

**ENTERAL FEEDING VIA PEG TUBE OR MIC-KEY BUTTON
MANAGEMENT GUIDELINE**


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Approved By Name: Fionnuala O'Neill Title: Nurse Practice Coordinator	Signature: <i>Fionnuala O'Neill</i> Date: April 2018
Authorised By Name: Rachel Kenna Title: Director of Nursing	Signature: <i>Rachel Kenna</i> Date: April 2018
Author/s	Name: Anthea Bryce-Smith, Louise Patterson Title: Clinical Nurse Specialist (Nutrition) Name: Renagh Tomlinson Title: CNSp, GI Unit Name: Elaine Harris Title: Clinical Placement Coordinator
Location of Copies	On Hospital Intranet and locally in department

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1.0 Introduction

Balanced and adequate nutrition supports normal growth and development and healing. If the ability to eat or swallow is lost or the child is unable to tolerate food, enteral feeding can sustain life and nourish and increase body weight. Enteral feeding is also used to supplement a deficient food and fluid intake. When a gastrostomy is indicated as the route of choice, the type of tube and insertion method will depend on the clinical condition of the child and will be determined by the surgeon. There are many types of gastrostomy tubes available to accommodate individual needs for the purpose of this document they will be referred to as Percutaneous Endoscopic Gastrostomy (PEG) Tube and Mic-Key Button. The Corflo PEG tube and Mic-key Low Profile Feeding Tube are the mostly commonly used gastrostomy tubes at OLCHC

2.0 Definition of Guideline

Guidelines represent the written instructions, about how to ensure high quality services are delivered. Guidelines must be accurate, up to date, evidence-based, easy to understand, non-ambiguous and emphasise safety. When followed they should lead to the required standards of performance.

3.0 Definition / Terms

Enteral: within or by way of the intestine or gastrointestinal tract

Enteral Feeding: is the means of supplying nutrition to the gastrointestinal tract. The term is used to describe gastrostomy tube feeding

Gastrostomy: is a surgical opening - made through the abdominal wall into the stomach - through which a feeding tube can be passed via laparotomy/endoscopy, for either temporary or permanent delivery of enteral feed/medication/fluids directly into the stomach or drainage of gastric contents from the stomach.


Gastrostomy tube: (*may be called a G-tube*): Is a dedicated feeding gastrostomy tube that is inserted into the stomach via a gastrostomy tract. For the purpose of this document when the term 'Gastrostomy Tube' is used it refers to both PEG Tube and Mic-Key Button.

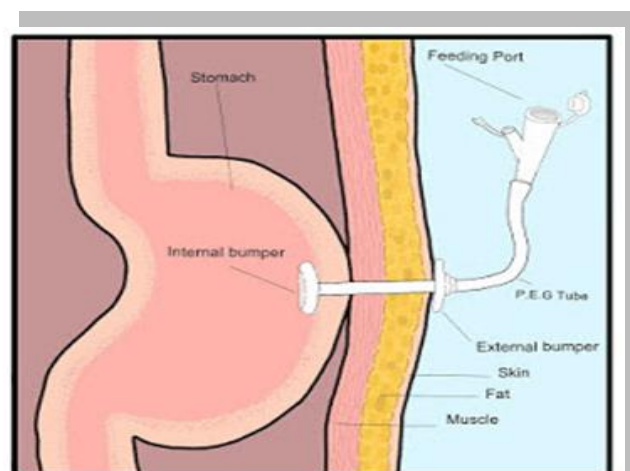
Granulation: Is the formation of lumpy, pink tissue containing new connective tissue, fibroblasts, white cells, collagen and capillaries that forms around the edges of a wound or site of infection during the earliest stage in the normal healing process.

French Gauge (Fr): Also called French Scale. It is used for denoting the size of catheters, feeding tubes and other tubular instruments (1Fr = 0.33mm approximately).

Hypergranulation, overgranulation or exuberant tissue or proud flesh: Is soft tissue that will not progress toward healing. Made up of granulation tissue and is in excess of that is required to replace the tissue deficit which often results in a raised mass (peduncle or 'proud' flesh) and inhibits migration of epithelial cells.

Percutaneous Endoscopic Gastrostomy (PEG): Is a procedure where a gastrostomy is performed by percutaneous puncture without the need for a laparotomy. It is performed under endoscopic guidance with gastric insufflation. A special tube is passed through the gastrostomy via the mouth/oesophagus for the purposes of feeding. Corflo PEG tube as illustrated in the diagram is currently used at OLCHC:

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Placement of a PEG Tube

Primary PEG Tube (also known as 1st Level Gastrostomy Tube (PEG Tube, Mollecot Tube/Foley Tube): For the purposes of the guidelines will be known as a 'Primary PEG Tube'.

Primary Mic-key Button' (Also known as 1st Level Gastrostomy Button): This is when the Mic-key Button is placed laparoscopically as the first gastrostomy tube. For the purposes of the guidelines will be known as a 'Primary Mic-key Button'.

Percutaneous Endoscopic Gastrostomy (PEG) Tube: This PEG Tube is directly inserted into the stomach using an endoscope (passing an endoscopy tube into the mouth, throat and oesophagus into the stomach. Occasionally a PEG Tube may have to be placed by an open surgical procedure. The principles of care post operatively are similar.


Secondary Mic-key Button (Also known as 2nd Level Gastrostomy Insertion): This is when the Mic-key Button is placed in an established gastrostomy tract (previously a PEG Tube was in place). For the purposes of the guidelines will be known as a 'Secondary Mic-key Button'

pH Indicator Paper/Strip: Paper/strip that measures the amount of acid in stomach contents.

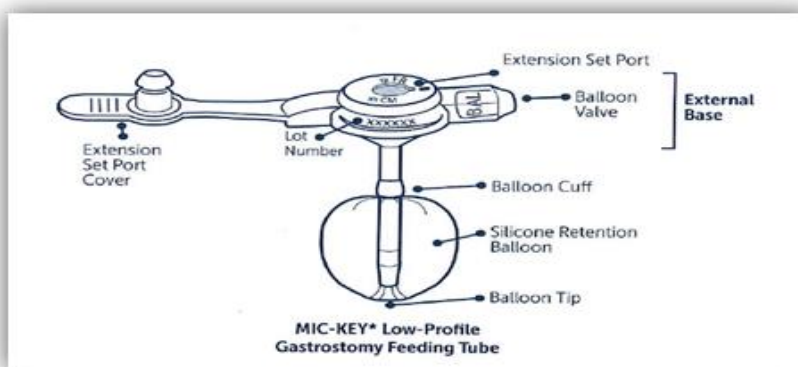
'MiniOne Balloon' Button: A 'MiniOne' Balloon button is another type of Mic-Key Low Profile Button Gastrostomy that is available in OLCCHC and manufactured by Applied Medical Technology. The Low Profile Button Gastrostomy used within OLCCHC have similar nursing care requirements however the recommended fill volumes may vary. It is essential to identify which type your patient has and always refer to the manufactures instructions for the recommended fill volumes when required (See Table 1 and Table 2 in Section 'Changing the water in the Mic-Key Button Retention Balloon (weekly)' for more details .

'Mic-key' Button (Formally known as Mic-Key Low Profile Button Gastrostomy): is a skin level gastrostomy device made of silicone. Although, it is commonly a second level gastrostomy (it can only be inserted once a tract has already been formed from a percutaneous endoscopic gastrostomy (PEG) or other gastrostomy), laparoscopic assisted gastrostomy button insertion can be performed as a first level gastrostomy.

For the purpose of this guideline a Mic-key Low Profile Button gastrostomy will be referred to as a 'Mic-Key Button'. The Mic-Key button is held in place internally by a balloon, which is inflated with water. It has an external low profile disc to maintain position. Routinely, the water in the Mic-key button is changed weekly and the Mic-key button is usually changed every 3-4 months. 'Mic-key' Button Low Profile Button Gastrostomy is

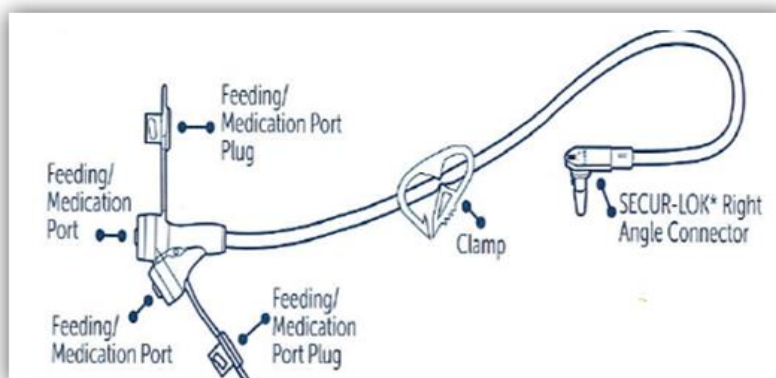
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manufactured by Halyard. A 'MiniOne' Balloon button is another type of Mic-Key Low Profile Button Gastrostomy that is available in OLCHC and manufactured by Applied Medical Technology. The Low Profile Button Gastrostomy used within OLCHC, have similar nursing care requirements, however the recommended fill volumes may vary. It is essential to identify which type your patient has and always refer to the manufactures instructions for the recommended fill volumes when required (See Table 1 and Table 2 in Section 'Changing the water in the Mic-Key Button Retention Balloon (weekly)' for more details .



Picture 1

Mic-Key Extension Set: Use for Feeding via the Mic-key Button as a Mic-key Button should never be accessed directly via a syringe. To attach the Mic-key Extension Set to the Mic-key Button align the black line on the SECUR-LOK right angle connector with the black line on the extension set port. Insert the connector into the Extension set port and rotate it ¼ turn clockwise. The extension can rotate and allows change of position during feeding.



Picture 2

4.0 Applicable to

All nursing staff employed by OLCHC that are involved in the management of enteral feeding via PEG Tubes or Mickey Buttons.

