

**Royal Hospital for Women (RHW)
NEONATAL BUSINESS RULE
COVER SHEET**



Health
South Eastern Sydney
Local Health District

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SUMMARY	To provide education and instruction for care and use of gastrostomy and gastrostomy devices.

Gastrostomy and Gastrostomy Device Management

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1. BACKGROUND

A gastrostomy is a surgical opening where a feeding device is inserted, either into the stomach (G-tube) or bypasses the stomach (GJ-tube). This allows feeding the neonate directly into the stomach or lower gastric tract by bypassing the upper intestinal tract. The inserted devices serve a variety of different reasons. Most commonly used in neonates with long gap oesophageal atresia (OA), trachea-oesophageal fistula (TOF) or severe gastro-oesophageal reflux (GOR) syndrome.

2. RESPONSIBILITIES

Medical and Nursing Staff

3. PROCEDURE

3.1 Equipment

- Gastrostomy device - 12Fg (see Educational Notes):
 - balloon (Picture 1 and 7)
 - non-balloon
 - button
 - Foley catheter – size 8-10Fg determined by surgeon for low birthweight infants (Picture 9)
- Absorbent dressing – (Picture 2) OR available alternative
- Sterile water and cotton tip for cleaning
- ENFit adaptor for gastrostomy tubes (Picture 3)
- Feeding tube adaptor for Foley catheter (Picture 6)
- Feeding extension tube (Picture 4)
- Extension tube cap (Picture 5)
- Feeding syringes
- Button feeding access tube if button in situ (Picture 8)
- Basket for emergency equipment (spare device, accessories and dressing)



Picture 1



Picture 2



Picture 3

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Picture 4



Picture 5

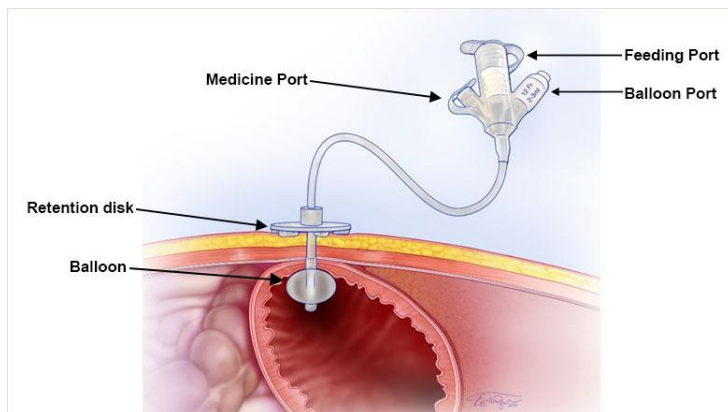


Picture 6

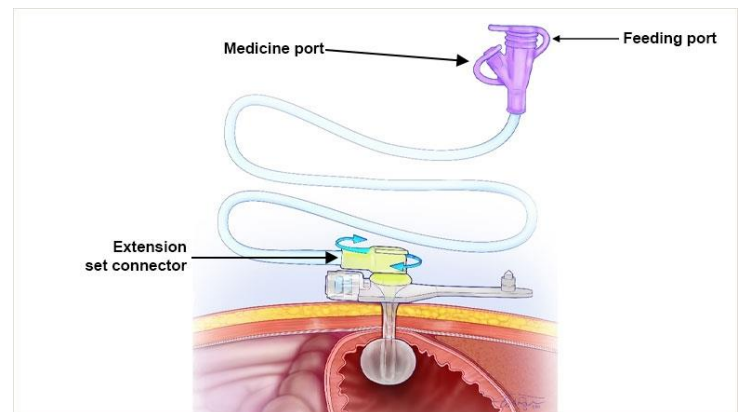
3.2 Clinical Practice

Initial management

- Contact Stoma CNC (Sydney Children's Hospital) to advise patient has received gastrostomy.
- Different devices can be used as tubes, including a balloon type, a non-balloon type and a 'low profile' type/button (see education notes).
- Initial post operative dressing around the gastrostomy site should remain insitu until advised by surgical team.
- Post insertion, tube to remain on free draining for a minimum of 24 hours.
 - Medications, however, can be given via the device during this time, ensuring that the tube is clamped for at least 1 hour post administration.
- Retention suture, if used, remains in place for 10 days and removed by surgeon.
- The length of the inserted tube and the amount of water in the balloon (if used) is documented in the Operation Report. (Picture 7 and 8)
 - The measurement and the balloon to be checked at start of each shift. To check balloon, remove residual volume and replace.



