Health Sciences North
Horizon Santé-Nord

INPATIENT DIETITIAN GROUP

PROCEDURE

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PURPOSE

To ensure a standardized approach to the administration of enteral nutrition and unblocking of enteral feeding tubes.

PROCEDURE

Equipment

Administration

- Non-sterile gloves
- Enteral feeding pump (if necessary)
- Prescribed feeding solution
- Disposable feeding tubing
- 60 mL syringe (catheter tip or luer lock to fit feeding tube being used)
- Stethoscope
- IV pole
- Water (tap or sterile water for irrigation)
- Catheter tip plug /clamp (if necessary)

Unblocking

- Cotazyme capsule
- 325 mg Sodium Bicarbonate tablet
- 10 mL sterile water
- 60 mL syringe

Special Instructions

Administration

- A nurse may administer enteral tube feedings for the purpose of providing nutrition:
    - Upon receiving a physician's order
    - After initial placement of a feeding tube has been confirmed by established bedside techniques and confirmed by ability to flush tube and aspirate gastric contents

- A post insertion x-ray "abdomen feeding tube position" is required if correct placement cannot be confirmed by ability to flush tube and aspirate gastric contents.
- Intestinal feeding tubes placed under fluoroscopy do not require additional tube placement confirmation.
- Tip placement of feeding tubes placed under fluoroscopy must be confirmed by a radiologist, if not already indicated on chart.
- All feeding tubes inserted with a stylet (guide wire) must be performed by a physician and sent for a post insertion x-ray (i.e. abdomen for feeding tube position) prior to commencing feeding.
- All adult enteral tube feedings should be initiated using the *Enteral Tube Feeding Orders – Adult* form, unless otherwise ordered by the physician.
- Do not add any medications directly to any enteral feeding formula.
    - DO dilute medications appropriately prior to administration
    - DO NOT mix medications together
- For all immune compromised and critically ill patients, use sterile water to dilute medication and irrigate/flush tubing. For all other patients, use tap water.
- Intestinal feeding tubes (nasojenunal (NJ), nasoduodenal (ND), PEG-J and J) should not be aspirated unless ordered by the physician.

- Flush the enteral feeding tube with 15 mL of water:
    - Before administering medications
    - Between consecutive medications
    - After all medications are given
    - Each time a feeding is held (i.e. OR, tests/procedures etc.)
    - After intermittent feedings

- Change the feeding bag/administration set:
    - Q24H for an open system
    - Q48H for a closed system
    - Q24H for all other equipment (syringe, cup, k-basin)
    - Any modular nutrition products that are being flushed via feeding tube (i.e. protein powder) and left in open containers at the bedside should be treated as an open system and emptied/rinsed Q8H.

- Significant changes to potassium, magnesium and/or phosphorus should be reported to the Physician and or Dietitian for further assessment.
- Record the total volume of enteral formula and water administered in the ins/outs section of the chart. Refer to the back of *Enteral Tube Feeding Orders-Adult* form for free water content of enteral formula.

Unblocking

- A nurse may unblock a feeding tube to re-establish patency.
- A physician order is required for medications provided by Pharmacy. The medication required is already ordered if the *Enteral Tube Feeding Orders-Adult* form is completed.
- If a feeding tube is blocked and repeat administration is required in less than 24 hours, notify the attending physician on rounds.
- DO NOT use a small-bore syringe because it exerts too much pressure and can rupture the tube.
- DO NOT use juice or colas to flush or open a clogged feeding tube.

Method

All Systems

The nurse will:

1. Elevate the head of the bed to a 30° to 45° angle, unless contraindicated.
2. Confirm the initial placement of all feeding tubes. Verify the visibility of the black marking on the feeding tube exit site.
3. When feeding tubes are re-inserted or repositioned by nursing, confirm tube placement as follows:
   A. Inject 20 mL of air into the feeding tube to ensure patency and that the tube is free of kinks.
   B. Attempt to aspirate stomach contents (typically grass green to clear and colorless).
   C. If unable to flush and no aspirates are obtained, confirm placement with a chest x-ray as per the *Enteral Tube Feeding Orders- Adult* Form.
4. Verify the product and check the expiry date.
5. Shake the enteral formula to ensure adequate mixing of its contents.
6. Follow the procedure specific to the feeding system to be used (as outlined below).
7. If the patient complains of fullness or discomfort, reduce the feedings to the previously tolerated rate and notify the physician/dietitian on next rounds.
8. Unless otherwise ordered, flush the tubing with 30 mL of water Q4H to prevent blockages.
9. If not using the automatic water flushing feature, administer supplemental water as ordered.