5.0 Objectives of the Guidelines

- To standardise the management of enteral feeding via PEG Tubes and Mic-key Buttons for children in OLCHC and ensure research based knowledge underpins nursing practice and to provide staff with recommendations and practical advice related to the care of children with feeding tubes.
- To ensure patient safely receive enteral feeding via PEG Tubes and Mic-Key Buttons

6.0 Indications for the insertion of a gastrostomy tube: *(This is not an exhaustive list)*

Neurological and neuromuscular disorders & conditions trauma, mucositis that may affect swallowing including or any condition where nasogastric feeding is not tolerated	Short Gut syndrome Organ failure (Liver, Renal, Heart)
Malignancies (head & neck tumors causing obstruction wide spectrum of other malignancies, cachexia)	Anorexia associated with chronic illness, e.g. malignancy, renal disease
Congenital abnormalities such as oesophageal / coanal atresia	Long term failure to thrive
Oesophageal injury	Cystic fibrosis
Cerebral palsy/ neurological impairment	Inborn errors of metabolism
Breathlessness during feeding (e.g. Congenital Heart Disease)	High nutritional intake needed (e.g. burns, trauma injuries, neural injury)

(Kazmiershi et al 2013, Heuschkel et al 2015)

Feeding via a gastrostomy tube is advocated when nutrition cannot be provided to the patient by mouth. Patient fall into one of two categories; those who are able to swallow, chew or suck and those who cannot consume an adequate number of calories because of an underlying condition. The decision to recommend the insertion of a gastrostomy tube should be based on a multidisciplinary team assessment and it should be clear from the outset whether the device is to be temporary or permanent. If it is to be temporary, goals should be set out to work towards oral intake and subsequent permanent removal of the device.

6.1 Potential benefits of Gastrostomy Tubes versus Nasogastric Tubes

Gastrostomy tube feeding is considered a suitable method for long term enteral feeding.


6.2 Gastrostomy Tube feeding has an advantage over Nasogastric Tube Feeding

- Gastrostomy tubes do not cause irritation to the nasal mucosa, the facial skin, or the oesophagus.
- Gastrostomy tubes reduce risk of tube displacement and therefore less risk of pulmonary aspiration, frequent reintubation and interruptions to feeding

6.3 Contraindication to the insertion of a Gastrostomy Tube: *(this is not an exhaustive list)*

Gross ascites	Gastroparesis
Severe obesity	Oesophageal / gastric varices and / or ulceration
Clotting abnormalities	Advanced liver disease
Portal Hypertension	Peritonitis (Mic-key website)

(Simpson 2002, Kazmierski 2013, Heuschkel et al 2015)

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6.4 Indication for a PEG Tube Change

- PEG tubes are long-lasting and can only be inserted under a general anesthetic. At OLCHC PEG tube changes are normally performed when they become problematic e.g. blocking of tube, accidental dislodgment or if there persistent infections at the stoma site. PEG Tubes can only be reinserted under a general anesthetic.
- Replacement of PEG tube can be considered once the gastrostomy tract has matured families are advised to link the Nutrition Support CNSp who can advise regarding this option.

6.5 Indications for changing a Primary PEG Tube to a Secondary Mic-key Button Insertion:


- Ideally a PEG tube will last for a minimum 2-3 years before it needs replacing. PEG tubes can deteriorate become fissured, porous and maybe colonised with organisms, leading them to be more prone to obstruction. They can be replaced under a general anaesthetic for a Secondary Gastrostomy such as a Mic-key button in advance of tube failure (Heuschkel et al 2015)
- Once the gastrostomy tract has healed, the PEG tube can be replaced with a Secondary gastrostomy tube. This device is known as a 'Low Profile Gastrostomy Button', such as a Mic-Key Button (the product used in OLCHC). This device lies flush to the skin on the outside. The 'Mic-key button' requires measurement of the formed track before the insertion of the new device. This is done with a graduated measuring device before selection of the correct length of device.
- Not all children are suitable for changing from a Primary PEG Tube to a Secondary gastrostomy device, as the parents/guardians and child must feel comfortable with learning to change the Mic-key Button 3-4 monthly at home.
- If a child's PEG tube dislodges and presents to the Emergency Department (ED) the most common practice is to replace the PEG tube with a secondary gastrostomy tube such as a Mic-key Button. If they wish to have a PEG Tube reinserted the child will be listed for theatre electively at a later date.

6.6 Indications for changing a PEG Tube to a PEG Tube

- The old PEG Tube becomes dislodged and parents/guardians prefer to continue with a PEG Tube after making an informed decision in consultation with the Nutrition Support CNSp that Mic-key button is not suitable.

6.7 Indications for changing a Mic-Key button gastrostomy

- Every three months as per manufacturer's recommendations. (The life of a Mickey Button varies according to manufacturers from between 3-6 months). However, circumstances such as gastric pH and fungal infection may affect the longevity of the balloon
- If the retention balloon bursts
- If the anti-reflux valve in feeding port is leaking
- If you are unable to deflate the retention balloon using a syringe
- If the child has lost or put on weight since last being measured


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7.0 Specific Pre and post-operative Nursing Care Instructions for the insertion of a Primary Gastrostomy Tube (PEG Tube, Mollecot Tube/Foley) include (This is not an exhaustive list):

(This information is available online for the child and their parents/guardians in leaflet format and should be distributed by the ward nurse caring for the child and their family).

Pre-operative preparation depends on the method of insertion and team carrying out procedure. The Nutritional Support CNSp may meet family pre-operatively and give appropriate written and verbal information about procedure and aftercare. They will show the child and family examples of the device. However, this Nutritional Support CNSp family consultation is not always possible due to timing of the procedure.

- Complete the Nursing Assessment Form
- Explain procedure to patient/parent/guardian
- Provide written & verbal information:- Parent Information Sheet (Available at: http://olchcnet.hse.ie/Nurse_Practice_Development_Unit/_Parent_Information_Leaflets/Peg_Tube_Feeding_.pdf)
- Provide specific skin preparation as per instructions
- Adhere to Correct Site Surgery Policy (OLCHC,2009)
- Contact the Nutrition Support CNSp to inform of them of intended surgery and complete a Blue Referral Form
- Contact the surgical team to perform the child's surgical admission & written consent
- Contact the Dietician to inform them of intended surgery, to organise Nutricia Enteral Feeding pump training (if applicable), negotiate a post operative feeding regime and complete a Blue Referral Form
- Involved the Play Specialist in the child's preparation
- Record the child's Public Health Nurse contact details in order to facilitate the ordering of enteral feeds when discharged home
- Inform parents/guardians of the teaching plan (Appendix 1) post operatively
- Specific post Op care for the insertion of Primary and Secondary PEG Tube are as per surgical team and nursing care plans
- Encourage active parental/child participation in Gastrostomy Tube care and management


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8.0 Complication associated with a Primary Gastrostomy Tube / Primary and Secondary Mic-key Button (with Nursing & Surgical Interventions)


COMPLICATIONS	NURSING & SURGICAL INTERVENTIONS
<p>Malposition / displacement of the Primary Gastrostomy (PEG) Tube / Button prior to tract maturation leading to Peritonitis</p> <p>(Displacement can be caused by accidently pulling the Gastrostomy Tube / Button)</p>	<p>Day 1-7 postoperative Primary Gastrostomy Tube: On return from theatre always check & document in the child's nursing care plan:-</p> <ul style="list-style-type: none"> the level of the external fixator device on the tube and the pH prior to first accessing the tube using aspirated stomach contents (pH must be between 0 - 5.0 in the presence of acidic gastric secretions). If there is any concern regarding the safe positioning of the gastrostomy tube, contact the Surgical Team / Nutrition Support CNSp <p>Can be caused by partially pulling the Gastrostomy Tube If malposition is a consideration:</p> <ul style="list-style-type: none"> Stop the feed until placement is confirmed by the surgical team Patient may need further investigations such as radiographic study with contrast through the Gastrostomy tube to out rule malposition or migration of the Gastrostomy tube all of which can lead to peritonitis
<p>Leakage around the stoma site</p>	<p>Day 1-7 postoperatively 1st Level Gastrostomy Tube:</p> <ul style="list-style-type: none"> Stop the feed immediately Contact Surgical Team and Nutritional Support CNSp as consideration must be given to the possibility that a peri-operative complication has occurred such as displacement or malposition of the tube Check the gastrostomy tube for damage or leakage <p>Day 8 postoperatively and onwards for Gastrostomy Tube / Day 2 onward for 2nd Level Mic-Key Button: Gastric secretions can leak around the gastrostomy stoma site and can result in skin excoriation and irritation. This can be minimised by:</p> <ul style="list-style-type: none"> Using of a barrier ointment (Recommended products include Ilex™ barrier ointment, or a zinc ointment) (If the stoma site is affected by candidiasis (thrush), do NOT use a zinc based product as this may worsen the infection? Suitable alternatives include Timodine Orabase™ or Coloplast™ paste) Administering a proton pump inhibitor medications (if prescribed) to reduce gastric acid production (Such as Ranitidine and/or Omeprazole) Applying appropriate dressing. If leakage and skin irritation persist, consider a Dermatology Review.

	<p>Constipation may cause the stomach to empty slower than normal check to ensure the child is not constipated.</p>
<p>Abdominal Distension secondary to bloating, slow gut motility or constipation</p>	<p>1st Line Management: The child's abdomen may become distended due to bloating, slow gut motility or constipation. This may lead to the external fixation device becoming too tight at the stoma site. If abdominal distension occurs, the abdomen can be decompressed by:</p> <ul style="list-style-type: none"> attaching an open barrel of a 60ml syringe to the end of the PEG Tube to allow the tube to vent and relieve any discomfort. <p>Preventative Measures: On return from theatre always check & document in the child's nursing care plan:</p> <ul style="list-style-type: none"> the level of the external fixation device ensuring it is not too loose or too tight ensure the abdomen is soft and not distended decompress the abdomen as stated above if required Contact the Surgical Team / Nutrition Support CNSp who may adjust the level of the external fixation device <p>Monitor the child's bowel motions, ensuring the child has regular soft bowel motions as slow gut motility/constipation</p>
<p>Tube displacement / accidental removal of the Primary PEG Tube / Secondary Mic-key Button</p>	<p>This can be caused by accidentally pulling the Gastrostomy Tube/Button</p> <p>Preventative Measures:</p> <ul style="list-style-type: none"> Ensure the Gastrostomy tube is kept <u>coiled</u> and <u>taped</u> well to prevent the tube dislodging. <p>If the Primary Gastrostomy Tube is accidentally displaced/removed:</p> <ul style="list-style-type: none"> Observe the child Observe the gastrostomy site for bleeding and / or leaking Apply direct pressure by placing a clean gauze dressing over the stoma to prevent stomach content leakage onto skin Contact the Surgical Team, If the tube dislodges the tract will close very quickly, a new tube need to be inserted as soon as possible (and may need to be performed under anaesthetic in theatre) If it is a mature gastrostomy tract, a Mic-Key Button may be used as the replacement tube. <p>If the Secondary Mic-key Button is accidentally displaced/removed:</p> <ul style="list-style-type: none"> Observe the child Observe the gastrostomy site for bleeding and / or leaking Apply direct pressure to the site with gauze If trained reinsert the spare Mic-key Button, Perform a pH check, and Contact the Surgical Team to review the Mic-key Button as Contrast Studies may be required <p>Time is vital as the tract may close quickly</p>

