Plymouth Hospitals NHS Trust and Plymouth Community Healthcare CIC

Adult Enteral Tube Feeding Guidelines

Version No 1.8

Notice to staff using a paper copy of this guidance

The policies and procedures page of StaffNET holds the most recent version of this guidance. Staff must ensure they are using the most recent guidance.

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1. **Document Aims**

- To provide comprehensive guidance for evidence based practice regarding nasogastric and gastrostomy tube feeding in adults to Healthcare staff caring for adult patients who require nasogastric or gastrostomy feeding, so that safe and effective feeding can be provided according to their clinical need.

- To facilitate and improve the organisation and quality of care for adult patients requiring nasogastric, gastrostomy, feeding across Plymouth Hospitals NHS Trust (PHNT) and Plymouth Community Healthcare (CIC).

- To clearly outline the role of each Healthcare Professional in supporting patients receiving nasogastric and gastrostomy feeding.

It has been produced by Dietitians and Healthcare Professionals in Plymouth Hospitals NHS Trust and Plymouth Community Healthcare (CIC) to assist in successful enteral tube feeding in Derriford Hospital, Community Hospitals and at home including nursing and residential homes.

This document does not negate the need for dietetic assessment of each individual patient requiring nasogastric and gastrostomy feeding but should be used as a reference guide by all members of the Healthcare Team.

2. **Achieving Safe and Effective Enteral Feeding**

1. All relevant Healthcare staff involved in the provision of enteral nutrition support should be trained in its provision, in the care of the enteral feeding tube and the stoma site.

2. All patients requiring enteral tube feeding should be referred to a Dietitian who will plan, monitor and evaluate their treatment.

3. All patients should receive the prescribed feed and correct volume of feed.

4. All patients requiring home enteral feeding and/or carers should be trained in the provision of enteral tube feeding, care of the enteral feeding tube and stoma site.

3. **Enteral Tube Feeding**

**Definition:** Enteral tube feeding refers to the delivery of a tube feed into the gut via a tube. It should be considered in people who are malnourished or at risk of malnutrition and have unsafe or inadequate oral intake and a functional accessible gastrointestinal tract (NICE 2006).

3.1 **Indications for Enteral Tube Feeding**
- Unconscious.
- Neuromuscular swallowing disorder.
- Physiological anorexia e.g. cancer, sepsis, HIV.
- Upper GI obstruction.
- GI dysfunction or malabsorption.
- Increased nutritional requirements e.g. cystic fibrosis.
- Psychological problems e.g. anorexia nervosa.
- Mental Health e.g. dementia (NICE 2006).

### 3.2 Choice of Feeding Route

The routes used for enteral tube feeding are:

- Nasogastric, Nasojejunal.
- Gastrostomy (including Percutaneous Endoscopic Gastrostomy (PEG), Radiological Inserted Gastrostomy (RIG), Replacement Devices – Low Profile Gastrostomy Tubes (LPGT) and Balloon Gastrostomy Tubes (BGT)).
- Jejunostomy (including Percutaneous Endoscopic Gastrojejunostomy and surgical jejunostomy).

The expected duration of feeding, clinical condition and opinion of the patient /carer all need to be considered when deciding which route to use.

**Note:** Gastric feeding only is covered in this document.

### 3.3 Enteral Feeding Equipment

The equipment required for feeding may include:

- Feeding tube.
- Replacement tubes (Balloon Gastrostomy Tubes and Low Profile Gastrostomy Devices).
- Extension sets.
- Giving sets.
- Feed.
- Pump.
- Syringes.
- Sterile feed container.
- pH indicator strips.
- Tape.

The type of tube that has been inserted should always be indicated in the patients’ medical/ discharge notes. If this information is not included, the discharging/ Endoscopy unit should be contacted.
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4. **Infection Control and Enteral Tube Feeding**

4.1 **Procedures for Infection Control in Enteral Tube Feeding**

- Wash hands before and after handling feeding equipment, non-sterile gloves and apron should be worn.

- Pre-packaged sterile feeds which are ready-to-hang should be used wherever possible. Feed can be hung for a maximum of 24 hours provided a clean technique is used to ensure no microorganisms are introduced when the feeding system is assembled. A non-touch technique should be used when opening and decanting feeds.

