Saskatoon Health Region	Policies & Procedures Title: **ENTERAL FEEDING TUBE WITH A STYLET: ASSISTING WITH INSERTION OF: CARE OF, REMOVAL OF** ID Number: **1109**
Authorization [X] SHR Nursing Practice Committee	Source: Nursing Date Reaffirmed: January 2017 Date Revised: May 4, 2011 Date Effective: June 2000 Scope: **Saskatoon City Hospital** **Royal University Hospital** **St. Paul's Hospital**

1. PURPOSE

1.1 To minimize complications associated with enteral tube insertion

1.2 To administer feeding solutions directly into the stomach and duodenum

2. POLICY

ALERT - Inadvertent **placement in** the trachea can lead to severe complications: pleural injury, pneumothorax, tracheobronchial aspiration, pneumonia, and death if fluids or other agents are infused (Walsh et al, 2016).

2.1 Only a physician will insert an Enteral feeding tube with a stylet.

2.2 **An x-ray will be done following insertion prior to commencement of feeding to determine tube placement.** The Most Responsible Physician or designate physician MUST confirm placement with the Attending Radiologist, Radiology Resident or credentialed non radiologist. The confirmation MUST be written into the practitioners orders stating " tube placement verified by X-ray and may be used". It is recommended practice to remove the stylet after placement is confirmed. A nurse or physician can remove the stylet.

2.3 **Contraindications/Cautions to nasal/oral Enteral tube feed placement**

- Facial fractures
- GI bleeding
- Esophageal varices
- Recent gastric, duodenal, esophageal ear, nose and throat surgery
- Severe coagulopathies
- Nasal insertion is contraindicated in patients with epistaxis or sinusitis and in patients with head injury ie) basal skull fracture

2.3.1 In the patient with decreased level of consciousness, or heavily sedated, or lacking a gag reflex potential for inadvertent respiratory placement can occur.

2.3.2 If the patient is unconscious, position with head down preferably in a left side lying position for insertion.

2.3.3 Caution when inserting enteral feeding tube in the patient with suspected cervical spine injury. Stabilization of the head is required to avoid excessive manipulation or movement.

Note: *It is recommended to check INR/PTT, hemoglobin and platelets prior to procedure to rule out coagulopathies.*

2.4 If the patient is intubated or has a cuffed tracheostomy tube leave cuff inflated during insertion.

3. PROCEDURE

3.1 Assisting with Insertion:

3.1.1 Obtain supplies:

- weighted enteral feeding tube with stylet
- water soluble lubricant
- clean gloves
- incontinent pad
- tape / or tube attachment device (SKU # 125156 or 88602)
- skin prep
- safety pin/elastic
- 60 ml catheter tip syringe
- stethoscope
- K-basin
- permanent felt marker
- Enteral Infusion Pump with appropriate feeding bag
- Functioning Suction apparatus
- Measuring tape

3.1.2 Position patient upright at 30-45 degrees

Note: *The patient should always have head of bed 30-45 degree elevation to decrease risk of aspiration.*

3.1.3 The Physician shall:

3.1.3.1 Insert the tube into the stomach in the same manner as a nasogastric tube

3.1.3.2 Have suction ready to prevent aspiration.

3.1.3.3 After insertion, physician checks for position by injecting air into the tube, and listening with a stethoscope over the stomach. If properly placed a "rush" of air should be heard.

Note: *Confirmation of tube position by aspiration of gastric contents is unreliable because the tube will collapse when aspiration is attempted.*

3.1.3.4 **Order X-ray for tube placement.** The requisition MUST indicate reason for the X-ray. I.e. – Chest x-ray for confirmation of gastric tube placement

3.1.3.5 **Confirmation of tube placement. The Most Responsible Physician (MRP) or designated physician** will review x-ray with Attending Radiologist, Radiology Resident, or credentialed non radiologist. Practitioner order MUST be written stating "Tube placement verified by X-ray and may be used"

3.1.4 The Nurse shall:

3.1.4.1 Cleanse the patient's nose and cheeks. Rinse thoroughly and dry completely. Do not use any lotions or emollients as the oily residue will interfere with the adhesion of the securing method.

3.1.4.2 Secure the tube with tape or Tube Attachment Device. If the patient is diaphoretic, apply skin prep to the skin surface to be covered.

