

CLINICAL GUIDELINE

Enteral Feeding Best Practice Statement - HSCPs

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The Intranet version of this document is the only version that is maintained.

Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

NHS GGC Community Enteral Feeding Group

Best Practice Statement for Enteral Feeding in Adults in NHSGGC Health and Social Care Partnerships

Introduction

This guidance has been developed by a sub-group of the NHS GGC Community Enteral Feeding Group and is underpinned by the Health Care Improvement Scotland (HIS) Complex Nutritional Care Standards 2015.

This document will provide comprehensive guidance for evidence based practice in relation to enteral tube feeding in adults for all NHS Healthcare staff within NHS GGC Health and Social Care Partnerships. It will facilitate and improve the organisation and quality of care for adult enteral feeding patients across all NHSGGC Health & Social Care Partnerships.

Where possible these statements have been based on evidence and/or research but when this was not available some decisions are based on consensus of opinion and any related reference(s) listed. Wide consultation took place before the recommendations were finalised.

It is intended that these best practice statements should be incorporated into the appropriate local policies, protocols and procedures.

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Section 1 - General Issues

	Statement
1.1. Prior to Feeding	<p>Commencement of enteral feeding will take place within an acute setting.</p> <p>Enteral Nutrition support via an artificial feeding tube should be considered in patients who are unable to maintain an adequate nutritional intake from food, and/ or oral nutritional supplements, or who cannot eat/drink safely and have a functioning Gastrointestinal tract.</p> <p>For patients who are under consideration for enteral feeding within Health and Social care Partnerships please discuss with patients named dietitian.</p> <p>Capacity to consent should be assessed in accordance with Adults with Incapacity (Scotland) Act 2000 – section 47 and NHS GGC Consent Policy (2021)</p> <p>The patient should be under the care of a Dietitian prior to considering the appropriateness of enteral feeding.</p>
1.2 Documentation following enteral feeding tube replacement	<p>Accurate record keeping is an essential aspect of patient care and helps to protect the welfare of patients by promoting staff to practice effectively with:</p> <ul style="list-style-type: none">• High standards and continuity of care• Better communication and dissemination of information between all members of the Multi-disciplinary team• An accurate account of treatment care planning delivery• The ability to detect problems at an early stage <p>All written records should be dated with the name, designation and the time the record was made.</p> <p>Electronic records will automatically record this detail.</p> <p>When an enteral feeding tube has been replaced document the following information in the patients nursing notes/care plans as per local policy e.g. Community Nurse Information System (CNIS)</p>

- Date
- Type of enteral feeding tube.
- Make and batch number of tube.
- Length and size of tube (French Gauge).
- Method of tube position confirmation.
- Approximate date for replacement.
- Name, signature and designation of person placing the tube.

Where patients are discharged within 72 hours of gastrostomy insertion, patients should be provided with post discharge information and advised to seek urgent medical attention if they receive the following symptoms;

Pain on feeding, OR prolonged or severe pain post-procedure, OR fresh bleeding, or external leakage of gastric contents, stop Feed/Medication delivery IMMEDIATELY. Obtain Senior advice URGENTLY and consider CT scan, contrast study or surgical review. (NSPA 2010)

1.3 Training and changing enteral feeding tubes

Staff must possess the knowledge, skills and ability required for lawful, safe and effective care and must only practice those activities in which they have received appropriate education, training and experience.

Any staff involved in replacing nasogastric, nasal tube retention devices, gastrostomy tubes (e.g. Monarch non-balloon gastrostomy, low profile “button” tubes and balloon gastrostomy tubes), and Balloon gastrostomy tubes) and replacing feeding tube connectors must be competent to undertake the procedure in accordance with agreed NMC Standards

For training and support for changing enteral feeding tubes within HSCPs please refer to:

 [Enteral Feeding Nurse.](#)

NHSGGC Health & Social Care Partnerships Enteral Feeding  [Service Specification](#)

1.4 The use of water in enteral feeding

NHSGGC Health and Social Care Partnerships recommend cooled freshly boiled water for flushing patient's enteral feeding tube within the homely setting.

The NICE (2012) guidance also recommends cooled freshly boiled water or sterile water from a freshly opened container for patients who are immunosuppressed. This should be considered on a patient to patient basis under medical guidance.

Guidance for use of storage containers and jugs for water:

- When using cooled boiled water, water should be boiled and allowed to cool before decanting into jug – this should be changed at least every 24 hours.
- The patient should have an identified jug for this purpose.
- After use the jug should be washed in hot soapy water and dried with a paper towel.
- If the jug is not used immediately it should be kept covered until required.

1.5 Flushing enteral feeding tubes

When flushing a patient's enteral feeding tubes, a push/pause technique must be used, as this is more effective in maintaining tube patency. Using push/pause technique and regular flushing of the enteral feeding tube will help to reduce the risk of blockage. If a patient is not using their enteral feeding tube, the tube should be flushed once every 24 hours.

Always refer to patient individual home enteral feeding regimen for volume and flushing requirements or discuss with Dietitian.

Please note minimal recommended volumes for flushes are:

- Flush tube with 30ml water at beginning and end of medicines administration (unless fluid restricted).
- Flush tube with 30mls water at beginning and end of enteral feed administration (unless fluid restricted).
- Flush tube with 10ml water between each medicine. 🌐 (BAPEN, 2018).

<p>1.6 Type/Size of syringe used for enteral feeding, flushing and administration of medication.</p>	<p>Where possible always use the largest and most practical enteral feeding sized syringe to avoid tube damage (BAPEN, 2018) .</p> <p>Currently home enteral feeding syringe used with homely setting is Enteral ISO-Safe Home. These syringes are intended for use and re-use by one person and may be cleaned and re-used for no more than 14 days.</p> <p>Precautions:</p> <ul style="list-style-type: none">• Do not use the syringe if the plunger doesn't move smoothly and easily into the barrel.• Do not use the syringe if there is any visible damage to either the plunger or barrel.• Discard the syringe if the dose markings on the side are no longer clear and easy to read. <p>For practical information on the direct administration of medication, see section 8.</p>
<p>1.7 Managing blocked enteral feeding tubes</p>	<p>In general, if an enteral feeding tube does become blocked:</p> <ul style="list-style-type: none">• Blockages become harder to unblock over time, so try to clear as soon as possible.• Flush with warm/tepid water using gentle force with a push-and-pull approach. If unsuccessful with warmed water, soda water may be used.• DO NOT USE ANY OTHER LIQUIDS i.e. Cranberry juice, carbonated cola drinks and pineapple juice. These are acidic and may contribute to tube blockage.• Smaller sized enteral feeding syringes can be used with caution to aid in unblocking tubes. DO NOT USE EXCESSIVE FORCE AS THIS CAN CAUSE TUBE TO SPLIT.• Contact Enteral Feeding Nurse if support required. <p>For further information relating to specific enteral feeding tubes please see relevant sections below:</p> <ul style="list-style-type: none">• Gastrostomy tubes - Section 3• Naso Jejunal & Jejunostomy tubes (post pyloric tubes) - Section 6• Nasogastric tubes - Section 7

**1.8
Patient position during feeding / Gastro-oesophageal reflux and pulmonary aspiration**

To minimise risk of aspiration, ensure patient upright at minimum of 30 degrees (where possible during feed and at least one hour following feed).

If positional changes or personal care is required feed should be stopped for a minimum of 20 minutes.

Patients who are at risk of aspiration should not be continuously fed overnight. Sometimes regurgitation or aspiration can be a result of a disease process and its management for example gastroparesis or diabetic neuropathy.

Gastro-oesophageal reflux and pulmonary aspiration can occur with enteral tube feeding resulting in pneumonia. Several factors increase the risk of aspiration, including:

- Impaired consciousness /gag reflex
- Supine position
- Large gastric residual volumes
- Mal positioned feeding tubes

Aspiration may occur with no obvious vomiting or coughing sometimes known as silent aspiration.

**1.9
Delivery of Bolus feeds**

Bolus feeding refers to a volume of feed given over a short space of time either by gravity, syringe or by a feeding pump. When using a syringe use a push pause technique and administer slowly.

The rate of delivery should not exceed 30mls/minute for adults. Maximum volume 400mls at any one time although the actual volume will depend on the patient’s size and tolerance.

It is not routine practice to bolus feed directly in the Jejunum however this can be considered on a case to case basis. If required discuss with Enteral Feeding Dietitian.