Open System – Pump Administration (Continuous/Intermittent)

1. Pour an 8 hour supply of enteral formula into the feeding bag and suspend it from the pole. Pour in whole cans or tetra packs and allow the enteral feeding pump to do the measuring.
2. If using the automatic water flushing feature, add 8 hours of water to the water bag and suspend from the pole.
3. Label the feeding bag with the patient's name, product name, and date and time of setup.
4. Place the tubing in the pump and prime the tubing.
5. Regulate the rate set on the feeding pump as prescribed.
6. After each 8-hour period:
   A. Discard any enteral formula left in the feeding bag.
   B. Rinse the feeding bag and tubing with water. If using the automatic water flushing feature, discard any water left in the water bag.
   C. Add the next 8 hours of enteral formula to the feeding bag.
   D. If using the automatic water flushing feature, add 8 hours of water to the water bag.

Open System – Gravity Administration

1. Pour an 8 hour supply of enteral formula into the feeding bag and suspend it from the pole. Pour in whole cans or tetra packs and allow the enteral feeding pump to do the measuring.
2. Label the feeding bag with the patient's name, product name, date and time of setup.
3. Open the clamp and prime the tubing.
4. Using the roller clamp, regulate the gravity drip rate as prescribed.
5. After each 8-hour period:
   A. Discard any enteral formula left in the feeding bag.
   B. Rinse the feeding bag and tubing with water. If using the automatic water flushing feature, discard any water left in the water bag.
   C. Add the next 8 hours of enteral formula to the feeding bag.
   D. If using the automatic water flushing feature, add 8 hours of water to the water bag.

Closed System – Pump Administration

1. Shake the closed system container/bag well.
2. Hang the closed system enteral formula container/bag on the pole.
3. If using the automatic water flushing feature, add 8 hours of water to the water bag and suspend from the pole.
4. Label both the feeding container/bag and the administration set with the date and time of setup.

If spiking a feeding container:	A. Lift the tab to remove the sticker. B. Visually inspect the foil under the plastic cap. If a sign of leakage is noted, do not use product. C. Spike the container until no further insertion is possible, then turn the spike ¼ turn. D. Invert the container and suspend it from the pole. Formula should appear under the clear plastic cap. E. Place the tubing in the pump and prime the tubing.
If spiking a feeding bag:	A. Spike the feeding bag. B. Place the tubing in the pump and prime the tubing.

Unblocking

The nurse will:

1. Mix the Cotazyme capsule and Sodium Bicarbonate in 10 mL of sterile water (enzyme mixture).
2. Draw up 5 mL of the enzyme mixture into a large bore syringe (the total volume does not need to be instilled if resistance is encountered) and instill in the feeding tube.
3. Wait 5 minutes, then attempt to flush with 60 mL of sterile water.
4. If the tube remains occluded, leave the syringe attached and allow the mixture to sit in the tube for an additional 30 minutes. Flush the tube with 60 mL of sterile water.
5. If the tube remains occluded, repeat Steps 1 to 4 **once**.
6. If unsuccessful, leave the tube in situ and notify the most responsible physician.

EDUCATION AND TRAINING

Education/Training Related Information

Open System

- Uses an open top feeding bag that is filled with enteral formula prior to administration
- Hang only the amount of enteral formula needed to last 8 hours

Closed System

- Uses a bag/container that is pre-filled with enteral formula
- Must be administered by a feeding pump
- Can hang for up to 48 hours before changing if a new feeding/spike set is used. Otherwise, hang the solution no longer than 24 hours.

References and Related Documents

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