- Label feed and administration set with start time and date.

- Ready-to-use feeds should be stored in a clean dry environment protected from extremes of temperature. Stock should be rotated to avoid feeds exceeding their best before date.

- Enteral syringes are deemed to be single use items; discard after each use (PHNT and NHS Plymouth policy 2007). This does not include reusable syringes i.e. Baxa reusable syringes. These may be used in the home setting. Enteral syringes that cannot be connected to intravenous catheters or ports only should be used for administering drugs or water.

**Water:**
- The first water bolus through a newly placed gastrostomy tube should be sterile.

- Freshly drawn tap water may be used for all subsequent boluses/tube flushes.

- Sterile water should be used for all for immuno-compromised patients. Cooled boiled water may be used at home.

**Decanting feeds:**

Avoid decanting whenever possible but if necessary follow the guidelines below.

- **Sterile feeds** e.g. EO28 liquid feed, decant the total feed volume into the reservoir at the start of the 24-hour feeding period. A clean technique is essential to ensure no microorganisms are introduced when the feeding system is assembled.

- **Non-sterile feeds** e.g. reconstituted EO28 powder, 24 hours feed may be mixed and stored covered in the refrigerator at less than 4 degrees Centigrade for 24 hours. Feed should be mixed using cooled boiled water or freshly opened sterile water and a no touch technique. Hanging non-sterile feed at room temperature for more than 4 hours should be avoided. Feed reservoir administration sets should be changed every 4 hours.

4.2 **Preventing the Spread of Infection**

Refer to the Essential steps to safe clean care: Preventing the spread of infection (NHS).

5 **Adult Nasogastric Tube Insertion Procedure & Management Policy**

Refer to the Full Adult Nasogastric Tube Insertion Procedure and Management Policy available on the StaffNET PHNT Trust Documents No TRW.CLI.POL.395.3

Also see Appendices A-D in the full policy document:

6 **Gastrostomy Feeding**

6.1 **Placement of a Gastrostomy Feeding Tube**

The decision to place a gastrostomy tube needs to be multidisciplinary, involving the Consultant /General Practitioner, patient /family members and other Healthcare
Professionals directly concerned with the care of the patient e.g. Dietitian, Speech and Language Therapist, Nursing staff.

**Gastrostomy tubes**

*Percutaneous Endoscopic Gastrostomy (PEG)*

These tubes are inserted via Endoscopy with appropriate sedation and local anaesthesia. The most commonly used PEG within the Trust is the Fresenius Kabi Freka. This can be removed when no longer required using an endoscope. They should only be changed if they become problematic or damaged. Occasionally, a Merck Corflo PEG is inserted. This tube is traction removable and can be removed at the bedside.

Following PEG placement, patients may be discharged home from the Endoscopy department if not already an existing inpatient (see PEG pathway Appendix 1).

*Radiologically Inserted Gastrostomy (RIG)*

This tube is placed under radiological guidance directly into the stomach. It is used usually for patients who are unable to have an endoscopy.

For RIG placement, admission to Derriford Hospital is required as a day case (see RIG pathway Appendix 2).

*Balloon Retained Gastrostomy*

This tube is held in place by a balloon that is inflated with 5-20 ml of water and requires replacement approximately every 4 months or as clinically appropriate. They can be replaced at the bedside through an established tract.

From September 2016, all enteral feeding tubes will comply with the ISO/DIS 18250-3 Connectors for reservoir delivery systems for healthcare applications – Part 3: Enteral Applications (EnFIT). This will ensure that enteral devices are only compatible with enteral connectors. A transition period of one year commenced September 2015-September 2016 where existing PEG ends, and RIG devices will be changed to ensure a compatible end with transition sets created while this process happens.

6.2 **Procedure for Care for a Percutaneous Endoscopic Gastrostomy (PEG)**

See Appendix 6

**Tube Types**

Freka (Fresenius Kabi) or Corflo (Merck).

A PEG tube may stay in place for as long as it is comfortable and continues to work well.