**1.10
Causes and Management of nausea, bloating and vomiting**

Cause	Checklist
Too rapid administration	Reduce rate or bolus amount
Feed too cold	Ensure feed is at room temperature
Side effects of medication	Review prescribed medication
Prescribe anti –emetic check this bit?	
Delayed gastric emptying	Check gastric aspirate and check with Enteral Feeding Nurses

<p>1.11 Causes and Management of Diarrhoea</p>	<table border="1"> <thead> <tr> <th data-bbox="651 108 1341 161">Causes</th> <th data-bbox="1346 108 2036 161">Checklist</th> </tr> </thead> <tbody> <tr> <td data-bbox="651 164 1341 293">Malabsorption</td> <td data-bbox="1346 164 2036 293">Medical review of bowel habits and pre-existing bowel disorders, consider pancreatic enzyme therapy or peptide feed</td> </tr> <tr> <td data-bbox="651 296 1341 349">Immunological</td> <td data-bbox="1346 296 2036 349">Medical review</td> </tr> <tr> <td data-bbox="651 352 1341 405">Pharmaceutical</td> <td data-bbox="1346 352 2036 405">Review recent and current drug therapy</td> </tr> <tr> <td data-bbox="651 408 1341 461">Infection</td> <td data-bbox="1346 408 2036 461">Stool sample for analysis</td> </tr> <tr> <td data-bbox="651 464 1341 517">Too rapid administration</td> <td data-bbox="1346 464 2036 517">Reduce rate/bolus amount</td> </tr> <tr> <td data-bbox="651 520 1341 603">Intolerance</td> <td data-bbox="1346 520 2036 603">Secondary lactose intolerance post gastroenteritis</td> </tr> <tr> <td data-bbox="651 606 1341 858">Other</td> <td data-bbox="1346 606 2036 858"> Review fibre intake Review recent dietary intake Check Biochemistry Medical review/check stool chart Review techniques/procedures </td> </tr> </tbody> </table>	Causes	Checklist	Malabsorption	Medical review of bowel habits and pre-existing bowel disorders, consider pancreatic enzyme therapy or peptide feed	Immunological	Medical review	Pharmaceutical	Review recent and current drug therapy	Infection	Stool sample for analysis	Too rapid administration	Reduce rate/bolus amount	Intolerance	Secondary lactose intolerance post gastroenteritis	Other	Review fibre intake Review recent dietary intake Check Biochemistry Medical review/check stool chart Review techniques/procedures
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Todorovic, V & Mafirci B, (2018)

References

- Adults with Incapacity (Scotland) Act 2000: Section 47.
Available at: <https://www.legislation.gov.uk/asp/2000/4/contents> (Accessed 17th May 2022).
- BAPEN (2018) Enteral Nutrition.
Available at: <https://www.bapen.org.uk/nutrition-support/enteral-nutrition> (Accessed: 31st May 2022).
- NHS GGC Consent Policy on Healthcare Assessment and Treatment (2021)
Available at: [Microsoft Word - Consent Policy September 2021 \(nhsggc.org.uk\)](#)
- NICE (2012) Infection control – Prevention of healthcare-associated infections in primary and community care.
Available at: <https://www.nice.org.uk/guidance> (Accessed 31st May 2022).
- NPSA (2010) National Patient Safety Agency Rapid Response Report: Early detection of complications after gastrostomy.
Available at: <http://www.nrls.npsa.nhs.uk/> (Accessed 10 June 2021).
- NMC (2018) The Code: Professional Standards of practice and behaviour for nurses, midwives and nursing associates.
Available at: <http://www.nmc.org.uk/code> (Accessed 10 June 2021).
- Todorovic, V & Mafirci B, (2018) A Pocket Guide to Clinical Nutrition. 5th Ed. Parenteral and Enteral Group of (PENG) of the British Dietetic Association.

Additional Evidence

- Bischoff, S.C et al (2020) ESPEN Guideline on home enteral nutrition. Clinical Nutrition 39:5-22
- Healthcare Improvement Scotland (2015) Complex Nutritional Care Standards.
Available at: http://www.healthcareimprovementscotland.org/our_work/standards_and_guidelines/stnds/complex_nutrition_standards.aspx (Accessed: 8th August 2022).
- Health Care Professions Council (2016) Standards of conduct, performance and ethics.
Available at: <http://www.hcpc-uk.co.uk/> (Accessed: 10 June 2021).
- NHS GGC Acute Nutrition Resource Manual (2021)
Available at: [NHSGGC Nutrition Resource Manual \(scot.nhs.uk\)](#) (Accessed 17th May 2022)
- NHS GGC Consent Policy on Healthcare Assessment and Treatment (2021)
Available at: [Microsoft Word - Consent Policy September 2021 \(nhsggc.org.uk\)](#)
- NICE (2006) Nutrition support in adults: Oral nutrition support, enteral tube feeding and parenteral nutrition.
Available at: <https://www.nice.org.uk/guidance> (Accessed 31st May 2022).

Section 2 - Refeeding Syndrome in NHSGGC Community Health & Social Care Partnerships

Issue	Statement										
<p data-bbox="116 217 443 300">2.1 Re-feeding Syndrome</p>	<p data-bbox="586 217 2136 379">Definition: "Refeeding syndrome is not a singular condition but a group of biochemical shifts and clinical symptoms that can occur in the malnourished or starved individual upon the reintroduction of oral, enteral or parenteral nutrition" (PENG, 2018).</p> <p data-bbox="586 392 815 424">Patients at Risk</p> <table border="1" data-bbox="667 443 2051 1318"> <thead> <tr> <th data-bbox="667 443 1088 497">Risk category</th> <th data-bbox="1088 443 2051 497">How to identify a patient</th> </tr> </thead> <tbody> <tr> <td data-bbox="667 497 1088 590">At risk patient</td> <td data-bbox="1088 497 2051 590">Any patient who has had very little or no food intake for (>) greater than 5 days.</td> </tr> <tr> <td data-bbox="667 590 1088 922">High risk patients</td> <td data-bbox="1088 590 2051 922">Any patient is at higher risk of refeeding syndrome if they have one or more of the following: <ul data-bbox="1102 692 2016 916" style="list-style-type: none"> • BMI <16kg/m² • Unintentional weight loss >15% in the last 3-6 months • Very little or no food nutrition for > 10 days • Low concentrations of potassium, magnesium, or phosphate prior to feeding </td> </tr> <tr> <td data-bbox="667 922 1088 1216">High risk patients</td> <td data-bbox="1088 922 2051 1216">Or if a patient has 2 or more of the following: BMI <18.5kgs/m² Unintentional weight loss >10% in the last 3-6 months Very little or no food nutrition for > 5 days A history of alcohol abuse or drugs including insulin, chemotherapy, antacids or diuretics</td> </tr> <tr> <td data-bbox="667 1216 1088 1318">Extremely high risk patient</td> <td data-bbox="1088 1216 2051 1318">Patients with BMI <14kg/m² Negligible intake for > 15 days</td> </tr> </tbody> </table>	Risk category	How to identify a patient	At risk patient	Any patient who has had very little or no food intake for (>) greater than 5 days.	High risk patients	Any patient is at higher risk of refeeding syndrome if they have one or more of the following: <ul data-bbox="1102 692 2016 916" style="list-style-type: none"> • BMI <16kg/m² • Unintentional weight loss >15% in the last 3-6 months • Very little or no food nutrition for > 10 days • Low concentrations of potassium, magnesium, or phosphate prior to feeding 	High risk patients	Or if a patient has 2 or more of the following: BMI <18.5kgs/m ² Unintentional weight loss >10% in the last 3-6 months Very little or no food nutrition for > 5 days A history of alcohol abuse or drugs including insulin, chemotherapy, antacids or diuretics	Extremely high risk patient	Patients with BMI <14kg/m ² Negligible intake for > 15 days
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Consequences:

- Hypophosphataemia
- Hypokalaemia
- Hypomagnesiemia
- Fluid balance abnormalities – leading to refeeding oedema.
- Vitamin Deficiency

Treatment:

Refer to the NHSGGC (2017) Community Guideline Identification of Adults at risk of Refeeding Syndrome in Primary Care (and access the BAPEN decision tree for refeeding syndrome for identification of those at risk for appropriate treatment options).

Available at: <https://clinicalguidelines.nhs.gov.uk/nutrition/conditions-management/adults-at-risk-of-re-feeding-syndrome-in-primary-care-219/>

Note – the guidance on refeeding has changed with the publication of A Pocket Guide to Clinical Nutrition 5th Ed (2018) however the BAPEN decision tree is yet to be updated. Local dietetic departments will have access to a copy of A Pocket Guide to Clinical Nutrition 5th Ed (2018) for reference.

If a clinician feels a patient is at risk of refeeding this should be discussed with the managing dietitian or GP.

If the managing Dietitian requires further guidance please contact the Enteral Feeding Dietitians preferably via email: Glasgow.heft@ggc.scot.nhs.uk or generic office number.

Energy – Initiate nutrition support between 10-20kcal/kg body weight/day with adequate electrolyte and micronutrient provision. Monitor closely over the initial 72 hours. Increase to full requirements over 4-7 days.

Electrolyte provision – basic electrolyte requirements should be met from the onset of feeding. Provide additional replacement if low levels are observed during feeding.

Feeding and correction of electrolytes should occur concurrently (PENG, 2018).

References

- NHSGGC (2017) Community Guideline Identification of Adults at risk of Refeeding Syndrome in Primary Care. Available at: <https://clinicalguidelines.nhsggc.org.uk/nutrition/conditions-management/adults-at-risk-of-re-feeding-syndrome-in-primary-care-219/> (Accessed 8 August 2022)
- Todorovic, V & Mafirci B, (2018) A Pocket Guide to Clinical Nutrition. 5th Ed. Parenteral and Enteral Group of (PENG) of the British Dietetic Association.

Additional Evidence

- British Association of Parenteral and Enteral Nutrition BAPEN (2012) Refeeding syndrome: Identification of who is at risk. Available at: <http://www.bapen.org.uk/pdfs/decision-trees/refeeding-syndrome.pdf>
- NICE (2006) CG32 Updated Aug 2017 Nutrition support in adults: Oral nutrition support, enteral tube feeding and parenteral nutrition. Available at: <https://www.nice.org.uk/guidance> (Accessed 10 June 2021).