3.1.4.3 Adults:

- Method 1 – Available tube securing devices (refer to manufactures instructions)

- Method 2– Cut an 8 cm length of 2.5 cm tape. Cut one end up the center about 4 cm. Tape the untorn end to the nose. Criss-cross the two free ends around the tube. Apply another piece of tape over the bridge of patient's nose.

3.1.4.4 Pediatrics:

- Use tape length appropriate for patient's size and tape to nose as above. Apply tube securing device to anchor tube onto cheek.

3.1.4.5 Using a safety pin and elastic band or tape, secure tube to patient's gown.

3.1.4.6 Mark the tube (at the exit site) with a permanent marker and measure external length of tube from nares to end of tube. Document.

3.1.4.7 Obtain chest x-ray. Note on the requisition MUST indicate that the x-ray is for confirmation of feeding tube placement. (i.e. Chest X-ray for confirmation of Gastric feeding tube placement)

3.1.4.8 Remove stylet-once placement has been confirmed by the physician and practitioner order is written stating that tube placement verified by xray and may be used. It is recommended to flush the tube with the stylet with sterile saline/or water and gently remove the stylet. This removal can be done by licensed healthcare professionals.

3.1.4.9 To assist passage of the tube into the duodenum, elevate the head of the bed more than 30 degrees or more if tolerated, and position the patient on the right side. It may take 48 hours for the weighted tube to move down the GI tract with peristalsis.

Note: *The patient should always have head of bed 30-45 degree elevation to decrease risk of aspiration.*

3.1.4.10Documentation:

- Name of physician inserting tube
- Size of tube inserted
- Nares used

- Method of securing
- "Placement" mark on the tube and measure the external length from nares to end of feeding tube. Document this measurement in the care plan and nursing notes.
- Confirmation of Chest x-ray done. Notification of physician to check x-ray
- Patient's tolerance of procedure
- Removal of stylet

3.2 Care of:

3.2.1 Assess for coiling of the tube if patient presents with gagging, coughing, and vomiting. (Check the back of throat using a tongue depressor and flashlight).

3.2.1.1 "Placement" mark on the tube. It is recommended to check tube placement q4h. This includes checking the tube anchoring device and the measurement.

3.2.1.2 Possible improper tube placement into lungs if patient becomes dyspneic or cyanotic.

3.2.1.3 Complications
- Pulmonary aspiration
- Respiratory Distress
- Nasal mucosa erosion or trauma
- Bradycardia

Note: *Hold tube feeding and NOTIFY the physician immediately if there is any doubt regarding tube placement.*

3.2.1.4 An infusion pump should be used for continuous enteral feedings to accurately control the rate of administration. An enteral infusion pump is preferred.

Note: *Gravity feeding sets may be used for intermittent or bolus feeds.*

Note: *For administration of tube feed, see the following Policy – Enteral Tube Feeding.*

3.2.2 Perform mouth care q1-2h to prevent damage to the oral mucosa while feeding tube in place since mouth breathing is common in patients who have a nasal tube present.

3.2.3 Perform nose care each shift and prn.

3.2.4 Re-secure the tube to patient's nose as necessary, maintaining position of tube as marked.

3.2.5 Documentation should be ongoing and include.
- Position of tube
- Type and rate of tube feed
- Mouth and nose care done
- Re-securing of tube
- Bowel sounds

- Bowel movements – number of and consistency of stool
- Any abdominal distention, discomfort, nausea or vomiting

3.3 Removal of enteral feeding tube by licensed healthcare professional

Note: *Tube feeds do not need to be held before removing feeding tube unless patient has significant gastric residual or there are clinical signs of retention. In these situations, the tube feeds should be stopped for 2 hours prior to tube removal.*

3.3.1 Obtain:
- Incontinent pad
- Normal saline
- Catheter tip syringe
- Adhesive remover
- Face cloth

3.3.2 Position patient in upright position 30-45 degrees

3.3.3 Place incontinent pad over patient's chest.

3.3.4 Unpin tube from patient's gown and remove tape or securing device from nose.

3.3.5 Insert 10-20mls of N/S into tube and clamp it by kinking it in your hand.

Note: *This is to avoid aspiration of tube feed.*

3.3.6 Ask patient to take a deep breath and hold it. If patient is unable to follow instruction remove tube on inspiration.

3.3.7 Withdraw the tube gently but quickly and wrap in incontinent pad and discard.

Note: *Check tube to ensure entire tube was removed.*

3.3.8 Clean tape residue, from patient's nose with adhesive remover if necessary.

3.3.9 Wash patient's face.

4. REFERENCES

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