TPN requirement, TPN-related complications may be potentially reduced. Technically, eventual reanastomosis may be easier as the size discrepancy between the two lumens decreases by promoting adaptation.

Candidates for Distal Mucous Fistula Re-Feeding:
- "Double Barrel" type ostomy (not Santuli or Bishop-Koop)
- Ostomy output > 30% of enteral intake when enteral intake > 40ml/kg/day

Prior to Beginning Distal Mucous Fistula Re-Feeding:
- The mucous fistula should usually be imaged prior to initiation of feeds
  Distal re-feeding should be approved by the attending surgeon.

Set Up:
- Remove ostomy bag and identify the distal stoma (mucous fistula). It will be the stoma with no output.
- Make a notation on the Kardex that identifies the distal stoma by location on the abdominal wall. Example: Lateral, medial.
- Apply the hydrocolloid wafer to the peri-stomal skin that has been protected with No Sting skin barrier.
- Cannulate the distal stoma with a silicone 6 Fr Foley catheter. As the volume increases, it may be necessary to use an 8 French Foley.
- Advance the catheter into the mucous fistula to a predetermined length, specified by the surgeon.
- Inflate the Foley balloon with 0.5-1 ml of water.
- Lay the catheter down onto the hydrocolloid wafer, and apply a second wafer and pouch on top of this so the Foley is in between the two wafers. It may help to secure the Foley to the wafer with a piece of transparent dressing before attaching the second wafer and pouch

Initiation of Re-Feeds:
- Empty contents of ostomy bag (stomal effluent) into a syringe or medicine cup.
- Record the ostomy output on the nurse's notes in its own separate column of output.
- Place the stomal effluent into an enteral delivery set.
- Place the feeding pump on the opposite side of the bed from the TPN; label the pump "Distal Stoma Refeeds".
- Insert the extension tubing with orange stripe into the end of the Foley.
- Infuse ostomy output as a continuous infusion into the distal stoma at the ordered rate. When infusion of proximal ostomy output into the distal stoma is started for the first time, the infusion rate is usually at 1 ml/hr. Often the distal stoma infusion rate is then increased in increments of 1 mL/hr on a daily basis. For patients who have been on distal stoma refeeding before and it has been temporarily interrupted, it may be possible to restart distal refeeding at a higher rate than 1 mL/hr and/or increase in larger increments than 1 mL/hr daily.
- Use the Infinity Orange enteral pump to deliver the stomal effluent to the stoma and refill the delivery set bag every four hours at a time. The tubing set up is changed every 24 hours. If

the patient is under 36 weeks, the tubing is changed every 4 hours. Refer to the Enteral Nutrition Delivery on Enteral Pumps chart posted in the unit.

- As proximal stoma amounts increase, consult with physician about advancing the rate of the distal re-feed. Advance only if stooling rectally and no distension.
- Re-feed tubing should be physically separated from all IV tubing and central line insertion site.

Patient Assessment and Monitoring:

- Check that Foley is in stoma, every 4 hours.
- Assess bag security every hour 4 hours.
- Measure and record abdominal girth every shift.

Reportable Conditions:

- Report if no rectal stool is passed in 24 hours.
- Report the presence of visible blood in rectal stools.
- Report if unable to insert Foley or if resistance to passing Foley.
- Report abdominal distension.
- Report signs of infection.

Documentation - Nursing Progress Record:

- Document the insertion of the distal bowel tube, the length of catheter inserted and the amount of water used to inflate the balloon
- Record the amount of proximal stoma output in the “output” column.
- Record every hour the amount of distal stoma re-feeding in the “other” column, next to the “output” column.
- Document the number, size and description of rectal stools.

Documentation - “Pink Sheet”

- Document the ostomy output by subtracting the refeed volume from the ostomy output. In other words, record any ostomy output that is thrown away.
- Do not document the distal bowel infusion as intake.
- Document the number of rectal stools separately from the ostomy output.

References:

Gardner Va, et al. A case study in utilizing an enteral refeeding technique in a premature infant with short bowel syndrome. Advances in Neonatal Care, Vol 3, No 6 (December), 2003: pp 258-271

Richardson LA, et al. What Is the Evidence on the Practice of Mucous Fistula Refeeding in Neonates With Short Bowel Syndrome? J Pediatr Gastroenterol Nutr, Vol. 43, No. 2, August 2006

Wong KK, et al. Mucous Fistula Refeeding in Premature Neonates With Enterostomies,J Pediatr Gastroenterol Nutr, Vol. 39, No. 1, July 2004