Section 3 - General Gastrostomy Tube information

Issue	Statement
3.1 Glossary Of Terms	<ul style="list-style-type: none">• Initial gastrostomy tube placement: the first time a gastrostomy tube is placed into the patient in the acute setting.• First change of the gastrostomy tube: this is the first change of the gastrostomy tube after initial placement.• Balloon gastrostomy tube: a gastrostomy tube retained internally by an inflatable balloon (PEG and PIGG's are held in place with discs, RIGs are held with balloon, see below for further information).• Balloon Volume: Balloon volumes vary according to the tube size and manufacturers recommendation. The balloon inflation valve will advise of the maximum inflation of the balloon in the tube you are using.• Button gastrostomy/ Low profile device: a skin level gastrostomy tube retained internally by an inflatable balloon. A low-profile gastrostomy tube is a lightweight alternative to the standard Gastrostomy Tube. It will rest comfortable above the abdomen and is well suited to independent active adults with a well-established feeding tract living in a community setting or a patient who may be prone to pulling on their feeding tube.• Stoma site: the surgically created opening on the abdominal wall where the gastrostomy tube enters/exits the stomach.• How the device is fitted i.e.; radiologically (RIG and PIGG) endoscopically (PEG) or surgically• Gastrostomy Tube Size: Tubes range in size from 12Fr to 24Fr gauge• RIG's: Radiologically Inserted Gastrostomy Tubes (RIG's)

Follow below hyperlinks for further details:

Methods of Gastrostomy insertion:

🌐 <http://www.staffnet.ggc.scot.nhs.uk/Acute/Division%20Wide%20Services/Food%20Fluid%20And%20Nutrition/Documents/Nutrition%20Manual/Section%205%20Docs/Part%203/12%20Gastro%20Route/05.0%20Gastro%20EN%20-%20Methods%20of%20Gastro%20Insert.pdf>

Includes information on:

Percutaneous Endoscopic Gastrostomy (PEG)

🌐 [http://www.staffnet.ggc.scot.nhs.uk/Acute/Division%20Wide%20Services/Food%20Fluid%20And%20Nutrition/Documents/Nutrition%20Manual/Section%205%20Docs/Part%203/12%20Gastro%20Route/05.1%20Gastro%20EN%20-%20Percutaneous%20End%20Gastro%20\(PEG\).pdf](http://www.staffnet.ggc.scot.nhs.uk/Acute/Division%20Wide%20Services/Food%20Fluid%20And%20Nutrition/Documents/Nutrition%20Manual/Section%205%20Docs/Part%203/12%20Gastro%20Route/05.1%20Gastro%20EN%20-%20Percutaneous%20End%20Gastro%20(PEG).pdf)

Radiological Inserted Gastrostomy or Percutaneous Radiological Gastrostomy (RIG/PRG)

🌐 <http://www.staffnet.ggc.scot.nhs.uk/Acute/Division%20Wide%20Services/Food%20Fluid%20And%20Nutrition/Documents/Nutrition%20Manual/Section%205%20Docs/Part%203/12%20Gastro%20Route/05.2%20Gastro%20EN%20-%20RIG%20or%20Perc.pdf>

Per oral image Guided Gastrostomy (PIGG)

🌐 <http://www.staffnet.ggc.scot.nhs.uk/Acute/Division%20Wide%20Services/Food%20Fluid%20And%20Nutrition/Documents/Nutrition%20Manual/Section%205%20Docs/Part%203/12%20Gastro%20Route/05.3%20Gastro%20EN%20-%20PIGG.pdf>

Surgical gastrostomy

🌐 <http://www.staffnet.ggc.scot.nhs.uk/Acute/Division%20Wide%20Services/Food%20Fluid%20And%20Nutrition/Documents/Nutrition%20Manual/Section%205%20Docs/Part%203/12%20Gastro%20Route/05.4%20Gastro%20EN%20-%20Surgical%20Gastro.pdf>

When a feeding tube has been placed it is important to document approximate date for next replacement.

3.2 Gastrostomy tube definition and initial placement and replacement information.


A gastrostomy tube is an enteral feeding tube placed directly through the patient's abdomen into the stomach. The feeding tip of the tube (distal tip) sits within the stomach.

Gastrostomy tube placement

It is essential that the practitioner/patient/carer understands how the gastrostomy tube was inserted, i.e. radiologically, endoscopically or surgically, to:

- Ensure appropriate care of the tube and stoma site is provided.
- Be aware of whether the device is secured with or without anchoring (gastropexy) sutures.
- Understand where the feeding tip of the tube sits in the stomach. (NNNG, 2016)

The general term gastrostomy should always be used when describing such devices, to avoid misinterpretation of how a device is fitted and subsequently avoiding incorrect handling and care.

Replacement of a gastrostomy tube will be dependent upon type of gastrostomy tube being replaced, patient condition, local protocols and practitioner competence. Within NHSGGC HSCP's the  **Community Partnerships Enteral Feeding team** is available to provide support, education and training for Gastrostomy tube care and replacement.

Replacement of PEGs and PIGGs, suggested as per manufacturers guidance, every 2 years using traction. RIGs are routinely changed in the community every 6 months or sooner if dislodged.

3.3

Care following initial stoma formation

72 hours – 14 days post initial insertion

As per Home Enteral feeding discharge guidance; all patients discharged from an inpatient setting must be referred to the appropriate community service for continued patient care and support.

 [15.0 HEF Algorithm FINAL.pdf \(scot.nhs.uk\)](#)

Please refer to information given at time of patient discharge for individual patient care plan or contact discharging hospital Nutrition Nurse for further details.

In general:

- Do not move the external fixation device for 7-14 days as per discharge information from the Nutrition Nurse
- Clean skin around the stoma site and under the external fixation device with water and disposable cloth
- If applicable cut sutures as per nutrition nurse direction, contact Enteral Feeding Nurse if required
- If patient develops pain, redness, inflammation, swelling or a leakage within 14 days of initial insertion contact District Nursing Team (1st line) or Enteral Feeding Nurse (2nd line) for advice.

14 Days post insertion and then weekly

Clean the stoma site, the gastrostomy tube and surrounding skin with non-perfumed hypoallergenic soap and fresh tap water using a clean cloth for this purpose only (In hospital disposable wipes may be used).

- Dry thoroughly but gently
- Do not apply any creams or talcum powder
- Check that the external fixator is positioned correctly (normally 2 – 5mm from the surface of the abdomen giving sufficient room for the patient to take a deep breath comfortably). (NNNG 2013)

Advancement of tube: Advancing the tube is recommended weekly but no more than once daily to prevent Buried Bumper syndrome (internal fixator becomes embedded in gastric mucosa which can lead to severe complications for the patient).

After 14 days or as per nutrition nurse discharge information the external fixator should be loosened and the tube advanced weekly 2-3cm into the stomach and returned to its initial position.

This position should be included in the nutrition nurse discharge information. Reposition the external fixator for cleaning and repositioning minimising the risk of buried bumper syndrome.

3.4

Stoma site problems

Assessment and Treatment.

Observe the stoma site and surrounding skin daily to identify signs and symptoms of infection, leakage or inadequate tube care, for signs of:

- Redness
- Heat
- Swelling
- Exudate
- Discomfort/Pain

Inflammation

If localised inflammation is observed:

- Check the position of the external fixation device
- Consider loosening or tightening as appropriate (should be 2-5mm from the skin)
- Check that neither the stoma site or gastrostomy tube is irritated by clothing or other restrictions e.g. waist bands, underwear, nappies
- Where possible correct problem
- Protect the affected skin. Use an appropriate barrier film (not an occlusive dressing)
- A polyurethane foam dressing placed under the fixation device may be used as a cushion

If appearance of cellulitis please contact Enteral Feeding Nurses or request GP review

Infection – Bacterial and Fungal

Infection can be minimised by scrupulous hygiene of the stoma site.

- Obtain a wound swab for bacteriology if any exudates or inflammation present
- Establish whether the patient has any allergies
- Apply a dressing impregnated with an antimicrobial agent directly onto tissue surrounding the gastrostomy tube, under the fixation device until further appropriate systemic treatment is identified and initiate.
- If bacterial or fungal infection is confirmed administer systemic antibiotic or antifungal agents as prescribed
- **NB: Topical antibiotics should not be used**

In some cases following treatment for a fungal/ bacterial infection it may be advisable to replace the Gastrostomy Tube (particularly if a silicone tube is in situ). If unsure discuss with Enteral Feeding Nurses.

Infection – Candida

Tube often appears to have a bumpy appearance. A burst balloon or leaking feeding port can also be an indication of candida.

Please refer to the Enteral Feeding Nurses for advice.

Overgranulation

Common causes of overgranulation include:

- Excessive movement of tube causing friction
- Insufficient rotation of the tube
- Excess moisture poorly managed
- Critical colonisation or true infection
- Presence of foreign material


Over granulation can and may reduce naturally and heal without intervention.

Pressure Damage

If pressure damage is observed around the external fixator, ensure the device is not too tight and correct size tube is in situ by:

- Checking the position of the gastrostomy and external fixator. Check documentation for previous recordings of appropriate external fixator position.
- Consider changes in body weight
- If required re-adjust external fixator to 2-5mm from the abdomen
- Consider re-measuring the stoma tract if a low profile device (button) is in situ and insert correct size tube.

If problem persists or you are concerned please contact Community Enteral Feeding Service for advice.