Picture 7



Picture 8



Picture 9

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Daily Care

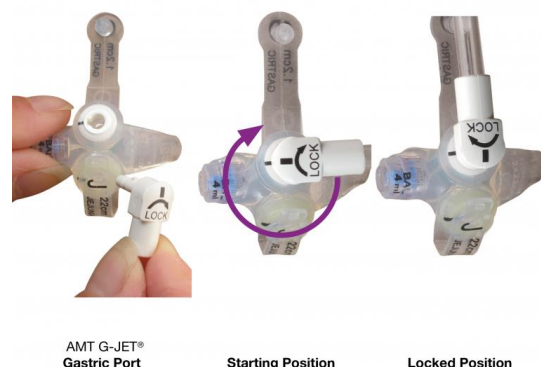
- Remove absorbent dressing and inspect the gastrostomy site for signs of redness, excoriation, leakage or granulation.
- Clean the site with sterile water and cotton tip.
- Replace thin absorbent dressing (Picture 2) to protect the skin around the gastrostomy from leaking gastric content.
- Change dressing daily or more frequently if exudates is excessive.
- Ensure there is no tension on the device to prevent accidental removal or discomfort.
- Rotate the gastrostomy button or tube in a full circle daily commencing 5 days after insertion, to ensure that the device does not adhere to the skin once the retention suture has been removed. The device should turn smoothly without causing harm to the surrounding skin.
- Once the device has been insitu for 4 weeks and completely closed, the patient may be bathed fully submerge.

Accessing tube

- Check the correct placement of the tube at the abdominal wall prior to accessing for enteral feeding or medication administration.
- No pH testing required for gastrostomy devices.
- Infants may benefit from being at a 20-30° angle, but feed in the most comfortable position.
- Infants may benefit from lying on their right side after feeds to facilitate gastric emptying.
- Flush the G-tube with 1-2mL of sterile water:
 - Every 6 hours to ensure patency
 - After giving medications to ensure that medication has reached the stomach
- Detach feeding extension tube from tube after completion of feeding. (Picture 4)
 - Flush extension tubing with water and air dry between feeds.
 - Replace the extension tube every 24 hours.
 - **Do not** leave the extension tube attached to tube device.

Gastrostomy button - connecting and disconnecting of the extension set (Picture 8)

- Open the port cover from the top of the device.
- Insert the extension set attachment included in the package by aligning the lock and key connector.



Picture 10

- Match the alignment line on the set with alignment line on the feeding tube.
- Lock the set into place by pushing in and turning the connector clockwise until you feel mild resistance. Do not turn connector past stop point.

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- Flush the device through the feeding tube with warmed sterile water to remove milk curds. If flushing does not resolve the issue, the device may need changing.
- To remove the feeding extension tube, rotate counter-clockwise until the black mark of the set aligns with the black line on the feeding tube. Remove the tube and cap the button with the attached port cover.

Venting

- Venting may be necessary to decompress the stomach and prevent abdominal distension.
- Connect the feeding extension tube to a 60mL syringe without the plunger and suspend syringe above the level of the stomach.

Accidental device removal

- Immediately contact the surgical registrar on call and/or the Stoma Therapy CNC if the gastrostomy device is accidentally pulled out or falls out (the device needs to be replaced within 4 hours to prevent closure of the tract).
- Check what type of gastrostomy device dislodged.
- If balloon device used, check balloon by inflating with water (outside of patient's abdomen). If the balloon remains intact, lubricate the device with lubricant jelly and reinsert the device gently into the stoma, monitoring the patient for pain.
NB. This is a temporising measure. The balloon should not be inflated once replaced and should not be used. Check with surgical registrar on call and/or the Stoma Therapy CNC before doing this.
- The gastric aspirate must be tested with pH strip ≤ 5.5 to ensure that the new tube is in the stomach.
- **The position of a reinserted device must be checked by radiology with contrast dye to ensure correct position.**
- Once position confirmed, reinflate the balloon with prescribed amount of water.
- If a non-balloon type button or tube gastrostomy used, insert a Foley catheter with the appropriate size corresponding to the size of the displaced gastrostomy to 3-5cm into the stoma.
- Ensure infant is swaddled and use sucrose and dummy as available for pain relief.

Spare equipment

- Spare equipment should be stored at baby's bedside in case of emergency dislodgement or removal of device.



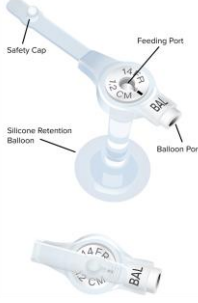
NOTE: To avoid oral aversion, it is advised that babies receive immuno-supportive oral care (ISOC) and the use of a dummy to create positive oral association.

3.3 Educational Notes

- A gastrostomy tube is often incorrectly referred to as PEG (percutaneous endoscopic gastrostomy) which is the procedure for inserting the feeding device into the stomach.
- Initially, a neonate will receive a percutaneous endoscopic gastrostomy tube (PEG). When the gastrostomy site is healed, the tube can be changed to a low-profile device or button. The exact period will be determined by the surgical team.

