	Reference Number: UHB 189 **Version Number: 3** **Date of Next Review: January2022** **Previous Trust/LHB Reference Number: UHB**

Replacement Of Balloon Retained Gastrostomy (BRG) Procedure

Introduction and Aim

The aim of the procedure is to minimise patient risk and harm caused by a mis-placed balloon retained gastrostomy tube in line with patient safety and quality

Objectives

- To standardise the procedure for replacement of a balloon retained gastrostomy.
- To standardise the procedure to confirm the correct position of a balloon retained gastrostomy tube

Scope

This procedure applies to all qualified nursing and medical staff in all locations.

Equality Impact Assessment	An Equality Impact Assessment has been completed. The Equality Impact Assessment completed for the procedure found there to be no impact.
Documents to read alongside this Procedure	Consent to treatment
Approved by	Nutrition and Catering Steering Group
Accountable Executive or Clinical Board Director	Executive Director of Therapies
Author(s)	Adult Nutrition Support Team

Disclaimer

If the review date of this document has passed please ensure that the version you a using is the most up to date either by contacting the document author or the Governance Directorate.

Version Number	Date of Review Approved	Date Published	Summary of Amendments
1	21/12/2011	04/07/2013	
2	23/10/2015		Confirmation of correct position using gastric pH testing included in document
3	27/04/2019	20/05/2019	Minor amendments made to procedure information to comply with ANTT policy

Procedure for replacement of Balloon Retained Gastrostomy (BRG)

1. Introduction

The BRG tube is primarily used in an established stoma. The BRG tube usually requires replacement every 3 to 4 months but this will vary depending on the tube manufacturer's instructions. Occasionally these tubes can fall out prematurely and the stoma will close within 2-4 hours if the tube is not replaced. The Nutrition Support Team (NST) have devised an emergency kit and provide this for patients/carers in case this happens. The Nutrition Nurse Specialist (NNS) is available within normal working hours to replace the tube. However, if this occurs outside normal working hours, the patient may need to be admitted to the Medical Emergency Admissions Unit (MEAU), Emergency Unit (EU) or hospital. Nursing staff will be able to undertake this procedure and replace the BRG following training and achieving competence.

2. Aim

2.1 To standardise the procedure for the replacement of a BRG into an established stoma tract.
2.2 To facilitate elective removal and replacement of a BRG by trained professionals or carers.

3. Objectives

3.1 To reduce incidence of displaced BRG tubes requiring attendance at MEAU/EU and/or unnecessary admissions to hospital.
3.2 To reduce endoscopic/radiological procedures or surgical intervention due to closure of the stoma tract.
3.3 To reduce the potential risk of misplaced BRG tubes.

4. Responsibilities

The Nutrition Support Team (NST) is responsible for implementing the procedure. A small cohort of Specialist Doctors and Nurses who have been appropriately trained will be able to carry out this procedure. Individuals are responsible and accountable for their own actions when undertaking this clinical practice as part of their wider role.
All incidents of misplaced feeding tubes should be reported through the local risk management system. Tube defects should be reported to the manufacturer and the NST.

5. Training

The NST will provide training for a small cohort of trained Doctors and Nurses within agreed specialist areas in the replacement of Balloon Retained Gastrostomy tubes. A competency package is available. It is the responsibility of individual clinical staff to ensure that they are competent to undertake this procedure unsupervised and to also seek and update their training if they deem it to be necessary. Update training and competence assessment must be considered if staff have not undertaken this procedure after an extended period of time or does not feel competent to carry out the procedure. It is anticipated that a minimum of two supervised training opportunities will be required before an individual can undertake this procedure unsupervised. The NST will instruct the individual following two supervised insertions if additional training is required before they can practise unsupervised.

The NST will maintain a record of the individuals that have been trained and assessed.

6. Implementation

The NST has identified target areas for training (primary care, endoscopy, nurse practitioners, nursing home staff and hospital staff from identified areas). A training programme is available for staff to access. It is expected that following training and supervision, competency will be achieved within 6 months.

7. Further information

Further information is available from the Cardiff and Vale University Health Board Nutrition Support Teams.

8. Audit

Attendance at MEAU/EU and admissions to hospital due to displacement of a BRG balloon will be monitored.

9. Distribution

Head of District Nursing
Professional Lead for Clinical Diagnostics and Therapeutics
Head of Nutrition and Dietetics
Lead Clinician for Nutrition Support Team
Lead for medical directorate
Lead for surgical directorate

Procedure for replacement of Balloon Retained Gastrostomy (BRG)

Equipment required
Dressing pack
Sterile gloves x 2
Apron
Disposable sheet to protect patient clothing
BRG tube of appropriate size
10 ml sodium chloride 0.9% ampoule for cleaning
10 ml syringe x 2
5-10 ml sterile water for balloon (according to manufacturer guidance)
Water-based lubricant
60 ml Enteral syringe for checking gastric fluid
Fresh tap water for flush
pH indicator strips

1. Preparation for the procedure

- Explain procedure and obtain verbal informed consent under the guidance of the UHB consent policy. Refer to the Mental Capacity Act (2005) where consent cannot be obtained.
- Screen bed area and position the patient in the supine position.
- Assemble equipment and wash hands and dry according to UHB policy.
- Open dressing pack.
- Put on sterile gloves.
- Obtain a replacement BRG of the same size, check the expiry date and inspect the tube for any defects:
    - Check the integrity of the balloon by filling the balloon with 5-20 ml of sterile water according to manufacturer's guidance. Completely deflate the balloon following inspection.
    - If the device has a retention bolster, check this slides easily up and down the tube.
    - If appropriate, report any problems with the tube to the manufacturer, complete clinical incident form and obtain a new tube.