<p>3.5 Replacing a feeding adaptor</p>	<p>There are replacement feeding adaptors for some gastrostomy tubes e.g. Avanos PEG Tubes and Monarch Gastrostomy Tubes.</p> <p>Staff involved in the replacement of feeding adaptors should have received appropriate training. If training is required, please contact the Enteral Feeding Nurses.</p> <p>Some gastrostomy tubes do not have replacement feeding adaptors e.g. balloon gastrostomy tubes. In these instances, if there are issues with the feeding tube the full feeding tube may need to be replaced.</p> <p>Staff involved in tube replacement should have received appropriate training. If training required contact Enteral Feeding Nurses</p>
<p>3.6 Replacement and Removal of a Gastrostomy Tube</p>	<p>Each gastrostomy tube will have Manufacturer's guidelines for removal, these should be referred to and where uncertainty arises discuss with the Community Enteral Feeding Service.</p> <p>Reference should also be made to on-line NHS National Services Scotland Prevention and Infection control manual for hand hygiene procedures and decontamination of equipment.</p> <p> National Infection Prevention and Control Manual: Chapter 1 - Standard Infection Control Precautions (SICPs) (scot.nhs.uk)</p> <p>1. Primary PEG or PIGG Tube:</p> <p>Replacement/Permanent removal</p> <p>This is done within the Acute setting.</p> <p>The gastrostomy tubes will have Manufacturer's guidelines for removal, some may be able to be traction removed and some may only be removed endoscopically.</p> <p>Where there is uncertainty consult the Enteral Feeding Nurses</p> <p>2. Balloon Gastrostomy Tube</p> <p>Replacement:</p> <p>Always follow manufacturer's guidelines. As a guide:</p> <ul style="list-style-type: none"> • Life span of the tube can vary depending on medication taken, acidity of the stoma, frequency of the tube use and fungal infection • Frequency of change may alter depending on patient's clinical condition. Please contact the Enteral Feeding Nurses <p>Within NHS GGC it is recommended:</p> <ul style="list-style-type: none"> • Balloon Retained Gastrostomy Tubes: changed every 6 months • Balloon retained Low profile devices: changed every 6 months

pH Levels:

After the tube is replaced it is important to test the gastric aspirate with CE marked pH indicator strips to test for human gastric aspirate. This is the recommended 1st line method to check correct gastrostomy tube position. A pH of 5.5 or less is required and always document the pH and record in patient records.

If the procedure has been difficult suggest Tubogram at local hospital.

Please see Appendix 1 for NHS GGC Community Procedure for Planned Replacement of Balloon Gastrostomy

Permanent Removal:

This procedure should only be undertaken by healthcare professionals who are competent in the procedure.

Each gastrostomy tube will have Manufacturer's guidelines for removal, these should be referred to and where uncertainty arises discuss with the Community Enteral Feeding Service.

Advise patient and staff that patient remain nil by mouth for one hour post removal to allow tract healing and closure to commence.

3.7 Frequency of Changing Tubes

When a feeding tube has been inserted, document recommended date for replacement.

Always follow manufacturers' guidelines. As a guide:

- Primary PEG with internal bolster (acute change only): 24months
- Balloon - retained gastrostomy Tube (i.e. Flocare): 6 months
- Low - profile device (non-balloon): 18-24months
- Balloon - retained low profile device (i.e Mickey): 6 months
- Non balloon - retained gastrostomy tube (i.e. Monarch): 24 months

3.8 Maintaining balloon retained Gastrostomy Tubes

The integrity of the balloon is critical to maintaining the position of this device.

Frequency of water change

Balloon Retained Gastrostomy devices should have the balloon inflation checked weekly to maintain maximum inflation retaining properties or follow manufactures guidelines.

Solution used in balloon

Within GGC the use of sterile water is recommended.

There is no evidence to suggest a preference for sterile water or cooled boiled water therefore manufacturer's guidance or NHS GGC recommendations should be followed.

Extension set- Low profile devices

An extension set must be connected to a low profile tube to enable water, feed or medications to be administered. Once completed the extension set should be removed.

<p>3.9 Difficulties removing water from balloon retained tubes</p>	<p>Check that the correct syringe is being used. This should be a leur slip.</p> <p>Ensure it is attached to balloon inflation port firmly. Try again, if unsuccessful the balloon may be empty or burst.</p> <p>Carry out balloon maintenance and try to withdraw the water just placed to ensure the device is inflated. If no water comes out there is potential that the balloon has burst therefore with caution attempt removal if any resistance contact Enteral Feeding Nurse.</p> <p>If unsuccessful the balloon port and balloon channel; may be burst. Secure the tube with tape or dressing over the retention disc and contact the Enteral feeding Nurses for advice.</p>
<p>3.10 What to do when a Gastrostomy Tube comes out</p>	<p>Please refer to relevant section for guidance relating to reinsertion of specific tubes.</p> <p>Generally, an established tract is usually considered safe from 4 – 6 weeks post insertion of the primary placement.</p> <p>If a tube dislodges less than 4 weeks from original insertion, patient attends Accident and Emergency taking spare G-tube (The patient will need an X-ray to confirm position of replaced tube)</p> <p>If tube dislodges more than 4 weeks but less than 12 weeks contact Enteral Feeding Nurses for advice. OOH discuss with NHS 24.</p> <p>Where the tube has been in-situ for more than 12 weeks and becomes dislodged, if competent, insert a balloon-retained replacement tube. Position can be confirmed by gastric aspiration – aspirate should be checked using CE marked pH indicator strips to test human gastric aspirate and pH of 5.5 or less recorded.</p> <p>Recommence feed as per established regime, unless patient is identified as being at refeeding risk (section 2), in which case contact the patient’s managing dietitian for advice.</p> <p>Ensure a spare tube of the correct size is available. The permanent replacement tube or temporary tube should be the same or similar size to the tube, which has fallen out. Replacement tubes can be ordered via the patient’s managing Dietitian.</p> <p>If a replacement tube is not available an Enplug stoma stopper can be used to keep to stoma open. These can be ordered for individual patients via the Enteral Feeding Dietitian.</p>

	<p>Any staff involved in changing tubes should have received appropriate training.</p> <ul style="list-style-type: none"> • In all cases if a gastrostomy tube falls out then it should be replaced as soon as possible, or the stoma tract may start to close (only after 4 weeks from primary insertion in hospital should community insertion be attempted). • Mature stomas will take longer to close but some others may close quicker. Please always attend and attempt re-insertion. If unable to within core hours, please contact the Enteral Feeding Nurses numbers. Urgent response number Mon – Fri within core hours, 07866032940 OOH patient to attend A&E • If a balloon gastrostomy is to be used as a replacement percutaneously it must be via an established tract. <p>Dislodged Gastrostomy Tube algorithm is given to patient on discharge and handover to the appropriate DN service. See appendix 2</p> <p>Always contact the Enteral Feeding Nurses if unable to re-insert a patient’s gastrostomy tube</p>
<p>3.11 Fasting prior to and after permanent gastrostomy tube removal</p>	<p>There is no evidence to suggest that fasting is required before or after permanent tube removal, but it may be appropriate for the patient to fast for 4 hours before the tube is removed.</p> <p>Consider the needs of the individual patient but do not remove the tube just after food or drink.</p> <p>Consider requirement of essential medications</p> <p>When requiring pH levels, PPI’s should be withheld to allow accurate levels.</p>
<p>3.12 Radiologically Inserted Gastrostomy Tubes (RIG’s)</p>	<p>Radiologically Inserted Gastrostomy Tubes are used when it is unsuitable for a patient to have an endoscope passed.</p> <p>Follow the hyperlink for further details:</p> <p>http://www.staffnet.ggc.scot.nhs.uk/Acute/Division%20Wide%20Services/Food%20Fluid%20And%20Nutrition/Documents/Nutrition%20Manual/Section%205%20Docs/Part%203/12%20Gastro%20Route/05.2%20Gastro%20EN%20-%20RIG%20or%20Perc.pdf</p>

3.13 Care of Gastropexy Sutures

At the time of insertion in the hospital there are 2-4 sutures inserted to secure the stomach wall to the abdominal wall to allow the stoma to form: **please note that the gastrostomy tube is not held in place by the sutures.**

Sometimes the patient may be discharged from hospital into the community setting. The community nursing team may be asked to cut these sutures to skin level 7-14 days post procedure.

Within GGC it is recommended that the patient remains in hospital for 72 hours post primary gastrostomy insertion.

Where a patient is discharged within 72 hours of gastrostomy tube insertion patients should be provided with advice and information leaflets from the hospital and advised to seek urgent medical advice if they experience:

- Pain on feeding
- Prolonged or severe pain post procedure
- Fresh blood
- External leakage or gastric content
- Feed/ medication should be stopped immediately.

Around the stoma there may be 2-4 gastropexy sutures in place. If the suture locks are in place **DO NOT ROTATE** as it may weaken the suture and cause early detachment.

DO NOT ROTATE OR ADVANCE the gastrostomy for the first 2 weeks after placement.

