Clinical Pathway: Gastric Tube Replacement

July 2021

Outcomes/Goals	1. Identification and expedited treatment of pediatric patients presenting with need for gastric tube replacement 2. Create a team-oriented approach to treatment and care 3. Correct tube replacement and confirmation of tube placement
NURSE Documentation	Chief complaint. Time/date and mechanism of how tube was displaced or removed. Date of tube placement. Size, length and type of tube if known. Tube dependent feeding and medication status. Abdominal and skin assessment. Facilitate delivery of regularly scheduled medications via different route if > 60-minute delay expected. Assess and evaluate need for IV hydration if delay of replacement anticipated (>4 hours).
INTERVENTIONS Initiate on arrival	ESI Triage level III or IV (depending on date of tube placement) Full set of vitals per NPEOC Identify and locate correct replacement tube – to bedside (see guidelines page 3) Foley catheter to bedside if delay in locating correct tube size or delay in surgery resident/attending anticipated (10 or 14 Fr. Foleys are most common but may have to adjust up or down depending on pt/size of track) Pt may be sent out with Foley in place if follow-up in clinic within 24 hours.
DIAGNOSTICS	• If Needed: Order post placement confirmation x-ray as: **Abd Tube Cath Eval with Contrast (not Fluro) for GT Placement Confirmation**
PHYSICIAN (LIP)	
Medication	10mLs Omnipaque up to 15 minutes prior to post placement confirmation x-ray. **Must be administered by physician**.
Tube Replacement Recommendations	***New G- tubes <8 weeks of placement***: call Peds surgery for replacement/consult. If correct tube size not immediately available or unable to place tube place a Foley in track to preserve stoma. To place Foley, use lubricant, insert about 2 inches, do not force, do not inflate balloon, tape Foley to abdomen. Confirm all new G-tube placements with Dye study. IF Foley will be used for feeds, confirm Foley placement with dye study. ***Mature G-tube tract > 8-weeks:*** RN confers with attending MD, and if no contraindications (contraindications include but not limited to: immature tract, site not patent, Bard tube) – RN or MD replaces tube and confirms placement by aspiration of gastric contents. If RN unable to easily replace tube then MD to replace. If multiple attempts required to replace tube then, perform dye study. ***All G-J Tubes***: IR consult for tube replacement
Exclusion Criteria	Abd pain with G-Tube removal Moderate, or brisk bleeding at site Traumatic removal or other recent Abd surgery or trauma
G-tube availability	Size and location searchable by Par X

Clinical Pathway Decision Making Process

Gastric Tube Replacement

July 2021

Preserve Tract

10-14 Fr Foley
Use lubricant
Do not force
Do not inflate balloon
Secure with tape to abdomen

Immediate Action

1. Triage, ESI 3 or 4
2. Document time of tube removal and determine if mature or immature tract
3. Locate replacement tube and place at bedside
4. If replacement tube unavailable locate similar diameter Foley
5. Place Foley to preserve stoma. Use lubricant, do not force, Do not inflate balloon, tape to Abdomen. Use sequentially smaller Foleys if unable to pass same size as G-tube

Contraindications to RN replacing tube:

- Immature tract
- Site not Patent
- Bard tube
- Not easily

New G- tubes <8 weeks of placement

- Call Peds surgery for replacement/consult.
- Confirm placement by X-ray dye study with 10 mL Omnipaque

Mature G-tube tract > 8-weeks

- RN confers with attending, RN/MD may replace tube; if any contraindications listed above then MD to replace tube; MD only replace Bard tubes and consider pain and/or Anxiolysis medication.
- Confirm placement by aspiration of gastric contents.
- If RN unable to replace easily, then MD to replace, if multiple attempts required to replace tube then perform dye study.

All G-J Tubes

- IR consult for tube replacement
- 4-7660 or EPIC Page to IR resident on call

DYE STUDY

- Abd Tube Cath Eval with Contrast (not Fluro) for GT Placement Confirmation
- MD pushes 10 mL Omnipaque prior to X-ray

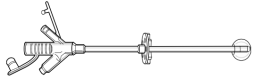
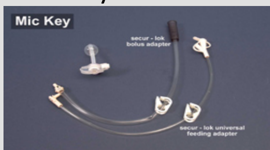
Clinical Pathway Decision Making Process

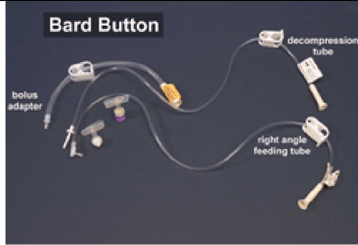
Gastric Tube Replacement Rationale and Data

July 2021

Goals of Clinical Pathway

1. Identification and expedited treatment of pediatric patients presenting with need for gastric tube replacement
2. Create a team-oriented approach to treatment and care
3. Correct tube replacement and confirmation of tube placement