<p>Primary Mic-key button displacement / accidental removal</p>	<p>Day 1-7 Post operatively</p> <p>Preventative Measures:</p> <ul style="list-style-type: none"> • Ensure the Mic-Key Button is kept secure with sutures/steristrips (due to sutures/steristrips the button cannot be rotated) • The drainage bag should be taped securely <p><u>If the Primary Mic-key Button is accidentally displaced/removed within one month of initial placement (an inpatient in OLCHC):</u></p> <ul style="list-style-type: none"> • Observe the child • Observe the site for bleeding and / or leaking of stomach contents • Place a clean gauze dressing over the stoma to prevent stomach content leakage onto the skin • Contact the Surgical Team, • A new tube need to be inserted as soon as possible and a contrast via gastrostomy will be performed • A contrast via gastrostomy will be performed post insertion of new tube. <p><u>If the Primary Mic-key Button is accidentally displaced/removed within one month of initial placement (when at home):</u></p> <ul style="list-style-type: none"> • If discharged home and the Mic-key button dislodges less than 1 month post op, parents are instructed to put the button (or a spare one) back in, cover with a dressing and present to the nearest Emergency Department. In this situation a contrast is required to confirm the Mic-key button position (contrast can be done through the gastrostomy button)(Hassett 2017) <p><u>If the Primary Mic-key Button is accidentally displaced/removed one month after initial placement and onwards (when at home or an inpatient in OLCHC):</u></p> <ul style="list-style-type: none"> • pH check is sufficient unless there is a concern regarding the safe position of the Mic-key Button, • A contrast study is not required to confirm the position of the Mic-key Button unless there is a concern regarding the Mic-key button position)) (Hassett 2017) <p>Time is vital as the tract may close quickly</p>
<p>Stoma closure (may close within a few hours if the Peg Tube is accidentally removed)</p>	<ul style="list-style-type: none"> • Inform the Surgical Team immediately • Alternative tube insertion will be considered and parent/guardian education given
<p>Granulation tissue Proliferation of capillaries that manifest clinically as exuberant, red raw, beefy, painful or bleeding tissue extruding from inside of the stoma</p>	<p>Observe the stoma site for signs of exuberant, red raw, beefy, painful or bleeding tissue extruding from inside of the stoma Contact the Surgical Team</p> <p>First Line Management</p> <ul style="list-style-type: none"> • Apply mild potency topical steroid cream as prescribed to granulation tissue <p>Second Line Treatment:</p>

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	<ul style="list-style-type: none"> • Silver nitrate dressing may need to be applied (these should be prescribed) • Silver Nitrate Stick <p>There is no current treatment option to prevent regrowth (Hannah & John 2013)</p>
Tube Blockage	<p>Preventative Measures:</p> <ul style="list-style-type: none"> • Adequate tube flushing pre and post Gastrostomy Tube/Button usage • Appropriate preparation of medications can prevent Gastrostomy Tube/Button blocking. <p>If Gastrostomy Tube blockage occurs:</p> <ul style="list-style-type: none"> • Aspirate to try and remove any particulate matter. Do NOT use excessive force. • Administer 10-30ml cool boiled water (cold or warm), soda water or Sodium Bicarbonate 8.4% in 60ml syringe to unblock the tube. • Use push/pull action with a 60mls syringe to try and unblock the tube • Smaller gauge syringes may be used to try and unblock the tube (reasonable caution needs to be taken when applying pressure with a smaller gauge syringe to prevent any tube damage) • AVOID acidic solutions e.g. coke, cranberry juice or other carbonated drinks to avoid damage to tube. • Open the External Fixator Device of a PEG Tube and 'massage the 'blockage. • Contact Nutrition Support CNSp (Bleep: 8473/2) if you are unable to dislodge the blockage <p>If Mic-key Button blockage occurs:</p> <ul style="list-style-type: none"> • Care as per Gastrostomy Tube blockage • If unsuccessful, the Mic-key Button may be changed
<p>Peristomal (around the stoma) infection & Infection of stoma site</p> <p>Cellulitis always involves spreading diffuse erythema that is associated with a varying degree of swelling and pain under normal appearing skin.</p>	<p>Preventative Measures:</p> <p>Many Stoma sites are encrusted especially in the mornings.</p> <ul style="list-style-type: none"> • Clean the stoma site more frequently (2-3 times daily). • If indicated perform a swab of the stoma site. • Consider the need for a topical antibiotic with hydrocortisone. • Apply an absorbent dressing to keep dry e.g. Meplix border lite, Allewyn foam. • Complete 'Children's Wound Assessment Sheet' (OLCHC 2012).
Breakage or rupture of the tube	<ul style="list-style-type: none"> • Inform the Surgical Team. • Tape tubing to prevent leakage • Liaise with Nutrition Support CNSp / Surgical team to organise tube replacement
No aspirate from the Mic-key Button	<p>Avoid giving 'antacids' medication until after tube is changed (An infant/Child on gastric acid blocking medications e.g ranitidine, omeprazole may have a gastric pH of greater than 5.5)</p> <p>If there is no aspirate, do not use the Mic-key button.</p> <ul style="list-style-type: none"> • Sit the child up and aspirate again,


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	<ul style="list-style-type: none"> • If the child is allowed oral fluids offer a drink and aspirate again. • The Mic-key can be x-rayed or contrast studies performed to confirm its position, if a pH cannot be obtained. (The Mic-Key button has a radiopaque stripe on the tube. Do not use contrast inside the balloon) • Do not use tube if unsure of its position. Contact Surgeon for advice regarding further use.
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(Simpson 2002; Hannah & John 2015)

9.0 Guidelines for General PEG Tube/Mic-Key Button Care

EQUIPMENT	
Generic	
Sterile gauze	Gloves – non sterile
Sterile Water	pH Paper
Dressing (Mepilex Border lite ®)	Medication Prescription Sheet
Disposal bag	Medication
Additional Mic-Key Button Equipment:	
Correct size replacement button	Water-based Lubricant gel (K-Y Gel)
5 ml syringes X 1	10ml syringe X 1
Sterile water (Additional)	Extension Set

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ACTION	RATIONALE & REFERENCE
Prepare the child and environment	
<p>Explain to the child and parent/carer what will occur and why the procedure needs to be performed and discuss the procedure with the child</p> <p>Assess the child/infants condition prior to the procedure</p> <p>Prepare the environment and collect all equipment</p> <p>Decontaminate hands</p>	<p>To ensure that the patient understands the procedure and gives his/her valid consent (Trigg & Mohammed 2010, Dougherty and Lister 2015) and to gain verbal consent from the parents/carers (Hockenberry and Wilson 2013) in accordance with the Prevention of abuse to children while in the care of the hospital (Department of Children and Youth Affairs 2011)</p> <p>To ensure comfort (Trigg & Mohammed 2010)</p> <p>To ensure procedure is completed smoothly (Dougherty and Lister 2015)</p> <p>To prevent cross infection (HSE 2009, Infection Control Department 2013, Nurse Practice Committee 2013, OLCHC 2015a)</p>
Assess the stoma site (PEG Tube/Mic-Key Button)	
Apply non-sterile gloves (to remove old dressing if present)	To prevent cross infection (Nurse Practice Committee 2013)
<p>New Stoma Site: (Primary Gastrostomy Tube Day 1-7 post operatively / Secondary Mic-key Button Insertion, Day 1 post operatively)</p> <p>Stoma site assessment should be performed with vital signs monitoring in conjunction with PEWS, i.e. hourly for 4 hours and then should continue post procedure at least 4 hourly for the next 24 hours. Then twice per 24 and as required as an inpatient in OLCHC.</p> <p>Seek surgical review if any deviation from expected</p> <p>Assess the site for signs of –</p> <ul style="list-style-type: none"> • Bleeding and/or Haematoma <ul style="list-style-type: none"> ○ Moderate to large amount of fresh bleeding may indicated haemorrhage from puncture site or gastric wall (a small amount of bleeding is expected) • Skin and/or stoma infection:- <ul style="list-style-type: none"> ○ Redness ○ Increased pain ○ Excessive swelling ○ Unusual discharge or smell ○ Leakage (of gastric contents) 	Assessment must be performed to identify any improvements or deterioration in the condition of the child's stoma site, so the appropriate intervention and actions can be performed as necessary (Trigg & Mohammed 2010)

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New Stoma Site: (Primary Mic-key Button Day 1-7)

The stoma site cannot be viewed directly as the dressing applied in Theatre should be removed on Day 7 post operatively when the sutures are being removed. This may be performed sooner if clinically indicated (very moist and/or notable leakage on the dressing), if so contact the surgical team. Nutrition Support CNSp prior to removing the dressing

Surrounding site and dressing assessment should be performed with vital signs monitoring in conjunction with PEWS, i.e. hourly for 4 hours and then should continue post procedure at least 4 hourly for the next 24 hours. Then twice per 24 hours and as required as while an inpatient in OLCHC.

Seek surgical review if any deviation from the baseline assessment are observed

Assess the site surrounding the stoma and dressing for signs of-


- **Bleeding and/or Haematoma**
 - Moderate to large amount of fresh bleeding may indicated haemorrhage from puncture site or gastric wall (a small amount of bleeding is expected)
- **Skin surrounding the stoma and/or stoma infection:-**
 - Redness
 - Increased pain
 - Excessive swelling
 - Unusual discharge or smell
 - Leakage (of gastric contents)

Seek surgical review if any of these signs are present


Assessment must be performed to identify any improvements or deterioration in the condition of the child's stoma site, so the appropriate intervention and actions can be performed as necessary (Trigg & Mohammed 2010)

(Hassett, 2017)


It is normal to experience clear or coloured discharge from the site for the first 7-10 days post placement while the site is healing (Heuschkel et al 2015)