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Device	Features	Image
<p>Mic Percutaneous Endoscopic Gastrostomy (PEG) Tube</p>	<ul style="list-style-type: none"> • Standard length silicone tube. • Radiopaque strips. • An internal mushroom shaped retention holds it in the stomach. • An external ring flange (flat disk) to stabilise and prevent migration of the tube through the pylorus. • cm markings on the tube. • Placed and removed endoscopically and can last up to two years. 	
<p>Mic Gastrostomy Tube</p>	<ul style="list-style-type: none"> • Standard length silicone tube. • Radiopaque strips. • A small balloon filled with water holds it in place in the stomach. • An external ring flange (flat disk) to stabilise and prevent migration of the tube through the pylorus. • cm markings on the tube. • Placed via laparotomy or laparoscopically. 	
<p>Mic-Key Button</p>	<ul style="list-style-type: none"> • Silicone low-profile device. • Varying lengths from 1cm - 4cm. • A balloon filled with water holds it in place in the stomach. • Placed when the gastrostomy is formed or more commonly later once the gastrostomy tract has matured. • Comes with two special extension tubes (continuous and bolus) which are required for accessing the feeding port. 	

- Granulation tissue can develop around the tube which can cause bleeding, exudate and pain. Make sure the device is well secured and avoid tension.
- Contact the Stoma Therapy CNC (Sydney Children’s Hospital) if concerned.
- Monitor for signs of infection such as fever, tachycardia, increasing inflammation and cellulitis around site.
- Leakage around the tube can occur. Check the volume of water in the balloon that is documented in the surgical notes. Contact surgical team/ Stoma Therapy CNC for advice if no resolution found.

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3.4 Abbreviations

G-tube	Gastric tube	GOR	Gastro-oesophageal reflux
GJ-tube	Gastro-jejunal tube	ISOC	Immuno-supportive oral care
OA	Oesophageal atresia	PEG	Percutaneous endoscopic gastrostomy
TOF	Trachea-oesophageal fistula		

3.5 References

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4. RELATED BUSINESS RULES AND POLICY DOCUMENTS

- RHW NCC Medical CBR - Enteral Nutrition - formula preparations in Newborn Care Centre
- RHW NCC Medical CBR - Enteral Nutrition - human milk fortification - preparation
- RHW NCC Medical CBR - Enteral Nutrition - preterm infants 1000g and under
- RHW NCC Medical CBR - Enteral Nutrition - preterm infants 1001-1500g
- RHW NCC Medical CBR - Enteral Nutrition - preterm infants 1501-1800g
- RHW NCC Medical CBR - Enteral Nutrition - infants greater than 1800g
- RHW NCC Medical CBR - Enteral Nutrition - formula preparations in Newborn Care Centre
- RHW NCC Nursing CBR - Enteral Feed Warming - Calesca
- RHW NCC Nursing CBR - Intra-gastric Tube Insertion and Maintenance
- RHW NCC Nursing CBR - Silastic Tubes (Gastric and Transpyloric)
- RHW NCC Nursing CBR - Transpyloric Tube Placement and Management

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- RHW NCC Nursing CBR – Continuous enteral feeding
- MOH Policy directive - [Maternity - Breast Milk: Safe Management](#) PD2010_019

5. CULTURAL SUPPORT

- When clinical risks are identified for an Aboriginal family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal liaison officers, health workers or other culturally specific services.
- For a Culturally and Linguistically Diverse CALD family, notify the nominated cross-cultural health worker during Monday to Friday business hours.
- If the family is from a non-English speaking background, call the interpreter service: NSW Ministry of Health Policy Directive PD2017_044-Interpreters Standard Procedures for Working with Health Care Interpreters.

6. IMPLEMENTATION PLAN

This CBR will be distributed to all medical, nursing and midwifery staff via @health email. The CBR will be discussed at ward meetings, education and patient quality and safety meetings. Education will occur through in-services, open forum and local ward implementation strategies to address changes to practice. The staff is asked to respond to an email or sign an audit sheet in their clinical area to acknowledge they have read and understood the revised CBR. The CBR will be uploaded to the CBR tab on the intranet and staff are informed how to access.

7. RISK RATING

- Low

8. NATIONAL STANDARDS

- Standard 1 Clinical Governance
- Standard 2 Partnering with Consumers
- Standard 3 Preventing and Controlling Infections
- Standard 4 Medication Safety
- Standard 5 Comprehensive Care
- Standard 6 Communicating for Safety

9. REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
18/1/2024	1	E Deibe (ACNE), E Jozsa(CNS); Approved RHW NCC CBR Committee
12/02/2024		Endorsed out of session RHW Safety and Quality Committee