Styles of G-tubes	
MIC long balloon 	Easily pulled out d/t long length Sometimes used as primary initial tubes Easily changed in clinics or home. **<u>Steps in replacement:</u>** Assess patency of site and maturity of tract. Any tract, < 8 weeks old needs surgical consult. Check the GT balloon for leaks by injecting a small amount of sterile water into the balloon port (follow manufacturer's recommendation for amount of water) Withdraw instilled water from balloon Lubricate balloon tip Hold the tip of the GT perpendicular to the Abd, in the direction of the stoma tract and pass the tip of the GT into the opening with steady firm pressure. Never force the GT to advance. If unable to pass, notify MD. If excessive bleeding, stop and notify MD. Once in place, inflate the balloon per manufacturer recommendations. Check placement by aspirating stomach contents. Clean site with sterile water and cotton-tip swab. **Post tube placement, monitor for**: extreme pain, changes in vital signs, leakage of gastric content, vomiting, bleeding, skin erosion, stoma enlargement, and/or inability to administer feedings or medications.
Low profile balloon tube "Mic-key" 	Preferred type by OHSU Peds surgeons Found in the OR and through Logistics Easily changed out in clinics, ERs, and at home. **<u>Steps in replacement:</u>** Assess patency of site and maturity of tract. Any tract, < 8 weeks old needs surgical consult. Check the GT balloon for leaks by injecting a small amount of sterile water into the balloon port (follow manufacturer's recommendation for amount of water) Withdraw instilled water from balloon Lubricate balloon tip Hold the tip of the GT perpendicular to the Abd, in the direction of the stoma tract and pass the tip of the GT into the opening with steady firm pressure. Never force the GT to advance. If unable to pass, notify MD. If excessive bleeding, stop and notify MD. Once in place, inflate the balloon per manufacturer recommendations. Check placement by aspirating stomach contents. Clean site with sterile water and cotton-tip swab. **Post tube placement, monitor for**: extreme pain, changes in vital signs, leakage of gastric content, vomiting, bleeding, skin erosion, stoma enlargement, and/or inability to administer feedings or medications.
Low Profile Non-balloon Types "BARD"	Replaced in peds specialty clinic or operating room Painful to replace and Children generally need oral anxiolytic and/or pain medication prior to change **<u>Only Physicians change</u>** AMT tubes are special order

	BARD tubes are clinic supply

Other considerations/complications:

Immature tract: If a G tube tract has not been established (> 8 weeks), then replacement is required by Peds surgery and a dye study is required to confirm placement, d/t risk of tube being misplaced into peritoneum causing peritonitis.

Clogged G tube: Warm water is first line. 60mL syringe. DO NOT use HOT water. Do not force water, firmly push and pull plunger back and forth. Clamp the tube x 20 minutes allowing water to "soak." Repeat if necessary. Coca-Cola not recommended as it can cause precipitate with casein. If warm water does not work, consider mixing an enzyme capsule (Lipase-protease-amylase 6000-19000-30000 CREON) with 325 mg Sodium Bicarbonate tablet and dissolving in 5 mL water. Instill mixture into tube and clamp x 5 minutes then flush with push-pull method with water.

Granulation Tissue: Excessive tissue growth around the tube commonly with mucus or bloody drainage. Use silver nitrate and/or Triamcinolone 0.5% TID x 2 weeks Protect skin from gastric contents with barrier creams (preferably zinc oxide). Avoid tension or friction at the site. If excessive, call Peds Surgery.

Site Infection: Rare but can be serious. Erythema, tender, purulent drainage. Treat with systemic antibiotics

Leakage: Appropriate fit? (Usually want 3-4 mm of room between skin and device). Balloon broken? Enlarged tract or erosion? Obstruction? Granulation tissue?

References:

Elsevier Clinical Skills, *Feeding Tube: Balloon and Low-Profile Gastrostomy Removal and Reinsertion*; Clinical Review by Sandra L. Jacobs, RN, MS, CPNP, updated: November 2020; Retrieved: July 2021; https://point-of-care.elsevierperformancemanager.com/skills/723/quick-sheet?skillId=CCP_090#scrollToTop

Elsevier Clinical Skills, *Feeding Tubes: Gastrostomy Tube, Jejunostomy Tube, and Gastrojejunostomy Tube Care,* Clinical Review by Christie Heinzman, DNP, APRN-CNP; updated: November 2020; Retrieved: July 2021; https://point-of-care.elsevierperformancemanager.com/skills/820/quick-sheet?skillId=CCP_096

Verger, J.T., Lebet, R. M. [Eds.] [2008]. *AACN procedure manual for pediatric acute and critical care.* St. Louis: Saunders.

http://www.bcchildrens.ca/health-info/coping-support/tube-feeding

http://www.chop.edu/clinical-pathway/g-j-or-g-tube-displacement-clinical-pathway

Authors: Melinda Hartenstein, Danielle Sullivan, Emma Liceaga
Reviewed:
Updated: March 2017; July 2021