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<p>Established Stoma Site: (Secondary Mic-key Button: Day 2 onwards)</p> <p>Assess the insertion site daily</p> <p>Ideally no dressing is required</p> <p>Assess the general condition of stoma site and surrounding tissue before proceeding for:-</p> <ul style="list-style-type: none"> • redness • swelling • irritation • skin breakdown • leaking of stoma contents • discharge (colour, odour, volume) 	<p>To promote safety and prevent cross contamination. (Department of Health and Children 2010, OLCHC 2014)</p> <p>Assessment must be performed to identify any improvements or deterioration in the condition of the child's stoma site, so the appropriate intervention and actions can be performed as necessary (Trigg & Mohammed 2010)</p>
<p>Complete 'Children's Wound Assessment Tool' (2012) if the general condition of the stoma site requires intervention that deviates from regular care</p>	<p>To maintain accountability through accurate recording of nursing care (NHO 2009, Nursing and Midwifery Board of Ireland (NMBI) 2015a), and to prevent any duplication of treatment (Dougherty and Lister 2015)</p>
<p>Document the type of Enteral Feeding Device</p>	
<p>On Child/infants return from theatre or on admission to the hospital, record from the patient's medical notes/parent/guardian on admission in the appropriate nursing care plan the following gastrostomy tube/button information:-</p> <p>Primary Gastrostomy Tube Information:</p> <ul style="list-style-type: none"> • _____ Tube Size: ____Fr ____cm • Balloon Volume _____mls (If applicable) • Level of External Fixation Device: _____ (If applicable)(this may be difficult to read if it is an old Enteral feeding device as it may need to be opened and cleaned first) <p>Primary/Secondary Mic-key Information:</p> <ul style="list-style-type: none"> • Mic-Key button Size ____Fr ____cm • Balloon Volume _____Mls 	<p>To maintain accountability through accurate recording of nursing care (NHO 2009, NMBI 2015a) and to ensure that appropriate nursing care is provided for the appropriate type of enteral feeding device</p>
<p>Care of the Drainage Bag following the insertion of a Primary Mic-key Button</p>	
<p>Mic-key button is attached to the:</p> <ul style="list-style-type: none"> • feeding extension set (until sutures are removed) • and then the drainage bag <p>Observe the type, volume (mls), colour of the fluid</p>	<p>To ensure the contents of the stomach can drain freely into a drainage bag and prevent vomiting.</p> <p>Assessment must be performed to identify any improvements or deterioration in the condition of the child, so the appropriate intervention and actions can be performed as necessary (Trigg & Mohammed</p>

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<p>drained in the bag.</p> <p>Document in the patient Intake and Output Chart and related nursing documentation</p> <p>Report same to the Surgical Team</p> <p>Drainage bag is removed as per the Surgical Team (usually the morning post the insertion of the Primary Mic-key Button to facilitate feeding via the Mic-key button as per the Surgical Team and Dietician regime</p> <p>Feeding Extension set must be left insitu and well taped until Day 7 post operatively</p>	<p>2010)</p> <p>To maintain accountability through accurate recording of nursing care (NHO 2009, NMBI 2015a)</p> <p>To facilitate feeding</p> <p>To prevent any disturbance to the Mic-key button insertion site and promote the wound healing process (Dougherty and Lister 2015).</p>
<p>Perform a stoma swab (PEG Tube/Mic-Key Button)</p>	
<p>Prepare the environment and the child</p>	
<p>Decontaminate hands</p> <p>Before taking a wound swab, gently cleanse wound with water, either by irrigating or using sterile gauze. Do not use an antimicrobial cleansing solution as this may result in a false negative result</p> <p>Using a preselected sterile cotton wool swab, gently roll the swab around the stoma site</p> <p>Place the swab in the transport medium</p> <p>Transport immediately to laboratory</p> <p>(Refer to the Nursing Responsibilities in Requesting, Collection and transportation of Microbiology Specimens (Nurse Practice Committee 2012a) for the general principles of requesting, collecting and transportation of microbiology samples)</p> <p>Decontaminate hands again as above</p>	<p>To prevent cross infection (HSE 2009, Infection Control Department 2013, Nurse Practice Committee 2013, OLCHC 2014)</p> <p>Cleansing the wound prior to swabbing:</p> <ul style="list-style-type: none"> • Reduce contamination of swab from exudate • Removal of topical gels, etc which may have been used on the wound • Ensures accurate collection of organisms from wound (Bonham 2009, Cooper 2010, OLCHC 2014) <p>To successfully perform a swab, without causing harm (Trigg & Mohammed 2010, OLCHC 2014)</p> <p>As per the Nursing Responsibilities in Requesting, Collection and transportation of Microbiology Specimens (Nurse Practice Committee 2012a)</p> <p>To prevent cross infection (HSE 2009, Infection</p>

	Control Department 2013, Nurse Practice Committee 2013, OLCCHC 2014)
Cleansing (and Dressing (if applicable)) of the Stoma site and surrounding area (PEG Tube / Mic-Key Button)	
Clean the stoma site, surrounding area and related devices (External fixation device, clamp, tubing and Y-Adaptor)	To remove any exudate (NICE 2003)
Check and document for signs of infection including any erythema, skin break down, granulation tissue pain, swelling or offensive discharge	To maintain accountability through accurate recording of nursing care (NHO 2009, NMBI 2015a)
Primary Gastrostomy Tube (PEG, Mallecot Tube/Foley Gastrostomy Tube) Day 1-7 (postoperative insertion): <ul style="list-style-type: none"> Remove the old dressing daily Cleanse with Unisept sachets and gauze (daily) Cover with a new Mepilex Border lite® absorbent dressing <p>It is normal to experience clear or coloured discharge from the site for the first 7-10 days post placement while the site is healing (Heuschkel et al 2015)</p> Day 8 onwards: <ul style="list-style-type: none"> Ideally a stoma site and surrounding area requires no dressing Cleanse with sterile water and gauze (daily) Use absorbent dressings if required (heavy discharge / leakage) - Allevyn gentle border®, Mepilex border®, border lite® or Aquacel Foam® The PEG Tube must be taped securely to prevent constant movement  <p>(inserted with parental consent)</p>	<p>Ideally the dressing should only be in place for the first 7-10 days</p> <p>The use of a dressing will depend on the child's skin condition and will require individual assessment of the child's needs. To encourage wound healing (Dougherty and Lister 2015).</p> <p>To remove any exudate (NICE 2003)</p> <p>A dressing will absorb any discharge if present The use of a dressing will depend on the child's skin condition and will require individual assessment of the child's needs</p>

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Primary Mic-key Button (Day 1-7 postoperatively):

If the dressing applied in theatre (Gauze & tegaderm / IV3000) (10cmx12cm Ref 4008) is dry and intact:

- Leave untouched until the patient returns to OPD/ Day 7 post operatively. Ensure the dressing covers the Mic-key button and feeding extension set

This dressing should only be removed:

- Day 7 post operatively
- When very moist and/or notable leakage is evident,
- prior to discharge,

Change of Dressing before Day 7 post operatively

The dressing may be removed sooner if clinically indicated (very moist, notable leakage), if so contact the surgical team or Nutrition Support CNSp prior to removing the dressing). When performing a dressing change:


- Remove the old dressing,
- Use Aseptic Non Touch Technique Level 3
- Note the position of the sutures ensure they are secure (Day 7: remove the suture)
- Clean the stoma and surrounding area with Sterile Water / Unisept
- Allow to air dry
- If dressing changed before Day 7 post operatively,
 - apply a new dressing (soft and non-adhesive) (Gauze and Tegaderm/IV 3000),
 - ensuring it covers the mic-key button and feeding extension set (If dressing changed before Day 7 post operatively)
- If leakage is persistent advised to contact surgical team
- If dressing changed on Day 7 post operatively onwards,
 - ideally no dressing is required, if necessary a soft non-adhesive dressing can be applied
 - remove the suture
 - remove the extension feeding set

Assessment must be performed to identify any improvements or deterioration in the condition of the child's stoma site, so the appropriate intervention and actions can be performed as necessary (Trigg & Mohammed 2010)

(Hassett 2017)

The use of a dressing will depend on the child's skin condition and will require individual assessment of the child's needs

The use of a dressing will depend on the child's skin condition and will require individual assessment of the child's needs.

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<p>Ideally, no dressing is required after sutures are removed 1 week post operatively.</p>	
<p>Primary PEG Tube (Day 8 onwards) and Secondary Mic-Key Button (Day 2 onwards) Clean the stoma and surrounding area daily with sterile water and gauze.</p> <p>Remove any old dressing (if present), and discard in the appropriate disposable bag</p> <p>If old dressing is difficult to remove from the stoma site, apply gauze moistened with 0.9%w/v NaCl solution to the old dressing</p> <p>Pat dry</p> <p>Discard the used gauze</p> <p>Decontaminate hands again as above</p> <p>Document in the appropriate nursing care plan</p>	<p>To remove any excess cleaning fluid and create a dry medium that is less conducive for microbial contamination</p> <p>As per OLCHC Policies (OLCHC 2012, 2014)</p> <p>To soften the encrustation and facilitate its easy removal of the old dressing</p> <p>To prevent cross infection (HSE 2009, Infection Control Department 2013, Nurse Practice Committee 2013, OLCHC 2012, OLCHC 2014)</p> <p>To prevent cross infection (HSE 2009, Infection Control Department 2013, Nurse Practice Committee 2013, OLCHC 2014)</p> <p>To maintain accountability through accurate recording of nursing care (NHO 2009, NMBI 2015a), and to prevent any duplication of treatment (Dougherty and Lister 2015)</p>
<p style="text-align: center;">Rotate the PEG Tube/Mic-Key Button</p>	
<p>Primary PEG Tube (Day 0-2 postoperative insertion): DO NOT rotate the PEG Tube at this time</p> <p>Primary PEG Tube (Day 3 onwards postoperative insertion): Rotate 360° degrees and daily thereafter</p> <p>Primary Mic-key button (Day 1-7): DO NOT Rotate the Mic-Key Button until sutures are removed on Day 7 post operatively.</p> <p>Primary Mic-key button (Day 8 onwards): Rotate 360° degrees once the sutures/steristrips are</p>	<p>This time frame allows time for tract formation</p> <p>To prevent tube adhering to the sides of the stoma tract (Dougherty and Lister 2015) and allow tract to form</p> <p>This one week time frame allows time for tract formation. Sutures do not facilitate rotation of the Mic-key Button</p> <p>This one week time frame has facilitated tract</p>

<p>removed</p> <p>Secondary Mic-key Button: Rotate 360° degrees daily from day of insertion</p>	<p>formation</p> <p>Tract formation has developed with the Primary PEG Tube was insitu, therefore rotate can commence from day of Secondary Mic-key button insertion</p>
<p>Bathing and showering (PEG Tube/Mic-Key Button)</p>	
<p>Primary PEG Tube (Day 1-14 postoperative insertion): Bed baths only</p> <p>Primary PEG Tube (Day 15 onwards postoperative insertion) and Secondary Mic-Key Button (Day 2 onwards): Bath or shower as normal once the stoma has healed</p> <p>Primary Mic-key button (Day 1-7) Bed baths only while sutures are insitu.</p> <p>Primary Mic-key button (Day 8 onwards) Baths or showers are allowed after the sutures have been removed. Use soaps for sensitive skin in the bath water.</p> <p>Swimming is allowed 6 weeks after the insertion of a Primary PEG Tube and Primary Mic-key Button and after first change of Secondary Mic-key Button, however the stoma must not be infected/excoriated/sore. The stoma site and surrounding area must always be cleaned with cooled boiled water after swimming</p>	<p>To prevent any irritation of the stoma site from chlorine or seawater with swimming.</p>

Care of the External Fixation Device (PEG Tube)	
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Ensure the External Fixation Device is closed at all times.