References

- NHS GGC Acute Nutrition Resource Manual
Available at: [🌐 NHSGGC Nutrition Resource Manual \(scot.nhs.uk\)](https://www.nhs.uk/ggc/nutrition-resource-manual/) (Accessed 17th May 2022)
- National Infection Prevention and control Manual (2016) Chapter 1: Standard infection Control.
Available at: [🌐 https://www.nipcm.scot.nhs.uk/chapter-1-standard-infection-control-precautions-sicps/](https://www.nipcm.scot.nhs.uk/chapter-1-standard-infection-control-precautions-sicps/) (Accessed 10 June 2021).
- National Nurses Nutrition Group (2016) Good practice Guideline on changing a gastrostomy tube for adults and children into the stomach.
Available at: [🌐 http://www.nnng.org.uk/wp-content/uploads/2016/06/Good-practice-changing-a-gastrostomy-tube-Final-June-20161.pdf](http://www.nnng.org.uk/wp-content/uploads/2016/06/Good-practice-changing-a-gastrostomy-tube-Final-June-20161.pdf) (Accessed 10 June 2021).
- NPSA (2010) National Patient Safety Agency Rapid Response Report: Early detection of complications after gastrostomy.
Available at: [🌐 NRLS-1214-Gastrostomy_RRR-2010.03.29-v1.pdf \(gosh.nhs.uk\)](https://www.gosh.nhs.uk/sites/default/files/2010-03-29-v1.pdf) (Accessed 8th August 2022)

Additional References

- BAPEN (2012) Percutaneous Endoscopic Gastrostomy Diagnosis of Buried Bumper Syndrome: Decision Tree.
Available at: [🌐 https://www.bapen.org.uk/pdfs/decision-trees/buried-bumper-diagnosis.pdf](https://www.bapen.org.uk/pdfs/decision-trees/buried-bumper-diagnosis.pdf) (Accessed 10 June 2021).
- British Journal of Nursing .OJO, O. (2011) Balloon gastrostomy tubes for long-term feeding in the community. Vol 20(1):34-38.
- NICE (2006) Clinical Guideline 32 Nutrition Support for adults: Oral Nutrition support, enteral tube feeding and parenteral nutrition.
Available at: [🌐 https://www.nice.org.uk/Guidance/CG32](https://www.nice.org.uk/Guidance/CG32) (Accessed 10 June 2021).
- Nicholas et al (2015) First balloon gastrostomy changes in the community 12 weeks post stoma formation: an audit of outcomes. Abstracts / Clinical Nutrition ESPEN 10(5): ppe187 –e188.

Section 4 - Jejunostomy Tubes & Naso Jejunal Tubes (Post Pyloric Route for Enteral Nutrition)

Issues	Statement
4.1 Feeding via the jejunum	<p>Many patients can be successfully fed into the stomach. However, in those patients where this route is not achievable and in order to bypass the stomach, the enteral feed may be administered into the distal duodenum or jejunum (small bowel) via a feeding tube.</p> <p>These tubes are only placed or replaced in an acute setting.</p> <p>Percutaneous Endoscopic Jejunostomy is a method of placing a jejunal feeding tube into the jejunum via endoscope or mini-laparotomy.</p> <p>Percutaneous Endoscopic Gastrostomy with Jejunal Extension (PEGJ) / Transgastric Jejunostomy places a jejunal extension tube via an existing PEG tube via endoscope into the jejunum via the pylorus.</p> <p>These tube positions should be placed and confirmed radiologically.</p> <p>Surgical Needle Catheter / Surgical Jejunostomy (Balloon Retained Gastrostomy) Placed at surgical laparotomy or laparoscopically.</p>
4.2 Absolute contraindications to post pyloric Feeding	<p>Consideration should be made of the following which is not an exhaustive list.</p> <ul style="list-style-type: none">• Bowel obstruction, perforation or leakage• Patient refuses treatment. <p>Additional possible contraindications for post pyloric feeding tube but not for naso jejunal feeding are:</p> <ul style="list-style-type: none">• Significant ascites• Coagulopathy• Peritoneal dialysis and peritoneal metastatic disease• Morbid Obesity

4.3 Care following jejunostomy stoma formation

Clear documentation should be available stating when and where tube inserted, make, size, life expectancy of tube and removal procedure.

Observe site for swelling or bleeding. If present contact medical staff or GP.

Immersion bathing should be avoided for the first 14 days post insertion. Showering is permitted.

DO NOT ROTATE THE TUBE however some tubes may need to be advanced, follow manufacturers or enteral feeding nurse instruction.

At point of patients discharge Nutrition nurses are responsible for handing over inform re sutures and time frame. Contact Nutrition in first instance if any problems contact Enteral Feeding Nurses.

Following Jejunostomy tube placement:

- Remove dressing after 24 hours.
- For the first week following placement employ an aseptic technique when cleaning.
- Clean around the stoma site daily and dry thoroughly.
- Apply sterile film dressing.
- If the external fixator requires adjusting this should be undertaken by a clinician.

Surgical Needle Catheter

- Do not remove external sutures or release external fixator.


4.4 Daily Jejunostomy Stoma Care

Percutaneous Endoscopic Gastrostomy with Jejunal Extension (PEGJ)

- Any dressings applied should be removed after 24 hours.
- Clean the skin around the stoma daily and dry thoroughly.
- If the external fixator requires adjusting this should be undertaken by a clinician.

Transgastric Jejunostomy

- Site should be cleaned daily around stoma site.
- Check length of external tubing and record centimetre marking.
- If the external fixator requires adjusting this should be undertaken by a clinician.
- Check water volume in balloon weekly

<p>4.5 Removal of Jejunostomy tubes</p>	<p>Percutaneous Endoscopic Jejunostomy requires endoscopic removal.</p> <p>Percutaneous Endoscopic Gastrostomy with Jejunal Extension (PEGJ) - Following removal of jejunal extension tube, PEG should be removed by traction if retained by collapsible balloon or endoscopically if retained by rigid bolster.</p> <p>Transgastric Jejunostomy requires removal by traction following balloon deflation.</p> <p>Surgical Needle Catheter. Should be left in-situ for at least 4 weeks even if not feeding to allow establishment of a tract and the dissolution of the purse string suture, which anchors the tube. A trained practitioner should remove the tube after removal of sutures.</p> <p>Surgical Jejunostomy (Balloon retained gastrostomy) should be removed by traction following balloon deflation.</p> <p>All removals/changes must only be performed by competent clinicians in an acute setting only.</p>
<p>4.6 Jejunostomy Tube Displacement</p>	<p>If the tube comes out the stoma will begin to close within an hour, alert medical staff immediately. Patient to attend A&E if dislodged.</p>
<p>4.7 Frequency of Jejunostomy tube changes</p>	<p>Follow acute clinician instruction and refer to manufacturer's guidelines.</p>
<p>4.8 Naso Jejunal Tubes</p>	<p>Naso-jejunal (NJ) tube is one which is passed trans-nasally past the stomach into the jejunum (small bowel), with the tip sitting in the jejunum.</p> <p>Naso-Jejunal tubes require to be passed in the acute setting with radiological confirmation.</p>
<p>4.9 Care of Naso Jejunal Tube</p>	<p>Secure Naso-jejunal tube with nasal fixation tape and secure residual tube firmly to face.</p> <p>Clear documentation should be available stating when and where tube inserted, make, size, life expectancy of tube and removal procedure.</p> <p>Regular observation and documentation of patency and integrity of tube. Inform medical staff/nutrition team if there is any deviation from normal as this should be dealt with promptly.</p> <p>This information should be documented by acute as part of the Discharge information. See link to Home Enteral Feeding Algorithm.</p> <p> 15.0 HEF Algorithm FINAL.pdf (scot.nhs.uk)</p>

<p>4.10 Naso-jejunal tube position and displacement</p>	<p>Apart from radiology there is no reliable means of confirming tube position. Monitor for any signs of tube displacement. Inform medical staff if tube becomes displaced. In hours contact Enteral Feeding Nurses, OOH contact Medical Staff via NHS 24 The following checks should be performed in the community:</p> <ul style="list-style-type: none"> • Mark the position of the tube against the nostril daily using a permanent marker. • Check the length of the external tubing daily and record centimetre marking. • Measure and document external length of tube: Following tube placement and before administering feed/water/medications. • Observe patient for signs of abdominal distension, vomiting or aspiration – this could indicate tube migration back into the stomach. <p>Do not use tube until position is reconfirmed.</p>
<p>4.11 Frequency of changing naso-jejunal tube</p>	<p>Refer to manufacturer’s guidelines.</p>
<p>4.12 Flushing naso-jejunal tube for maintenance</p>	<p>Tube should be flushed with water with a minimum of 30mls before and after any use or disconnection (or as per dietetic regimen). Consider fluid volume if patient on fluid restriction, discuss with medical staff. Tube should be flushed every 4-6 hours when patient is not on feeding. If on continuous feeding flush as per manufacturers guidelines.</p>

<p>4.13 Complications of radiological Percutaneous Jejunostomy Post Insertion</p>	<p>Recognised complications include:</p> <ul style="list-style-type: none"> • Dislocation, obstruction or migration of the jejunostomy tube • Cutaneous or intra-abdominal abscess • Enterocutaneous fistula • Peritonitis • Haemorrhage • Pneumatosis • Tube Occlusion • Intestinal Ischemia
<p>4.14 Potential causes for tube occlusion</p>	<p>Potential Causes for tube occlusion may involve:</p> <ul style="list-style-type: none"> • Poor flushing techniques. • Inappropriate administration of medication such as pill fragments, viscous medications and thick feed formulas. • Formulation contamination that leads to coagulation. • Reflux of gastric or intestinal content up the tube. <p>A further contributory factor may be “kinking” of the tube due to too much tube being inserted and it double backs on itself. The operator should be aware of the manufacturer’s guidance on maximum length of the tube that should be inserted to avoid this happening.</p> <p>Preventing Tube Occlusion:</p> <ul style="list-style-type: none"> • Flush enteral feeding tube • Use liquid medication or soluble tablets whenever possible and these should only be given after establishing compatibilities /consulting with a clinical pharmacist (Further information can be found in Acute Nutrition Manual Section 5 Part 3, Administration of medicines via the enteral route). • Never mix medications together or with enteral feed. • Do not use acidic irritants such as cranberry juice or carbonated beverages to flush tube as this may actually contribute to tube clogging/blocking. Carbonated water can be used.