2. Removing the existing BRG

- Clean the existing BRG and stoma site with the gauze soaked in normal saline and dry thoroughly.
- Deflate the balloon completely by withdrawing the water, using a 5-20 ml syringe. Apply gentle pressure to the abdomen and pull the tube until it completely exits the stoma.
- Clean stoma site again.
- Remove sterile gloves. Decontaminate hands in accordance with the UHB handwashing procedure.

3. Replacing the BRG

- Apply sterile gloves.
- Lubricate the tip of the tube with the water-based lubricant. Do not use a petroleum-based lubricant as this may cause the tube to perish more quickly.
- Guide the tip of the new tube through the stoma and into the stomach until the entire balloon has passed through the stoma tract.
- Inflate the balloon with 5-20ml of sterile water. Never over-inflate the balloon or use air.

If it is a low profile BRG:

- Once the balloon has been inflated the device should fit comfortably so that it can be freely rotated, but not obviously loose or too tight.

If the BRG has a retention bolster:

- Once the balloon has been inflated, withdraw the tube until tension is felt from the balloon contacting the stomach wall. Slide the retention bolster down the shaft of the tube (towards the abdomen), allowing 1-2mm between the stoma and the bolster. *The retention bolster must not be sutured.*

4. Checking the position of the BRG

Aspirate gastric fluid from the gastrostomy tube using a 60 ml enteral syringe. Place the aspirate on the pH indicator strip and wait for 10 seconds. A reading of pH 5.5 or below indicates correct gastric placement of the BRG. If the tube insertion was difficult or if pH greater than 5.5 is obtained, consider referral for a contrast study to confirm the correct position of the BRG.

Once correct position has been confirmed flush the tube with freshly drawn tap water. However, sterile water must be used for critical care patients, patients with tracheostomies and immuno-compromised patients. Cooled boiled water may be used when at home depending on patient clinical condition.

5. Disposal of waste

- Remove gloves and apron and dispose of waste according to the UHB procedure.
- Wash hands according to UHB handwashing procedure.

6. Documenting the procedure.

This must include:

- Verbal consent from the patient/carer if appropriate.
- Time and date of the insertion.
- Type and size of tube, including batch number, or manufacturer's sticker.
- How correct gastric placement was confirmed; i.e. pH or contract study.

- The person undertaking the procedure.

Training and Assessment of Competence

In order to safely practice the skill of replacing a Balloon Retained Gastrostomy (BRG) feeding tube all experienced practitioners must update their practice every three years as follows:

1. The practitioner must refresh knowledge by reading the current UHB procedure

2. The practitioner must be assessed as competent by a Nutrition Nurse Specialist (NNS) through observation of practice.

The Assessment Process

Knowledge assessment: must be completed with an assessor (NNS)

Skills assessment: the practitioner must be assessed as level 3 by the nominated assessor to be able to practice unsupervised.

Level 1: Guidance and assessor intervention required, further training and supervision needed

Level 2: Minimal prompts required, requires further practice

Level 3: Performs competently and independently

A. Underpinning Knowledge		Tick when achieved
1.1	Discuss the process of obtaining consent in Adult patients and when a Best Interest's Decision is required	
1.2	Identify the relevant anatomy associated with BRG tube placement and the potential risk for tube misplacement	
1.3	Identify when it is an appropriate time to replace an BRG tube, and discuss when insertion should be delayed	
1.4	List possible contraindications for the insertion of BRG tubes	
1.5	Explain the clinical symptoms that would indicate that tube insertion should be abandoned and discuss what actions should be taken after a failed attempt	
1.6	Identify the method to confirm BRG tube position	
1.7	Explain the actions to be taken if aspirate cannot be obtained	
1.8	Explain how you document BRG replacement in the medical notes	

Date of Completion of Knowledge Assessment:	Outcome of Assessment	Assessor Signature	Practitioner Signature

Evidence of achievement and assessor feedback:

BRG Feeding Tube Replacement Update

Name of practitioner being assessed		**Ward / Department**	
Name of assessor		**Date of assessment**	

1. BRG tube Replacement		Achieved **Please tick**	
		Yes	No
1.1	Explains procedure and rationale correctly to the patient and seeks verbal informed consent or Best Interest's Decision		
1.2	Gathers required equipment and positions patient correctly		
1.3	Ensures has right size BRG tube to be replaced		
1.4	Washes hands and puts on apron and sterile gloves		
1.5	Examines tube – checks integrity and that the balloon inflates		
1.6	Ensures balloon is fully deflated before insertion		
1.7	Ensures correct cleaning of stoma site		
1.8	Inserts BRG into the stomach correctly		
1.9	Takes appropriate action if the patient shows signs of distress (may not be applicable)		
1.10	Maintains patient comfort and dignity throughout procedure		
BRG tube placement completed correctly: level achieved (1 – 3)			
Evidence for decision			
2. Confirmation of BRG tube position		Achieved **Please tick**	

		Yes	No
2.1	Demonstrates correct technique to aspirate BRG tube using a 60ml syringe		
2.2	Correctly identifies if the aspirate test confirms correct tube placement or if a contrast study is required		
Evidence for decision			
3. Following confirmation of position:		Achieved **Please tick**	
		Yes	No
3.1	Correctly secures the BRG tube with the retention bolster		
3.2	Correctly disposes of all waste as per UHB policy		
3.3	Documents consent, the procedure and method of confirming correct BRG tube position in the medical or nursing notes as appropriate		

Evidence for decision		