This ensures the internal part of the tube is making contact with the stomach wall and acting as a plug to prevent stomach acid from reaching the skin

Leave the External Fixation Device in situ during the first 8-12 weeks after the PEG Tube is inserted.

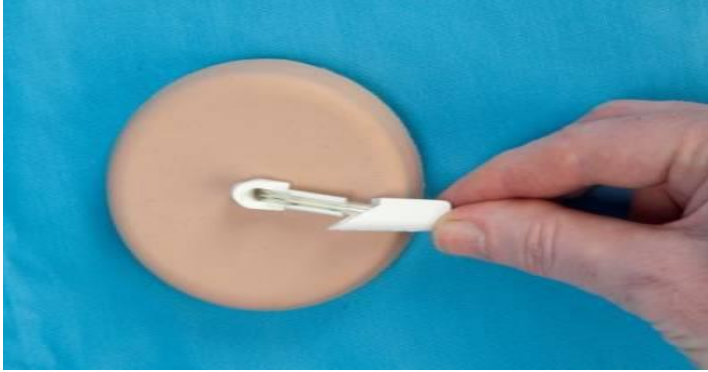
To allow time for tract formation


If the External Fixation Device is:

This may be due to localised swelling around the insertion site or to the child gaining weight

- Too tight on the child's abdomen, seek immediate advice from the Surgical Team or Nutrition Support CNSp as the device may need to be loosened.
- Too loose on the child's abdomen, contact the Surgical Team or Nutrition Support CNSp for advice.

This may be due to the child losing weight



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From 8-12 weeks after PEG Tube insertion, or as

As soon as the stoma is healed, the external fixator device can be cleaned weekly by:

- Clean the gastrostomy site and the external fixation plate/device
- Measure the length of tubing from the skin level to proximal end of the external fixation device prior to cleaning the device
- Release the fixation on the external fixation device to release the tubing from the fixation device
- Separate the external fixator device cover from the base (weekly)
- Check the position of the internal retention bolster weekly during the separation and cleaning of the external fixation device cover by using a gentle pull on the abdominal wall
- Move the fixation device away from the skin
- Clean the tubing, fixation and site
- Push 2-4 cm of the tube into stomach (to prevent buried bumper syndrome)
- Rotate the tube by turning it in your fingers
- Gently pull the tube back until resistance is felt
- Place the fixator device into normal position and anchor tubing in to the external fixation device
- Re-measure the tubing to ensure all the tube is proximal to the fixation device
- If it is shorter undo fixation device and pull back to desired length and fix
- Verify the position of the PEG ensure pH of the aspirate is between 0-5.0
- When the external Fixator is clipped in place you should be able to move it in & out about ¼ ("6mm)
- If it is too tight it will damage the skin.

Parents are taught from 8-12 weeks post insertion of the PEG tube by the Nutrition Support CNSp.

8-12 weeks post insertion of a PEG Tube, weekly adjustments and cleaning of Fixator should be carried out to prevent complications associated with a gastrostomy site

To allow further cleaning of this part of the tube.

To check the position of the internal retention bolster

To ensure the tube is positioned correctly in the stomach and not in the peritoneum which can result in serious or fatal complications (Howe et al. 2010, Trigg & Mohammed 2010)

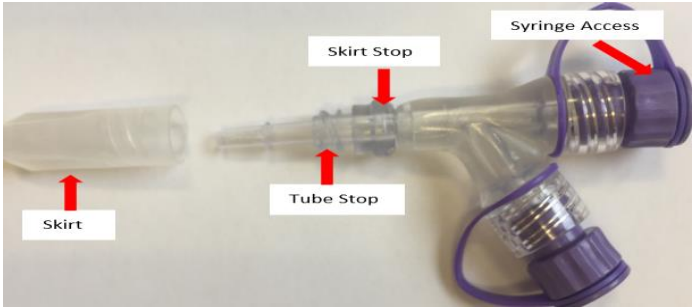
Care of the Y-Adaptor (PEG Tube)	
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Ensure the Y-Adaptor is secure to the PEG tube

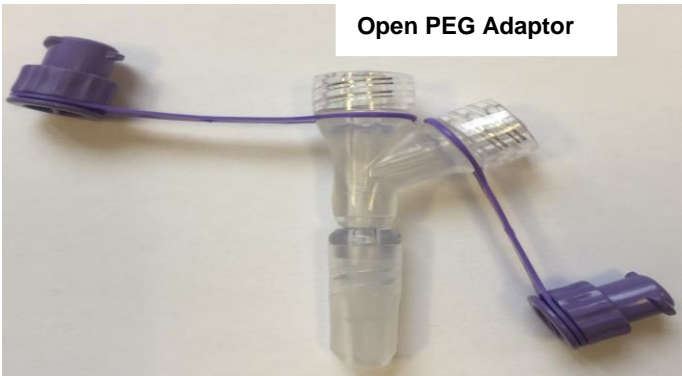
In the event of breakage or dislodgement of the Y-Adaptor, spare Y-Adaptor are stocked on wards & available from the Material Management Department and stored in the Store Room

Prescription for Y adaptor are included on the Supplies/Equipment Prescription on discharge

The Y-Adaptor allows the feeding equipment to be attached. The universal adapter at the end of all feeding sets can be attached directly to this Y-Adaptor, reducing the risk of the feeding set being accidentally disconnected.




PEG Adaptor Repair Kit with Enfit Connector
Ref: 50-6112



Changing the Y adaptor

- Disconnect the feed
- Untwist the threaded skirt from the new adaptor
- Put the PEG tube through the 'Skirt'. This 'Skirt' is vital for the correct functioning of both the PEG tube and the 'CORTPORT' Y adaptor
- Insert the Y adaptor in to the PEG tube, ensuring the tube goes over the 'Barb' and

To ensure the PEG tube does not leak

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<p>reaches the 'Tube Stop' at the bottom of the threaded portion</p> <ul style="list-style-type: none"> • Twist and push the 'Skirt' until the 'Skirt Stop' is reached, ensuring there is a tight fit <p>Ensure the Y-Adaptor is closed when not in use with a Y-Adaptor Stopper</p>	<p>Reduce the risk of choking</p> <p>To prevent leakage of feed or stomach contents from the PEG Tube</p>
<p>Care of the Extension Feeding Set (for Mic-key Button ONLY)</p>	
<p>Primary Mic-key Button (Day 1-7 post operatively): the Extension Feeding Set is attached to the Mic-key Button continuously for 7 days postoperatively until sutures are removed.</p> <p>Primary Mic-key Button (Day 8 onwards) and Secondary Mic-key Buttons:</p> <p>Clean with warm water and detergent after each use.</p> <p>Disinfect the inside and outside of the extension set at ward level after each use for children under 1 year or immunocompromised patients.</p> <p>Allow to air dry.</p> <p>Place the extension set in a storage container (labelled with the child's details at the child's bed space).</p> <p>Change the extension set weekly or more often if it needs to be.</p>	<p>To minimise manipulation of the Mic-key button and aid tract formation (Hassett 2017)</p> <p>To prevent blockage of tube (Payne-James 2001, NICE 2003)</p> <p>To adhere to standard infection control precautions and prevention of cross infection (HSE 2009)</p>

Verify the position of the PEG Tube/Mic-key Button	
PEG Tube Verification	
<p>Ensure pH of the PEG Tube aspirate is checked:</p> <ul style="list-style-type: none"> • prior to the PEG tube being first used post operatively (by nursing staff) • after opening and closing the external fixation device • if the PEG tube has been pulled accidentally • if there is any concern regarding the safe position of the PEG tube <p>(pH must be between 0-5.0 in the presence of acidic gastric secretions)</p> <p>Document that the position has been correctly confirmed in the child's nursing notes</p>	<p>To ensure the tube is positioned correctly in the stomach and not in the peritoneum which can result in serious or fatal complications (Howe et al. 2010, Trigg & Mohammed 2010)</p> <p>To maintain accountability through accurate recording of nursing care (NHO 2009, NMBI 2015a), and to prevent any duplication of treatment (Dougherty and Lister 2015)</p>
Mic-Key Button Verification	
<p>Ensure pH of the Mic-key Button aspirate is checked:</p> <ul style="list-style-type: none"> • Prior to the Primary Mic-key Button being first used post operatively (by nursing staff) • After changing the Mic-key button • If there is any concern regarding the safe position of the Mic-key Button <p>Attach extension feeding set to the extension set port Aspirate a small amount of stomach contents and test using an enfit syringe and pH paper.</p> <p>(pH reading must be between 0-5 in the presence of acidic gastric secretions).</p>	<p>To ensure the Mic-key button is in the correct position (Trigg & Mohammed 2010, Bunford, 2010) Do not use the Mic-key button until it has been established that it is in the correct position (Trigg & Mohammed 2010, Dougherty and Lister 2015, Glasper et al. 2010)</p> <p>A pH reading of 0-5 indicates the contact with stomach contents and this verifies that the tube is in the stomach (Bunford 2010)</p>
Changing the water in the Mic-Key Button Retention Balloon (weekly)	
<p>Secondary Mickey Button: The balloon holds the feeding tube in place. Check the volume of the water in the balloon once a week. Nurses at ward/unit level, the Nutritional Support CNSp and caregivers may change (the water in) a Mic-Key button once he/she has received instruction, on how to perform this procedure, from the Nutrition Support CNSp (or other appropriate individual), thus ensuring that they work within the Code of Professional Conduct and Scope of Practice (NMBI 2014; 2015b). Routinely, the water in the Mic-key button is changed weekly and the Mic-key button is usually changed every 3-4 months.</p> <p>Primary Mic-key Button: Nutrition Support CNSp will review the patient 1 month post discharge to</p>	

commence training for the parents/guardian on how to replace Mic-key button & demonstrate how to change water in the balloon

Verify the Fill Volume of the Retention Balloon

Fill a 10ml luer slip syringe with recommended volume of sterile water (usually 5mls for 12 fr Mic-key Button)

Hold the Mic-key Button firmly in place while performing this procedure

Attach an empty 10ml syringe to balloon port and withdraw all the water from inside the balloon.

Attach syringe containing appropriate volume of water to balloon port and insert water into balloon.

