POLICY

A registered nurse requires a written physician’s order for insertion of a transpyloric (TP) feeding tube.

A physician is to insert TP tubes in the following patients unless otherwise ordered:

1. Gastric ulceration
2. Anterior basal skull fracture
3. Nasal, pharyngeal, or facial anomalies, trauma or surgery
4. Previous esophageal or gastric surgery (i.e. fundoplication, TEF)
5. Altered gag or swallow reflex
6. Coagulopathies

NOTE: Registered nurses in critical care without previous TP tube insertion experience must be supervised by a critical care colleague (physician, fellow, or nurse) who have successfully inserted two TP tubes in PICU.

PROCEDURE

1. Identify patient
2. Check chart for physician’s order
3. Assemble equipment:
   1. Medications (i.e. gastrointestinal stimulant, sedation) if ordered
   2. Select appropriate sized silastic TP tube for the patient
      (#6 Fr in children <1 yr; #8 Fr in children > 1 yr).
   3. Flush with 10cc of sterile H2O before insertion to dissolve internal tube lubricant.
   4. Water-based lubricating jelly
   5. 10mL syringe
   6. Occlusive tape (e.g. Tegaderm, Opsite)
   7. Clean gloves
   8. Stethoscope
4. Explain procedure to patient and family
5. Obtain the help of a second RN
6. Wash hands. Put on clean gloves
7. Place patient in supine position, keeping their head midline
8. If patient already has an NG tube in place, aspirate stomach contents until empty and clamp or cap tube.
9. Ensure the wire can be easily removed from feeding tube and is not stuck to the inside of the silastic TP tube by withdrawing wire approx. 10 cm. Reinsert wire ensuring the blue (or pink) end fits snugly into silastic TP tube.
10. Two measurements are required for tube insertion lengths, and marked on the TP tube
   1. Stomach distance. Measure the distance (using the silastic tube as your measure) from the nares to the tragus, and then to the xiphoid process. This is the distance for gastric
placement. Note length by the markings on the TP tube.

2. Chest diameter measurement. This is the distance from one side of the chest to the other. Measure chest diameter starting at the stomach distance marking. Place the stomach distance marking laterally at the mid-axilla position and measure across the xiphoid process with TP tube to mid-axilla on other side. Note length. This is your TP tube placing.

**Jejunum (transpyloric) measurement:** = stomach distance + chest diameter measurement

11. Administer pre-procedural gastrointestinal stimulant as ordered.

12. Lubricate the end of the tube and insert into nare. If able, ask the patient to swallow and bring chin to chest. The child’s head should be tilted forward to help deflect the tube away from the trachea as the tube descends.

**NOTE:** If the patient has a naso-gastric tube insitu, insert TP tube into same nare, if possible. It may be guided into the esophagus by following the NGT track.

13. Advance tube to the first marked length. If resistance is met rotate tube slowly. Never force tube. Remove if patient has a persistent cough or shows signs of respiratory distress.

14. Positioning of the TP tube in the stomach should be suspected by the following:
   1. Attach a syringe to the end of the tube
   2. Flush the tube with 10 mL of air (5 mL with infants)
   3. Easy re-aspiration of 5-10 mL insufflated air.

15. Insufflate with 10 mL air (5 mL in <1 yr) prior to advancing by 2 to 3 cm at a time. Aspirate after each advancement.

16. The tube is considered post-pyloric when unable to aspirate air. Continue step #15 until second mark reached.

**NOTE:** Suspect tube kinking or coiling if undue resistance met, air not easily insufflated, or the tube backs out when released. Withdraw tube several centimeters and reattempt transpyloric insertion. May feel a subtle ‘give’ as the tube is advanced through the pylorus.

17. Temporarily secure the tube with tape to the patient’s ETT (if insitu) or cheek. Leave guide wire in situ until position confirmed by abdominal x-ray. NEVER reinsert guide wire while tube is in the patient.

If incorrect placement, pull back and reattempt if patient condition allows.

**HINT:** If patient condition allows, applying upward pressure on abdomen may assist in achieving correct placement on second attempt. **Ask physician for guidance and assistance.**

18. Once placement confirmed, remove guide wire and secure feeding tube with tape.

**NOTE:** Silastic feeding tubes are replaced every 30 days.

19. Mark tube position at nare with tape – record this distance.

20. Document in the patient’s health record:
   a. Procedure and time
   b. Correct tube position
   c. Record lot number
   d. Type, size and placement of tube
   e. Confirmation of placement, and distance at nare
   f. Patient’s tolerance of procedure
   g. CXR confirmation
REFERENCES