References

- NHS GGC Acute Nutrition Resource Manual.
Available at: [🌐 NHSGGC Nutrition Resource Manual \(scot.nhs.uk\)](https://www.scot.nhs.uk/nhs.uk) (Accessed 8th August 2022)

Additional Evidence

- BAPEN (2017) Administrating medicines via enteral feeding tubes.
Available at: [🌐 Medications \(bapen.org.uk\)](https://www.bapen.org.uk) (Accessed 10th June 2021)
- British Journal Nursing. Warriner L, Spruce P. (2012) Managing Overgranulation Tissue Around Gastrostomy Sites. Vol 3(09) pp. 514-524.
- NICE (2006) Nutrition support in adults – Oral nutrition support, enteral tube feeding and parenteral nutrition.
Available at: [🌐 https://www.nice.org.uk/Guidance/CG32](https://www.nice.org.uk/Guidance/CG32) (Accessed 10 June 2021).
- Overhagen, H and Schipper, J.(2004) Percutaneous jejunostomy. Semin Intervent Radiol. Vol 21(3), pp.199-204.
- White R, and Bradnam V. (2015) Handbook of Drug Administration Via Enteral Feeding Tubes. 3rd Edition. Pharmaceutical Press.

Section 5 - Naso-gastric Tube Guideline

Issue	Statement
5.1 Naso-gastric Guideline in Adults	<p>The NHSGGC Community Health and Social Care Partnerships Enteral Feeding Guidance on fine bore naso-gastric tubes have been produced by the NHSGGC Community Fluid, Food and Nutrition (FFN) Practice Development Team and the Community Enteral Feeding Group.</p> <p>This guidance optimises the care of adult patients (over 16 years of age) within NHSGGC Community Health and Social Care Partnerships (HSCPs) receiving artificial nutrition via a fine bore naso-gastric feeding tube.</p> <p>The Guideline can be accessed via the following link:</p> <p>🌐 Fine bore naso-gastric (NG) feeding tubes in adults, Community HSCP (496)</p>

Section 6 - Infection Control

Issue	Statement
6.1 Importance of infection control with enteral feeding	<p>This guidance is to assist in preventing infection associated with enteral feeding in NHSGGC Community HSCP's.</p> <p>Reference should be made to the NHS National Services Scotland Prevention and Infection Control Manual Ⓞ <u>http://www.nipcm.hps.scot.nhs.uk/</u></p> <p>Currently NG insertion and Gastrostomy Tube insertion are not classed as Aerosol Generating Procedures (AGP) however please check infection control link for further details.</p> <p>Enteral Nutrition is prescribed for people living in the community who cannot meet nutritional requirement orally. Patients may require enteral nutrition that meets all or part of their nutritional requirements depending on oral intake.</p> <p>Enteral feeds are liquids which are administered through an enteral feeding tube. The feed enters the body in one of four ways:</p> <ul style="list-style-type: none">• Through the nose to the stomach – nasogastric feeding• Through the nose to the small bowel – nasojejunal feeding• Directly into the stomach – gastrostomy feeding• Directly into the small bowel – jejunostomy or gastro-jejunal feeding <p>Enteral feeds normally contain nutrients that can support the growth of micro-organisms therefore it is essential that good practices are routinely followed to reduce the risk of microbial contamination and subsequent infection.</p>

<p>6.2 Hand hygiene, gloves and aprons</p>	<p>Hand hygiene is considered to be the single most important practice in reducing the transmission of infectious agents including Healthcare associated infections (HAI's) when providing care.</p> <p>Individuals involved in the care of enteral tube feeds should be adequately trained in all aspects of practice to minimise risk of infection.</p> <p>Hands should be washed, rinsed and dried or alcohol based hand rub may be used on visibly clean hands before handling enteral feed or enteral feeding systems.</p> <p>Non- sterile gloves and an apron should be worn.</p> <p>If a patient is managing to care for their own enteral feed or enteral feeding system, then it is not necessary for them to wear gloves but effective hand hygiene should be carried out.</p> <p>Family (informal) carers in the home situation are not required to wear protective clothing but must be aware that:</p> <ul style="list-style-type: none"> • Effective hand hygiene is important • Cuts and sores on their hands and forearms must be covered with waterproof dressing • Carers should not handle enteral feeds if they have evidence of any skin infections/vomiting or diarrhoea <p>Employees suffering from infections such as infected wounds, skin infections, sore throats, diarrhoea/ vomiting must be excluded from enteral tube feeding duties and advice sought from occupational health (in the first instance).</p>
<p>6.3 Enteral giving sets and syringes</p>	<p>Giving sets are a single use item and may only be used for a maximum of 24 hours (MHRA 2013).</p> <p>Disconnections should be kept to a minimum When there is a requirement for the system to be temporarily disconnected, it must be done at the patient end. Care should be taken to protect the giving set from contamination by replacing the cap provided with the giving set. Enteral giving sets must not be disconnected at the feed end except to change the feed reservoir.</p> <p>Syringes in community will normally be single patient use. They can therefore be washed and reused for up to 14 days as per manufacturer's guidance.</p> <p>On occasion patients may be provided with single use syringes if they are immune compromised. These syringes must be replaced after each episode of care.</p>
<p>6.4 Frequency of changing extension sets for low profile devices</p>	<p>Should not be re-used if marked 'single' only use</p> <p>For 'Single Patient Use' items these can be washed and reused for up to 14 days, follow manufacturers reprocessing instructions and guidance on frequency of changing.</p>

<p>6.5 Evidence of infection and reporting</p>	<p>It is important to be alert for any evidence of infection in patients receiving enteral feeding. Infections may be due to a number of causes including contaminated feed or equipment.</p>
<p>6.6 Feed storage</p>	<p>Re-constituted feeds (i.e. non-sterile feeds) should ideally be used immediately or suitably covered in a sterile container and refrigerated before use according to manufacturer's instructions. Reconstituted or opened packs of sterile feed should be discarded after 24 hours.</p>
<p>6.7 Hanging time for feeds</p>	<p>The period for which the opened or reconstituted enteral feed is administered at room temperature may be referred to as hanging time.</p> <ul style="list-style-type: none"> • Sterile ready-to-feed solutions can be administered for up to 24 hours if they have been stored and set-up in the correct manner • Reconstituted feeds can only be hung for up to 4 hours however advice should be sought for individual patients to allow for a practical feeding regimen. <p>Holding time (time that feed is held at room temp) should be taken into account.</p> <ul style="list-style-type: none"> • Time that opened feed is stored at room temperature • Time that opened feed is stored at room temp prior to decanting (if not refrigerated) • Time the decanted feed is stored in the nutrient container
<p>6.8 Decanting Feed</p>	<p>Where possible avoid decanting feed by using sterile pre-packed ready to use feed.</p> <p>If the feed has to be decanted the following is essential:</p> <ul style="list-style-type: none"> • A clean working area should be prepared, and dedicated equipment used • Crown or screw capped bottles should be used in preference to cans and tetrapacks (to reduce risk of contamination) • Visibly dirty bottles or cans should be washed under clean running water and dried with a disposable paper towel. • Before opening the container any parts of the outside surface which are likely to come into contact with the feed while it is being decanted should be thoroughly disinfected using either alcohol spray or a separate alcohol impregnated wipe for each container • All scissors, bottle openers etc which are used to open containers should be cleaned with hot soapy water and disinfected (use an alcohol wipe and allow to dry) before use • Any items used to open containers should be identified a solely for this purpose

6.9 Pump Cleaning	Consult manufacturer's instructions for use and decontamination advice Pump should be cleaned before and after each episode of use. The pump must be cleaned after blood and/or body fluid contamination in accordance with the National Infection Prevention and Control Manual.
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References

- Medicines and Healthcare Products Regulatory Agency (2013) Single use medical devices: implications and consequences for re-use. Available at: <https://www.gov.uk/government/publications/single-use-medical-devices-implications-and-consequences-of-re-use> (Accessed 8th August 2022).
- National Infection Prevention and Control Manual (2012) NHS National Services Scotland. Available at: <http://www.nipcm.hps.scot.nhs.uk/> (Accessed 8th August 2022).
- Todorovic, V & Mafirci B, (2018) A Pocket Guide to Clinical Nutrition. 5th Ed. Parenteral and Enteral Group of (PENG) of the British Dietetic Association.

Additional Evidence

- NICE Guidelines (2012) Healthcare-associated infections: prevention and control in primary and community care. Available at: <https://www.nice.org.uk/guidance> (Accessed 8th August 2022).
- NICE Guidelines (2014) Infection Prevention and Control. Available at: <https://www.nice.org.uk/guidance/qs61/resources/infection-prevention-and-control-pdf-2098782603205> (Accessed 8th August).
- RCN (2017) Essential Practice for Infection Prevention and Control. Available at: <https://www.rcn.org.uk/professional-development/publications/pub-005940> (Accessed 8th August 2022).

Section 7 - Oral Hygiene

Issue	Statement
7.1 Oral Hygiene	<p>Good oral hygiene should be maintained in patients receiving enteral tube feeding.</p> <p>Regular brushing of the teeth and gums must be encouraged to reduce the bacteria normally controlled by the saliva produced during eating. For patients who are allowed oral diet and fluids, normal hygiene associated with cleaning teeth after meals should be sufficient. For anyone unable to take oral diet and fluids, it is the responsibility of the nursing staff in hospital or community to ensure that oral hygiene is carried out every few hours if patient unable to manage. Teeth/dentures should be cleaned twice daily and the lips kept moist.</p> <p>For patients with naso-gastric/nasojunal feeding tubes, it is important to keep the nasal passages clean and clear. The patient's mouth and nose must be monitored daily for any signs of local infection. Treatment, if indicated, will depend on the type of infection (QIS 2005)</p>

References

- NHS QIS (2005) Best Practice Statement: Working with dependant older people to achieve good oral health. Available at: http://www.healthcareimprovementscotland.org/previous_resources/best_practice_statement/oral_health_in_older_people.aspx (Accessed 8th August 2022).