Do not insert air into the balloon

If the balloon will not deflate:

- Clean balloon port with a cotton bud and water and try to deflate the balloon again.
- If the balloon does not deflate, contact the Nutritional Support CNSp / Surgeon

Refer to patient records for recommended fill volume

To have the filled syringe ready for use. Never fill the balloon with more than 10mls as this will exceed the manufacturers recommendations (5mls of 12Fr sizes) of sterile or distilled water)

Mic-key Button Table 1		
Size	Recommended Fill Volume	Max fill Volume
12fr	3mls	5mls
14fr	5mls	10mls
16fr	5mls	10mls
18fr	5mls	10mls
20fr	5mls	10mls
24fr	5mls	10mls

Table 1: Mic-key Button (Halyard Mickey G feeding tube booklet:pg.4
https://www.halyardhealth.com/media/1663/r8201b_mic-key_care_guide_english.pdf)


MiniOne Balloon Button Table 2			
Size	Minimum Fill Volume	Recommended Fill Volume	Max fill Volume
12fr	2ml	2.5ml	3ml
14fr	3ml	4ml	5ml
16fr	4ml	5ml	8ml
18fr	6ml	6ml	10ml
20fr	7ml	10ml	15ml
24fr	7ml	10ml	15ml

Table 2: MiniOne Balloon Button (Applied medical Technology 2017)

To ensure button is not dislodged while balloon is empty

To ensure all water has been removed from Balloon
 To ensure correct amount of water is in the balloon
 Air will rapidly migrate out of the balloon and the button may become dislodged.

Food, skin cells, creams and powder can become lodged in the valve recess. The valve recess must be clean in order to function properly (Kimberly-Clarke 2005)

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<p>If there is concern regarding the safe positioning of the feeding tube following volume check, obtain a gastric aspirate to check pH</p> <p>Primary Mic-key Button: Water in the Mic-key Button is not checked until after the first change of mic-key button (1 month post operatively) unless instructed by the surgical team or Nutritional Support CNSp</p>	<p>To ensure the Mic-key button is in the correct position (Trigg & Mohammed 2010, Bunford, 2010)</p>
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Changing the Mic-Key Button


Nurses at ward/unit level, the Nutritional Support Nurse and caregivers may change (a Mic-Key button once he/she has received instruction, on how to perform this procedure and supervised by the Nutrition Support Nurse Specialist (or other appropriate individual), thus ensuring that they work within the Code of Professional Conduct and Scope of Practice (NMBI 2014; 2015b). Routinely, the water in the Mic-key button is changed weekly and the Mic-key button is usually changed every 3-4 months.

Primary Mic-key Button: Nutrition Support CNSp will see 1 month post discharge to commence training on how to replace Mic-key button & demonstrate how to change water in the balloon

<p>Decontaminate hands</p> <p>Prepare the environment and collect all equipment</p> <p>Remove the new Mic-key button from the package Check the integrity of the new Mic-key button by inflating the balloon of the new Mic-key button using a leur slip syringe with Sterile Water (cooled boiled at Home) using the recommended fill volume on the balloon port, then deflate balloon</p> <p>Attach an empty leur slip syringe to the balloon valve of the old Mic-Key button that is in the patient's stomach.</p> <p>Deflate the balloon of the Old Mic-key button gently ensuring all the water is removed</p> <p>Gently remove the Old Mic-Key button from the patients stomach</p> <p>Lubricate the tip of the New Mic-key button with gel</p> <p>Gently guide the new Mic-key button into the stoma, inserting the new Mic-key button all the way in until</p>	<p>To prevent cross infection (HSE 2009, Infection Control Department 2013, Nurse Practice Committee 2013, OLCCH 2015a)</p> <p>To ensure procedure is completed smoothly (Dougherty and Lister 2015)</p> <p>To check the integrity of the new Mic-key button has a uniform shape and that there are no leaks or defaults evident in the new Mic-key button (Kimberly Clarke 2005)</p> <p>To facilitate the removal of the old Mic-key button</p> <p>To facilitate the smooth and easy insertion of the new Mic-key button (Kimberly Clarke 2005)</p>
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<p>the feeding tube is flat against the skin</p> <p>Hold the tube in place and attach a leur slip syringe to the balloon valve inflate the balloon of Mic-key button with sterile water using the recommended fill volume on the balloon port</p> <p>Wipe way fluid or lubricant from the Mic-key button and stoma</p> <p>Attach an extension set to the extension set port</p> <p>Aspirate 1-2ml of stomach content, close the clamp, as indicated above in Section (Verify the location of the Mic-Key Button)</p> <p>Detach the enfit syringe and close the cap</p> <p>Decontaminate hands</p> <p>Document the pH test level child's nursing notes:</p>	<p>The balloon holds the feeding tube in place.</p> <p>The pH aspirate of the stomach content must be checked to determine that the Mickey Button is positioned correctly in the stomach (Trigg& Mohammad 2010).</p> <p>To prevent cross infection (HSE 2009, Infection Control Department 2013, Nurse Practice Committee 2013, OLCHC 2015a)</p> <p>To maintain a clear record of the child's Mickey Button pH test level prior to (NPSA 2011b)</p>
Post Changing Mic-Key Button	
<p>Dispose of all equipment appropriately</p> <p>Decontaminate hands again as above</p> <p>Ensure the child is reassured and comfortable after the procedure.</p> <p>Educate the child/parent(s)/carer(s) about the procedure, if appropriate. Due Consideration should be given for the time taken to learn how to manage the tube, determine the tube feeding regimen and tolerance and arrange access to appropriate equipment & supplies.</p> <p>Evaluate and document (time and date) the procedure in the childs nursing care plan other hospital and/or legally required documents:</p> <ul style="list-style-type: none"> All care given 	<p>To promote safety and prevent cross contamination. (Department of Health and Children 2010, OLCHC 2014)</p> <p>To prevent cross infection (HSE 2009, Infection Control Department 2013, Nurse Practice Committee 2013, OLCHC 2015a)</p> <p>To help maintain a trusting relationship between the child and nurse (Hockenberry and Wilson 2013)</p> <p>Patient/Parental education plays a key role in improving compliance to treatment and patient outcomes (Kowing & Kester 2007) and promotes family centred care approach to care (Casey 1995)</p> <p>To maintain accountability through accurate recording of nursing care (NHO 2009, NMBI 2015a), and to prevent any duplication of treatment (Dougherty and Lister 2015)</p>

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- Condition of the stoma and surrounding areas
- Amount of water in the retention balloon (Mic-Key Button)
- Record and report any abnormalities.
- Record Gastrostomy Tube:
 - size,
 - Reference number and
 - LOT number

10.0 Administering medications via a PEG Tube / Mic-Key Button

Refer to OLCHC's Nursing Policy on Medication Management (OLCHC 2016) and Medication Policy (OLCHC 2017c) and Guidelines on the administration of Medication via Enteral Feeding Tube OLCHC (2015) for further information:

http://olchcnet.hse.ie/Medicines_Information_/Medication_SOPs_and_Guidelines_/Enteral_Feeding_-_Administration_of_Medicines_via_EFTs.pdf

10.1 Administering feeds via a PEG Tube/Mic-Key Button

Enteral feeding is the means of supplying nutrition to the gastrointestinal tract. The term is used to describe gastrostomy tube feeding (MacQueen et al 2012). Paediatric literature remains cautious on how rapid to introduce feeds following the insertion of a PEG Tube. At OLCHC the operating surgeon will recommend how soon feeds can be reintroduced. The dietician will review and recommend an individual regime for each child. Introducing feeds can vary with each surgeon from 4-24 hours post insertion of PEG.

The type of feed used and the rate of introduction will at least in part depend on whether the child is receiving pre-operative nutritional supplementing by a nasogastric tube. If this was the case and the feeds are well tolerated then rapidly increasing the rate of the same feed maybe possible (Heuschkel 2015).

10.2 Purpose of administering enteral feeds via Gastrostomy (PEG Tube / Mic-Key Button)


- To standardise the administration of enteral feeds via gastrostomy Tube
- To ensure patient safely receives prescribed enteral feeds via Gastrostomy Tube
- To ensure research based knowledge underpins nursing practice

10.3 Complications associated with children receiving enteral feeds via Gastrostomy Tube (Peg Tube / Mic-Key Button)

- Tube Blockage

10.4 Indication associated with administration of enteral feeds via Gastrostomy Tube (PEG Tube / Mic-Key Button)

- Children with gastrostomy tube (PEG Tube/Mic-Key Button) who tolerate enteral feeds but are not able to receive it by mouth

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10.5 Contraindications associated with the administration of enteral feeds via Gastrostomy Tube (PEG Tube / Mic-Key Button)

- If the enteral tube is on free drainage
- If the child required a full stomach aspiration prior to a procedure, feed should not be administered prior to the procedure
- If the child is fasting

(Dougherty and Lister 2015, MacQueen et al 2012)

10.6 Guidelines for administering enteral feeds via Gastrostomy Tubes (PEG Tube/Mic-Key Button)


EQUIPMENT	
Generic	
pH Paper (0.5 gradients)	Dash 3 Enfit Syringes (to flush the gastrostomy tube pre and post the feed/medication – no less than 10ml size syringes)
Enteral Medication	Dash 3 Enfit Syringe (empty, to verify the gastrostomy tube opposition)
Medication Prescription Sheet	Sterile Water (for flushes)
Gloves – non sterile	Enteral Syringes (to administer the medication- no less than 10ml size syringes)

Additional Mic-Key Button Equipment:


- Extension Feeding Set (for Mickey Button only)

ACTION	RATIONALE & REFERENCE
<p>Prepare the child and environment</p>	
<p>As above</p>	
<p>Prepare the feed and / or medication</p>	
<p>Prepare the environment and collect the required equipment</p> <p>Decontaminate your hands and the child's hands if they are assisting in the procedure</p> <p>Apply gloves and a disposable apron if appropriate</p> <p>Only DASH 3 EnFit syringes should be used for enteral tubes (PEG Tubes/Mic-Key Buttons)</p> <p>Prepare the Medication</p> <p>All medications should be prepared and drawn up according to the OLCHC Medicines Policy (OLCHC) and the child prescription sheet and pharmacy specific direction for reconstitution if required</p> <p>Check the correct medication dose is prepared as prescribe</p> <p>Prepare the DASH 3 EnFit syringe flushes for pre and post of the administration of feeds/medications by drawing up 20ml of sterile (cool boiled at home) water in DASH 3 EnFit syringes (smaller volumes used in certain circumstances: child flush restricted & to avoid fluid overload)</p> <p>Ensure the child has a dietician's order sheet and that it is up to date</p> <p>Prepare the feed</p> <p>Ensure it is the correct volume and type of feed for the correct patient</p>	<p>To ensure the medication can be adequately for dispensing and administering medication (Barron and Hollywood 2010, OLCHC 2016, 2017c)</p> <p>To adhere to standard infection control precautions and prevention of cross infection (HSE 2009)</p> <p>To prevent bacterial contamination of feed (HSE 2009, OLCHC 2017a, OLCHC 2017b, Rowley 2011)</p> <p>DASH 3 EnFit syringes are incompatible with intravenous lines, minimising the risk of a medication being given via the wrong route (Bridge 2007, Cunningham and Best 2013)</p> <p>To minimise the risk of an incorrect medication dose being administered (Crawford 2012, OLCHC 2016, 2017c).</p> <p>Refer to Guidelines on the administration of Medication via Enteral Feeding Tube OLCHC (2017c)</p> <p>To reduce the risk of harm to the child (Barron and Hollywood 2012), as per ABA Medication Guidelines (2007) and OLCHC 2016, 2017c). To avoid problems such as medication instability, interactions with enteral nutrition, absorption, tube blockage and low recovery when administered (Zhu and Zhou 2013)</p> <p>To prevent the enteral tube becoming blocked (NICE 2012, Heuschkel 2015)</p> <p>To ensure correct feed is administered in adherence with the Analysis Sheet from the Electronic Dietetic</p>