Additional Evidence

- SIGN (2010) Management of patients with stroke: identification and management of dysphagia. Available at: <https://www.sign.ac.uk/media/1057/sign119.pdf> (Accessed 8th August 2022).
- Caring for Smiles (2015): Oral care for Older People who need support: A guide for families. Available at: [Caring for Smiles: Guide for families \(scottishdental.org\)](http://www.scottishdental.org/caring-for-smiles) (Accessed 8th August 2022)

Section 8 - Medication Administration

Issue	Statement
8.1 Medicine Administration via the enteral feeding tube route	<p>Medicines sometimes have to be given via enteral feeding tubes</p> <p>The oral route is preferable, so ensure the patient is assessed before automatic medicines administration via feeding tube.</p> <p>Consider other routes e.g., transdermal, rectal etc.</p> <p>Use oral route if possible or consider other routes of administration. Buccal and sublingual tablets can be used, even if the patient is 'nil by mouth' providing they are producing saliva.</p> <p>If medication is to be administered via enteral feeding tube the prescription should be re-written to state the route and specify the form of product required.</p> <p>Recognised references should be used, or advice sought from a pharmacist before any medicine is prescribed or administered</p>
8.2 Prescribing consideration	<p>The patient's medicines should be reviewed to reduce unnecessary polypharmacy and ensure medicines are rationalised.</p> <p>Many medicines are not suitable or safe to be given via enteral tubes.</p> <p>A pharmacist can provide suitable advice. Licensed medicines should be used where available.</p>
8.3 Administration Technique	<p>Administer all medicines separately i.e. do not mix them in a syringe.</p> <p>Do not mix medicines with enteral feed.</p> <p>If medication is only available in tablet format check with a pharmacist that this can be crushed.</p> <p>It is usually not necessary to dilute liquid preparations before administration; however it is best to dilute syrups with an equal volume of sterile or cooled boiled water. If a syrup is one of several medicines being administered, it is preferable to administer the syrup last.</p> <p>When measuring oral liquid medication, use the syringe / medicine spoon/ medicine cup provided by pharmacy to ensure the accurate dose is measured.</p>

Decant this into the medicine cup and dilute with additional sterile/ cooled boiled water as required and draw up into 60 ml ENFIT syringe for administration into enteral feeding tube.

Use the same 60 ml ENFIT syringe for water flushes between medications to ensure the full dose of each medication is dispensed.

Flush tube with water before administering medications (30mls), between each medication (10mls) and after all medications has been given (30mls).

Consider timing of medication administration e.g. should it be given on an empty stomach.

Fluid restricted patients will need to have the volume of each flush recorded as part of their daily fluid intake.

Particular care should be taken when administering some medications via the enteral route e.g. phenytoin, quinolone antibiotics, theophylline

References

- BAPEN (2016) Medications.
Available at: [🌐 Medications \(bapen.org.uk\)](https://www.bapen.org.uk) (Accessed 8th August 2022)
- NHS GGC Nutrition Resource Manual: Administration of Medicine via the Enteral Route
Available at: [🌐 Microsoft Word - Foreword.doc \(scot.nhs.uk\)](https://www.scot.nhs.uk) (Accessed 8th August 2022)
- NPSA /2007/19 National Patient Safety Agency. Promoting safer measurement and administration of liquid medications via oral and other enteral routes.
Available at: [🌐 NRLS | 0408 | Promoting safer measurement and administration of liquid medicines via oral and other enteral routes: patient safety alert \(sps.nhs.uk\)](https://www.sps.nhs.uk)

Additional Evidence

- Wrexham Maelor Hospital Pharmacy Department. (2021) The NEWT Guidelines for administration of medication to patients with enteral feeding tubes or swallowing difficulties. 4th ed. North East Wales NHS Trust.
Available at: [🌐 NEWT Guidelines](https://www.newtguidelines.com)
- White, R and Bradam, V. (2015). Handbook of drug administration via enteral feeding tubes. 3rd ed. Pharmaceutical Press.

Section 9 - Discharge Planning

Issue	Statement
9.1 Discharge Planning	<p>When a patient receiving enteral tube feeding in hospital is medically stable, they may be considered for discharge back to their own home or residential care. If appropriate the patient should be trained and supported to self-manage their own feeding tube and feeding regimen. When they are not able to self-manage then the patient's family or health care agencies should be trained (BAPEN, 2016).</p> <p>🌐 15.0 HEF Algorithm FINAL.pdf (scot.nhs.uk)</p> <p>Please also refer to Clinical Portal Nutrition Nurse notes for information on patients enteral feeding discharge proforma. It is advisable to record this information on White card/patients notes.</p>

Additional Evidence

BAPEN (2016) Home Enteral Nutrition.

Available at: [🌐 https://www.bapen.org.uk/nutrition-support/enteral-nutrition/home-enteral-nutrition](https://www.bapen.org.uk/nutrition-support/enteral-nutrition/home-enteral-nutrition) (Accessed 10 June 2021).

Healthcare Improvement Scotland (2015) Complex Nutritional Care Standards.

Available at: [🌐 http://www.healthcareimprovementscotland.org/our_work/standards_and_guidelines/stnds/complex_nutrition_standards.aspx](http://www.healthcareimprovementscotland.org/our_work/standards_and_guidelines/stnds/complex_nutrition_standards.aspx) (Accessed: 8th August 2022).

Appendix 1: NHS GGC Community Procedure for planned replacement of Balloon Gastrostomy

Pre-placement Planning

Always check the patient's healthcare records before carrying out a gastrostomy replacement for any previous complications/considerations including:

- a deviated tract,
- previous pH readings of gastric aspirate,
- normal lifespan of the patient's gastrostomy tube.
- Replacement of gastrostomy tubes should only be undertaken by qualified healthcare professionals who are competent in the procedure.
- An established tract is patient specific but it is usually considered safe to change the gastrostomy tube 4-6 weeks after tract established and tube thereafter to be replaced 6 monthly (Maxwell et al 2011, cited in NNNG 2016).
- When gastrostomy change is planned, and to minimise the risk of gastric leakage, ensure the patient has been nil by mouth/ gastrostomy as follows:
Feed to **stop four hours before planned placement**. Patient can have clear fluids up to two hours prior to Balloon Gastrostomy Tube placement (Fletcher 2011, cited in NNNG 2016). On the proof this is a separate bullet but should be in the one section
- Feed to stop four hours before planned placement. Patient can have clear fluids up to two hours prior to Balloon Gastrostomy Tube placement (Fletcher 2011, cited in NNNG 2016).
- Only attempt (where possible) to plan to replace a balloon retained gastrostomy tube before 1pm (Mon–Fri) to ensure that if complications arise, the Community Enteral Feeding Nurse has sufficient time to discuss and/ or review the patient if required.
If an issue arises, please contact Unscheduled Care/ Community Partnerships Enteral Feeding Team Nurses: ☎ 07866 032 940 (Mon – Fri 08:30-16:00).

• Medication:

Essential medication should not be omitted pre-procedure without the support of the prescribing clinician. However, it may be advisable to omit medication that may affect the pH value of gastric aspirate, e.g., proton pump inhibitors (PPIs), before undertaking a balloon gastrostomy tube change.

Seek confirmation from the managing health care professional that all medication (which may affect the gastric pH) is omitted until post procedure to enable confirmation of correct gastric placement (NNNG 2016).

Pre- insertion Checks

- Before the existing tube is removed, check the pH of gastric aspirate.
- Please ensure the **pH level is between 1-5.5. Do not remove tube if the pH is above 5.5.** If pH is above 5.5, retest after 1 hour. If pH is still high after one hour please contact Unscheduled Care number for further advice.
- This is to ensure gastric content is of an acidic nature prior to removal of the tube. If the pH of gastric content is above pH of 5.5 and tube is changed, patient would require an admission to hospital for tubogram as pH would not be able to confirm position.
- Take note of the cm marking of the retention disc of the existing tube (withdraw tube until tension is felt from the balloon contacting the stomach wall and note cm marking on tube)
- Ensure that the tube is advancing 1-2 cm and rotating 360 degrees freely in the stoma tract.