<p>Continuous Feed:</p> <ul style="list-style-type: none"> • Insert the feeding set into the feeding pump • Press 'Fill Set' button on the feeding set <p>Bolus Feed (using a bolus feeding set):</p> <ul style="list-style-type: none"> • Prime the set and expel any air. <p>Prepare the child</p> <p>Position the child comfortably, with their head above the level of the stomach, at an angle of approximately 30 degrees.</p> <p>Age/developmentally appropriate distraction techniques should be used during the medication administration</p> <p>Reassure the child continuously if required</p>	<p>Manager Computer Programme used within OLCHC</p> <p>In adherence with the Guidelines on Hang Times for Enteral Feeding (OLCHC 2011)</p> <p>To ensure the child is not given any excess air in the feed which may cause abdominal discomfort.</p> <p>To ensure the child receives the prescribed amount of feed (Trigg & Mohammed 2010)</p> <p>To ensure the child is not given any excess air</p> <p>To reduce the risk of regurgitation and prevent aspiration (Trigg & Mohammed 2010)</p> <p>To minimise any distress caused by having to stay in one place during the procedure (Barron and Hollywood 2010)</p>
<p align="center">Administering the enteral feed / medication via a PEG Tube / Mic-Key Button</p>	
<p>Primary gastrostomy tube/button post operatively</p> <p>Prior to first use of the tube/ button, aspirate 1-2ml of stomach content, close the clamp, as indicated above in Section (Verify the location of the PEG Tube/Mic-Key Button)</p> <p>Detach the DASH 3 EnFit syringe and close the cap</p> <p>Verify the location of the gastrostomy tube/button (if applicable) with pH Paper</p> <p>Expose the end port of the PEG Tube.</p> <p>Secondary Mickey Button (Day 2 onwards) or Primary Mic-key Button (Day 8 onwards):</p> <p>Connect the Feeding Extension Set to the Mickey Button - to attach align the black line on the SECUR-LOK right angle connector with the black line on the extension set port. Insert the connector into the Extension set port and rotate it ¼ turn clockwise. The extension can rotate and allows change of position</p>	<p>The pH aspirate of the stomach content must be checked to determine that the PEG Tube/Mickey Button is positioned correctly in the stomach (Trigg & Mohammad 2010).</p> <p>pH less than or equal to 5.5 determines that the end of the PEG Tube/Mickey Button is in the stomach</p> <p>To facilitate access to the end Port of the PEG Tube</p> <p>To minimise manipulation of the Mic-key button and aid tract formation (Hassett 2017) (Kimberly Clarke 2005)</p>

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<p>during feeding.</p> <p>Primary Mic-key Button: the Extension Feeding Set is attached to the Mic-key Button continuously for 7 days postoperatively until sutures are removed.</p> <p>Clamp the PEG Tube/ Extension Feeding Set before opening the cap to inserting or removing enteral syringes</p> <p>Open the cap</p> <p>Attach the DASH 3 EnFit syringe with the sterile/cool boiled water flush</p> <p>Administer the sterile/cool boiled water flush</p> <p>Detach the empty DASH 3 EnFit syringe for flushing the tube</p> <p>Attach the medication syringe FLUSH the tube thoroughly after each medicine is administered.</p> <p>Administer the enterally prescribed medication(s)</p> <p>Detach the empty DASH 3 EnFit syringe for medication(s)</p> <p>Attach a DASH 3 EnFit syringe with sterile/cool boiled water</p> <p>Administer the sterile/cool boiled water flush</p> <p>Detach the empty DASH 3 EnFit syringe.</p> <p>Continuous Feed:</p> <ul style="list-style-type: none"> • Connect feeding set to the appropriate feeding port on the gastrostomy tube • Start pump at prescribed rate • Unclamp gastrostomy clamp • Unclamp giving set. 	<p>To prevent reflux of stomach content up the tube (Bowden and Greenberg 2011)</p> <p>To allow the DASH 3 EnFit syringe to be attached to the PEG Tube /extension set</p> <p>To attach the DASH 3 EnFit syringe with the flush</p> <p>To ensure the PEG Tube/Mickey Button is patent prior to use (NICE 2012)</p> <p>To administer the medication in accordance with the OLCHC Medication Policy (2016) and ABA (2007) Refer to Guidelines On the administration of Medication via Enteral Feeding Tube OLCHC (OLCHC 2015)</p> <p>To ensure the PEG Tube/Mickey Button is patent after use, promote the complete delivery of the medication and prevent it lodging in the tube (NICE 2012)</p>
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<p>Bolus feed (using a bolus feeding set):</p> <ul style="list-style-type: none"> • Connect feeding set to the appropriate feeding port on the gastrostomy tube • Holding the set above the level of the child's stomach • Unclamp gastrostomy clamp and <p>Unclamp the gastrostomy clamp/Extension Feeding. Set clamp and giving set clamp, if applicable</p> <p>Allow feed to be administered over 15-30 minutes, as this is the same length of time it would normally take a child to feed orally (or at a rate that is indicated by the child's ability to tolerate the feed)</p> <p>The flow is determined by gravity. Do not use plunger of syringe to administer feed. If feed is too thick for gravity, administer via a feeding pump.</p> <p>While the feed is being administered allow:</p> <ul style="list-style-type: none"> • The infant to suck a soother • The child can play with feeding utensils / feed at the dinner table <p>Top up barrel of syringe / feeding set as it begins to empty</p> <p>Continue this procedure until the full feed is administered</p> <p>Observe child during the feed for:</p> <ul style="list-style-type: none"> • Signs of discomfort e.g. heaving or retching. • Signs of breathing difficulties and / or colour changes while administering the feed. <p>When feed is complete:</p> <p>Clamp child's gastrostomy before removing feeding</p>	<p>In adherence with the Guidelines on hang times for Enteral Feeding (OLCHC 2011)</p> <p>To ensure the child is not given any excess air in the feed which may cause abdominal discomfort.</p> <p>To ensure the child receives the prescribed amount of feed (Trigg & Mohammed 2010).</p> <p>To ensure the child is not given any excess air.</p> <p>Administering a feed too quickly can cause nausea, vomiting or oesophageal reflux (Trigg & Mohammed 2010).</p> <p>Using a plunger can cause excess force and cause the child to vomit (Trigg & Mohammed 2010).</p> <p>In order for the infant to associate sucking with feeding (Trigg & Mohammed 2010)</p> <p>In order to facilitate the normal socialisation associated with feeding (Trigg & Mohammed 2010)</p> <p>To prevent instilling air into the tube leading to abdominal discomfort and wind (Trigg & Mohammed,2010)</p> <p>To ensure the child maintains their hydration and nutritional status</p> <p>To monitor child for any signs of discomfort and assess their tolerance for the feed. If signs of</p>
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<p>set/syringe</p> <p>Draw up 10/20mls of sterile water into a 10ml DASH 3 EnFit syringe for flushing the PEG tube or as directed by the Dietitian</p> <p>Flush tube with at least 10mls of sterile water using a 10ml/20ml DASH 3 EnFit syringe. If tube is not clear of feed following flushing use a further 10mls of sterile water.</p> <p>Close the PEG Tube/extension set cap</p> <p>Care of Extension Feeding Sets (For Mickey Button)</p> <ul style="list-style-type: none"> • Clean with warm water and detergent after each use • Disinfect the inside and outside of the extension set at ward level after each use for children under 1 year or immunocompromised patients • Allow to air dry • Place the extension set in a storage container at the child's bed space • Change the extension set weekly or more often if it needs to be 	<p>discomfort are present slow down or stop feed (Trigg & Mohammed 2010)</p> <p>To prevent air getting in to child's tube (Trigg & Mohammed 2010)</p> <p>Using a larger syringe exerts less pressure on the tube (Bard Access Systems 1994)</p> <p>To prevent blockage of tube (Payne-James 2001, NICE 2003)</p> <p>To adhere to standard infection control precautions and prevention of cross infection (HSE 2009)</p>
<p>Post procedure (administering enteral feeds and / or medication)</p>	
<p>Dispose of feeding bag and tubing in appropriate waste disposal and syringes into sharp bin</p> <p>Decontaminate hands</p> <p>Ensure the child is comfortable and reassured following the procedure</p> <p>Document date time and type of feed/medication administered</p>	<p>To promote safety and prevent cross contamination. (Department of Health and Children 2010, OLCHC 2014)</p> <p>To prevent cross infection (HSE 2009, Infection Control Department 2013, Nurse Practice Committee 2013, OLCHC 2015a)</p> <p>To help maintain a trusting relationship between the child and nurse (Hockenberry and Wilson 2013)</p> <p>To maintain accountability through accurate recording of nursing care (NHO 2009, NMBI 2015a), and to prevent any duplication of treatment (Dougherty and Lister 2015)</p>

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11.0 General Discharge Advice/Information/Education for a PEG Tube & Mic-key Button Gastrostomy

The ward nurse must also ensure the appropriate enteral feeding tube/button checklists (Appendix 2) is completed prior to discharge. This will ensure that the child and their family are linked with the appropriate service prior to their discharge home. The ward nurse should ensure that the appropriate enteral feeding equipment prescription should be completed prior to the discharge (Appendix 3). Appendix 4 provides stock references for all the various types of accessories that may be required for children being discharge home with enteral feeding needs (Appendix 4).

Parental Education

Prior to discharge parent/guardian must be competent in the care of the PEG tube/Mickey Button Gastrostomy (See Appendix 1 for an example of this). Implementation of a standard evidence based education protocol improves patient outcome and increase caregivers knowledge & confidence (Schweitzer et al 2014).

Please refer to the following advice leaflets for further details (all available on the OLCHC Intranet under the heading Nurse Practice Development and Parent Information Leaflets):-

- PEG Tube Feeding information for parents Booklet: TSCUH & OLCHC sponsored by Nutricia. http://olchcnet.hse.ie/Nurse_Practice_Development_Unit/_Parent_Information_Leaflets/Peg_Tube_Feeding_.pdf
- Advice for Parents / Guardians caring for an Infant / child with a COR-FLO Percutaneous Endoscopic Gastrostomy (PEG) Tube.
- Advice for Parents / Guardians caring for an infant / child with a Mic-Key Button.
- Information Leaflet for Parents/Carers of a child for Elective Removal of Mic-Key Low Profile Gastrostomy Feeding Tube (Mic-Key Button).
- Information Leaflet for Parents/Carers of a child for Elective Removal of PEG Tube.
- Medicines and Enteral feeding Tubes: General Information for Parents and Carers.
- Advice for parents/guardians caring for an infant/child with Laparoscopic assisted Gastrostomy Button (Mic-Key Button) Insertion.

12.0 Implementation Plan

Communication and Dissemination

- Guidelines will be posted on hospital Intranet and Internet (www.olchc.ie)
- Hard copies of this Guideline is available in the Nurse Practice Guidelines Folder in each clinical area


Education and Training

- Education and training will be delivered in the clinical area for nursing staff who provide enteral tube care (PEG Tube/Mic-Key Button) in OLCHC
- Education is included in induction packages in the clinical area for nursing staff who provide enteral tube care (PEG Tube/Mic-Key Button) in OLCHC

13.0 Evaluation and Audit


Monitoring of compliance is an important aspect of procedural documents. However, it is not possible to monitor all procedures. Therefore, this guideline will be reviewed on a three yearly basis or when indicated by a change in best practice using the following methods:

- Feedback from nursing staff who provide enteral tube care (PEG Tube/Mic-Key Button) in OLCHC on this guideline will contribute to ongoing guideline development.
- Monitoring Near Misses/ Adverse Incidents in accordance with OLCHC

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15.0 Appendices

Appendix 1: Example of an Enteral Tube Teaching Plan



Addressograph

Gastrostomy Teaching Plan (to be used in conjunction with post care instructions (CorFlow PEG))

Parent / Carer Name: _____ Use teaching plan for each individual carer

Practical Component	Q & A	Observed By Parent	Observed By Parent	Performed under Supervision	Performed under Supervision	Performed independently	Performed independently
Note: Where learning objectives are tested using questions & answers rather than observation or demonstration indicate same		Date:	Date:	Date:	Date:	Date:	Date:
1. Parent / Carer demonstrates an awareness of anatomy & physiology of GI Tract and relevant position of PEG tube.							
2. Parent / Carer demonstrates an awareness of any additional problems the child may have that complicates feeding e.g. reflux and identifies whether the child may take oral food / fluids.							
3. Safety: Parent / carer explains / demonstrates safe hand washing technique, storage of feed, how long feed may be stored once open, need to check correct feed at room temperature, expiry date, required rate, positioning of child during and after feed.							
4. Equipment: Parent / Carer demonstrates / explains <ul style="list-style-type: none"> a. Checks of all equipment for integrity b. Feeding pump & alarm systems c. Priming sets & extension set to dispel air d. Clearing previous information and setting rate & dose e. Gravity feeding f. Flushing tube pre and post feed g. Waste disposal & cleaning of equipment (in home environment) 							
5. Uses Clean technique throughout procedure							
6. Tube Care: <ul style="list-style-type: none"> a. Outlines & demonstrates correct care of tube (daily cleaning and drying thoroughly) b. Rotates tube 360 degrees daily. c. Change of Y connector & ensuring clamp is closed prior to removal d. Moving position of clamp. e. Demonstrates opening & cleaning of fixator on training tube. (not to be moved on actual PEG Minimum 4 weeks) 							
7. Is aware of symptoms that might indicate infection, over granulation, leakage (refer to post insertion care).							
8. Trouble shooting: Explains what to do if tube is blocked, becomes dislodged, if child develops vomiting, diarrhoea or abdominal discomfort							

15.2 Appendix 2: Example of an Enteral Feeding Discharge Checklist

Please tick		Yes (Y)	Comment	Date	Nurse signature / Grade / NMBI No
Gastroenterology Parent Teaching Plan:					
Completed and signed by:					
Parent / Guardian 1: _____					
Parent / Guardian 2: _____					
Other (if applicable): _____					
Gastroenterology Tube Feeding Information Booklet:					
Parent / Guardian received a copy of PEG Tube Booklet					
Dietitian:					
Dietetic BLUE Referral Form sent:					
Dietician Name: _____					
Bleep No: _____					
Nutricia					
Nutricia contacted by Dietitian for Enteral Feeding Pump Education Ph.: 1800 221800 / 01289 0236					
Nutricia Rep will visit: Date: _____ Time: _____					
One week supply of Enteral Feeding Pump Equipment given by Nutricia: (delivered to ward and received by parent/guardian)					
Prescriptions					
Feed Prescriptions					
Completed Type: _____					
Faxed by Dietitian to local Pharmacy:					
Pharmacy Name: _____					
Pharmacy Ph.: _____					
Fax No: _____					
Copy given to parents / guardian					
supplies / equipment Prescription					
Completed by ward nurse					
sent by ward nurse via Faxed / Emailed / Posted to PHN prior to discharge					
Copy given to parents / guardian					
Medication Management					
Pharmacy reviewed medication management and Leaflet given					
Nurse Follow up Care					
CWsp Nutrition support					
BLUE Referral Form sent:					
Pre Discharge meeting arranged (for additional advice): Date: _____ Time: _____					
Post Discharge follow up: Nurse-led Clinic (8-12 weeks) (to learn to open, adjust and clean the external fixation device)(for initial PEG Tube placement only) (made by parent / guardian: made aware to do so)					
PHN Follow up					
Local PHN follow-up:					
Discharge Letter Written:					
Discharge Letter Sent via post/fax/email					
Name: _____					
Contact Details: _____					
Outreach Nurse follow-up: (if applicable)					
Name: _____					
Contact Details: _____					



15.3 Appendix 3: Example of an Enteral Feeding Tube Prescription


GASTROSTOMY FEEDING TUBE ACCESSORIES PRESCRIPTION

Item	Description	Quantity	Reference No.	Supplier	Contact Number

Signature: **Print Name:** **Date:**

Title:

To be sign by Nutrition Support CNSp/ Medical Surgical Team

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15.4 Appendix 4: Enteral Feeding Stock Information

DASH 3 Single use syringes		DASH 3 [®] REUSABLE syringes	
NSV Code	Supplier Reference	NSV Code	Supplier Reference
FTR03529	Ref: 13011015 DASH 3 [®] ENFit 1ml syringe	FTR03561	Ref: 13021015 DASH 3 [®] ENFit Plus 1ml syringe
FTR03535	Ref: 13011125 DASH 3 [®] ENFit 2.5ml syringe	FTR03562	Ref: 13021125 DASH 3 [®] ENFit Plus 2.5 ml syringe
FTR03530	Ref: 13011050 DASH 3 [®] ENFit 5ml syringe	FTR03563	Ref: 13021050 DASH 3 [®] ENFit Plus 5ml syringe
FTR03504	Ref: 13011100 DASH 3 [®] ENFit 10ml syringe	FTR03564	Ref: 13021100 DASH 3 [®] ENFit Plus 10ml syringe
FTR03505	Ref: 13011200 DASH 3 [®] ENFit 20ml syringe	FTR03565	Ref: 13021200 DASH 3 [®] ENFit Plus 20ml syringe
FTR03503	Ref: 13011610 DASH 3 [®] ENFit 60ml syringe	FTR03555	Ref: 13021610 DASH 3 [®] ENFit Plus 60ml syringe

Technopath, Fort Henry Business Park Ballina, Co. Tipperary Ph: 061335844 www.techno-path.com

DASH 3[®] Accessories


NSV Code	Supplier Reference	Supplier Description
FSB03062	13031001	Bottle adaptor for DASH 3 ENFit [®] syringe 10mm-14mm size 1
FSB03063	13031002	Bottle adaptor for DASH 3 ENFit [®] syringe 14mm-16.8mm size 2
FSB03064	13031003	Bottle adaptor for DASH 3 ENFit [®] syringe 16.9mm-20mm size 3
FSB03067	13031004	Bottle adaptor for DASH 3 ENFit [®] syringe 20.2mm-24mm size 4
FTR03543	13041001	DASH 3 ENFit [®] syringe tip caps
FTR03544	3051050	DASH 3 ENFit [®] medicine straw 50mm
FTR03545	3051100	DASH 3 ENFit [®] medicine straw 100mm

Technopath, Fort Henry Business Park Ballina, Co. Tipperary Ph: 061335844 www.techno-path.com

CORFLO[®] PEG Y-ADAPTERS

NSV Code	Supplier Reference	Supplier Description
FWL01272	50-6112	Corflo [®] PEG repair kit y-adapters Size 12 fr
FWL01271	50-6116	Corflo [®] PEG repair kit y-adapters Size 16 fr
FWL01254	50-6120	Corflo [®] PEG repair kit y-adapters Size 20 fr

Uniphar Services, Citywest Ph 01-4688456

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MIC-KEY* BUTTONS		
NSV Code	Supplier Reference	Supplier Description
FWL01132	8140-FR size- cm size e.g 8140-16-3.5	MIC-KEY* Button Gastrostomy size? F r? cm e.g. MIC-KEY* Button Gastrostomy size 16 fr 3.5 cm
FSB03072	0141-12	EXTENSION SET - 1 type Secur-Lok ENFit right angle connector and 2 port Y 12"
DRESSINGS		
NSV Code	Supplier Reference	Supplier Description
ELA00255	281200	Mepilex® Border Lite 7.5 cm x 7.5 cm
EHU0032	298300	Mepitac® Tape
ELA00257	66800269	Supplier / Uniphar Allevyn* Gentle Border 7.5 cm x 7.5 cm
ELA00293	72631-00	Cutimed® Siltec B dressings 7.5 cm X 7.5cm X 2 daily
ELA00297	55512AMD	AMD Antimicrobial foam fenestrated disc dressing
	4008	IV3000 10cm x12cm
ELM00098	403706	Supplier United Drug Aquacel® Ag dressings 5cm X 5cm
EKB00021	CR3849	Actilite Dressing 10 x 10 cm
OTHER		
NSV Code	Supplier Reference	Supplier Description
FSE00463	44-4100	Farrell® Valve Enteral Gastric Pressure Relief System
FWM00396	1180-262154	Kangaroo® Paediatric feeding sets
NSV required	MED250L from Genesys –	250mls / Genesys contracted supplier

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