Please note for non-aerosol generating procedures please follow general infection control procedures

Procedure

Equipment Required

***Check equipment is within the expiry date and undamaged**

- Community dressing pack
- Replacement gastrostomy tube of similar French gauge size
- Sterile water volume - balloon volume is printed on inflation valve of gastrostomy tube
- 2x Luer slip syringes (ensure size of syringe reflects balloon volume)
- Water soluble lubricating gel
- Skin cleansing agent (5mls of tap water to clean G tube stoma site)
- Home Enfit 60ml syringes
- CE marked pH indicator strips (to test human gastric aspirate)
- Cooled boiled water/ sterile water for flushing
- Clean disposable gloves

Preparation of Equipment

1. **Social hand wash**
2. **Put on apron**
3. **Explain procedure to patient and obtain consent to proceed**
4. **Clean surface – arrange clean area within home setting**
5. **Open outer cover of community dressing pack**
6. **Apply alcohol hand rub and allow to dry**
7. **Open out further the community dressing pack - this will be your clean area (in the proof there is an extra space between your clean)**
8. **Open replacement gastrostomy tube, syringes, cleansing solution, lubricating gel and pH indicator strip, and place onto the clean area. Open sterile water and place to side of clean area.**

9. **Apply alcohol hand rub and allow to dry. Put on clean disposable gloves.**
10. **Aspirate sample to be tested - Remove 1 test strip, cover all test fields with sample. Wait 10-60 seconds until colour no longer changes. Remove excess liquid. Compare test fields to colour scale and read off corresponding pH value.**
11. **Using one Luer slip syringe, draw up balloon volume of water as stated on the inflation valve and place back onto clean area.**

Inspect Gastrostomy tube prior to use:

- Fill the balloon with corresponding volume of water prior to placement, checking for uniform shape and no leakages.
 - Deflate the balloon after inspection.
 - Check the retention disc slides up and down the shaft of the tube.
 - Return the retention disc to 2 cm beyond the noted cm marking in pre-placement check, i.e. if retention disc sitting at abdominal level of 4cm of existing gastrostomy tube, return retention disc to 6cm on the tube to be inserted.
12. **Clean the stoma tract exit site and dry.**
 13. **Direction for removal of existing gastrostomy tube**
 - Take second/empty Luer slip syringe, place on inflation port and completely deflate the balloon of water.
 - Place swab over exit site in case of exudate.
 - Apply gentle pressure and pull the tube until it exits the stoma tract, observing tract direction.
 14. **Direction for replacement gastrostomy tube insertion**
 - Lubricate tip of new tube and gently guide into stoma tract following previously observed direction in tract. Insert to pre – set retention disc level (step 11), hold in place and inflate new balloon with pre-filled Luer slip syringe (one used to check balloon prior to insertion).
 - After balloon inflation, clean and dry the stoma tract.

- Withdraw the tube until tension is felt from the balloon contacting the stomach wall.
- Slide retention disc down the shaft until there is a space of 2-5 mm between the stoma and the retention disc.

15. Confirming the position of gastrostomy tube

- Confirm position of gastrostomy tube by attaching home Enfit enteral syringe to connector and aspirating fluid through the tube.
- Remove syringe and apply aspirate onto pH indicator strip, covering all three coloured squares, allow any excess aspiration on indicator strip onto paper.
- Wait for the colour change process to complete as per manufacturer's instructions and compare pH indicator strip to chart on packaging.
- Read any corresponding colour change on pH indicator strip in manufacturer's stated time frame.
- If pH less than or equal to 5.5, proceed to feed or use tube for medication/hydration.
- If patient able to drink ask patient to take small drink of water.

If no aspirate obtained or pH greater than 5.5 wait 1 hour and retest - do not use tube and contact Unscheduled Care number Community Partnerships Enteral Feeding Team Nurses on: ☎ 07866 032 940 for further advice

16. Dispose of waste according to NHSGGC policy

17. Social hand wash

18. Document:

- Make, French size, Lot number and expiry date.
- Water volume in balloon.
- Insertion cm markings.
- pH level, confirming gastric placement.
- Any issues experienced during the procedure.

- Record in Community Nursing Information System (CNIS) or appropriate nursing notes/clinical care record and reschedule planned care to include date of next tube change if appropriate.

Ensure patient/carer aware of any possible complications and what to do if any occur.

Caution:

When percutaneously inserting a gastrostomy tube always monitor for potential problems including leakage of gastric contents, bleeding and pain as outlined in NPSA (2012) RRR. Once the gastrostomy tube is inserted past the cm marker recorded on the previous tube, inflate the balloon (as per manufacturer's instructions) with sterile/cooled boiled water through the inflation valve. Monitor patient comfort during the insertion procedure.

There have been reports of balloon inflation within the tract. If the patient reports discomfort consider deflating the balloon and inserting the gastrostomy tube into the abdomen another 1-2 cm's. Then re-inflate the balloon. (NNNG).

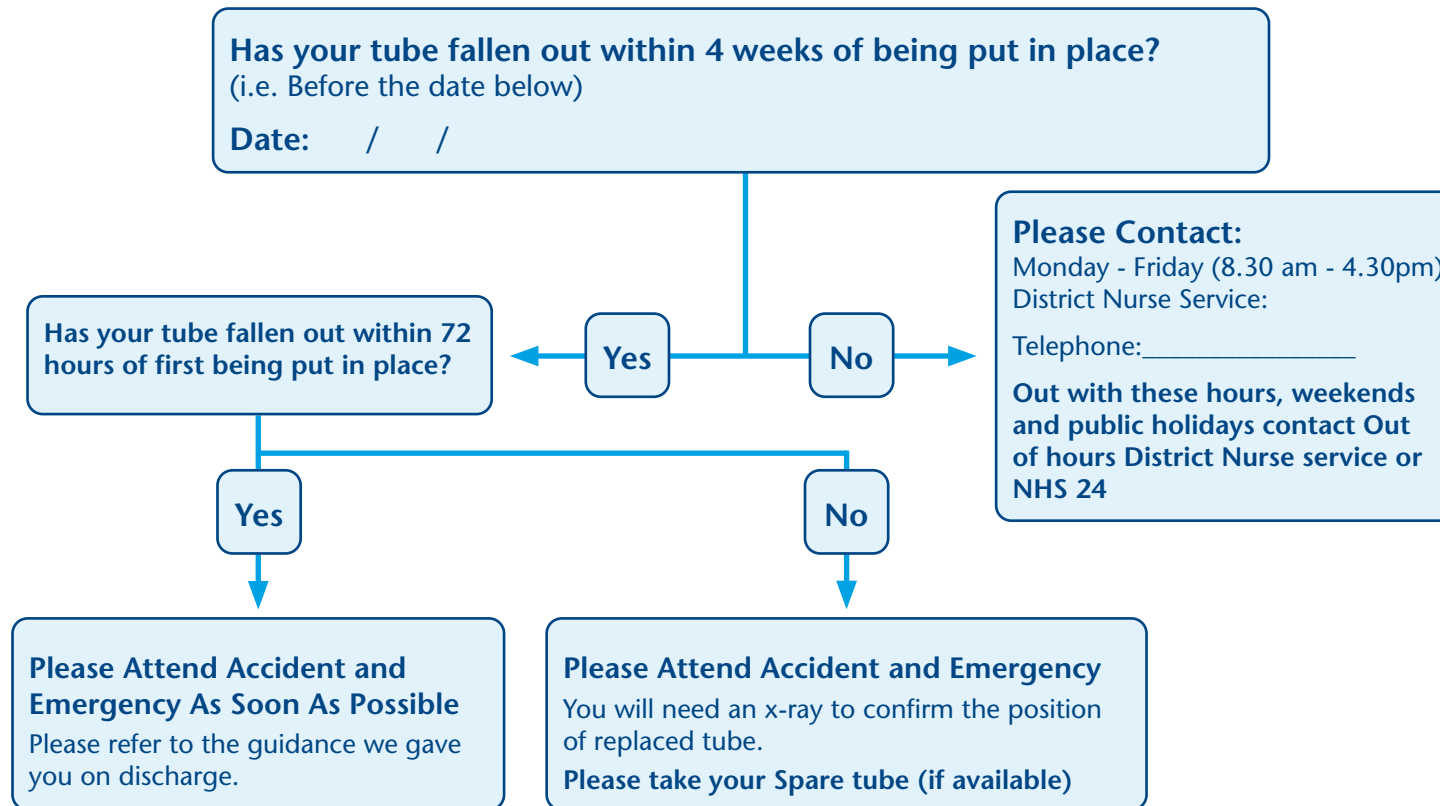
Only attempt (where possible) to plan to replace a balloon retained gastrostomy tube before 1pm (Mon-Thurs) to ensure that if complications arise, the Community Enteral Feeding Nurse has sufficient time to discuss and/ or review the patient if required.

References:

NNNG (2016) Good Practice Guideline Changing of a Balloon Gastrostomy Tube (BGT) into the Stomach for Adults and Children Available from: <http://www.nnng.org.uk/wp-content/uploads/2016/10/Good-practice-changing-a-gastrostomy-tube-Update-October-2016.pdf> {accessed 10th January 2017}

Appendix 2: Guidance if your Gastrostomy Tube accidentally falls out

If your tube accidentally falls out then **Do Not Panic**. Place a clean dry pad over the opening in your skin.



The falling out of your tube is not a life threatening or a medical emergency. However, it does require attention quickly. If there is a delay in getting help then the tract (opening in the skin) may close.

If the tract closes you will need another procedure to re-insert the tube.

Please see your Home Enteral Feeding Regimen for information about your tube placement including, make, size and how it was inserted.

Useful contact numbers

Community Enteral Feeding Nurse (available Mon - Fri 8:30am - 4:30pm)

Telephone Number:	0141 531 6858
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Hospital Nutrition Nurse Numbers: (available Mon- Fri 8:30am - 4:30pm)

Hospital	Telephone Number	Hospital Switchboard to ask for Page	Page
Royal Alexandra Hospital	0141 314 7117	0141 887 9111	56589, 56590
Queen Elizabeth University Hospital, Gartnavel General Hospital Beatson	0141 201 1100	0141 201 1100 0141 211 3000 0141 301 7000	17167
Glasgow Royal Infirmary	0141 201 6558 0141 201 6559 0141 201 6560 0141 201 6561	0141 211 4000	13887; 15263; 12121; 15036

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