6.3 **Procedure for Care for Balloon Gastrostomy Tube**

See Appendix 7
6.4 Procedure for care of a Low Profile Gastrostomy Device (LPGD)  
See Appendix 7  

**Tube Types**  
Mic-Key (Vygon)  
CuBBy (Merck)  

LPGD should be replaced every 4 months  

**EXTENSION SETS SHOULD BE WASHED IN WARM SOAPY WATER, RINSED WITH TAP WATER AND LEFT TO AIR DRY BETWEEN USES.**  

- Extension sets are classified as single patient use. Sets should be replaced every 2-4 weeks dependent on integrity and functionality. These extension sets are essential for use with a LPGD, and must be the correct version for the tube.

6.5 Procedure for Care of Infection and Overgranulation of a Gastrostomy Exit Site and Leakage of Gastric Contents  

If a gastrostomy site becomes red and inflamed the cause needs to be identified so that appropriate treatment can be given. Leakage of gastric contents can excoriate the skin and present in a similar way to an infected site. CE marked pH paper can be used to see if discharge is exudate from an infected site or leaking stomach contents, which would have a pH of 5 or less.  

Complications can occur if the tube is not properly tensioned or cared for so it is important to make sure that daily and weekly care are being carried out effectively. Abscesses can form in the tract of a gastrostomy tube or internally. This could present as, pyrexia, exudate, odour and inflammation and pain when the tube is moved. It is vital to have a complete overview of a patient's general health and symptoms to facilitate discussion and arrange treatment with their GP or medical team.  

**Suspected Infected Site**
Send a wound swab for MC&S and fungal screen. Systemic antibiotics may be required. Discuss with the patient’s medical team or GP. If the site looks infected on clinical examination commence care plan while awaiting swab results. Consider results of swab and treat with antibiotics according to sensitivities.

Does wound swab isolate infection?

**YES**

Treat with systemic antibiotics according to sensitivities and follow prescription chart until symptoms resolve.

**NO**

If swab result is negative but clinical examination indicates infection follow prescription chart until symptoms resolve. If infection is suspected and the site does not respond to treatment re-swab and discuss with GP/medics. Broad spectrum antibiotics may be required.
TREATMENT CHART FOR SUSPECTED INFECTION

**Acute Infections**
Apply antimicrobial dressing to affected area, change dressing daily.
Aquacel AG 5cm x 5cm (can be cut to fit around tube)

**Other dressing options:**
Actisorb Silver (9.5 x 6.5 or 10.5 x 19cm) TO BE FOLDED, NOT CUT (Knitted fabric of activated charcoal with silver residues)
Prontosan Irrigation Fluid (40ml) (polyhexanide). Soak gauze and place on gastrostomy stoma for 15 minutes. Follow with normal dressing e.g aquacel AG 5x5cm.

**CHANGE DRESSING DAILY**

If area not improving after 2 weeks consider using creams

Apply appropriate cream to area for 10-14 days.
Trimovate Cream Apply thinly 1-2 times daily (steroidal, anti-bacterial and anti-fungal cream)
Fucidin Cream or Ointment Apply 3-4 times daily (treats staphylococcal infection but resistance a problem due to inappropriate use, so only use if indicated)

**Chronic Recurrent Infections**
Patients with gastrostomy tubes where the ‘plastic’ has become colonised by bacteria will require longer term management. Options should be discussed with the GP e.g efficacy of tube replacement vs ongoing treatment with antibiotics and topical treatments.
Overgranulation at the gastrostomy exit site

Overgranulation presents as a red/pink mound at the border of the stoma. It bleeds easily and can be associated with a low grade infection or with excessive movement of the tube.

Send a wound swab for MC&S and fungal screen.
Follow initial steps for suspected infected site and follow treatment chart for Overgranulation

TREATMENT CHART FOR OVERGRANULATION

Apply antimicrobial dressing to area either doubled up or with a second layer of polyurethane foam dressing (such as Lyofoam) for double thickness.

Dressing options:
Aquacel AG 5cm x 5cm (can be cut to fit around tube)
Prontosan Irrigation Fluid (40ml) (polyhexanide). Soak gauze and place on gastrostomy stoma for 15 minutes. Follow with normal dressing e.g double thickness lyofoam

CHANGE DRESSING DAILY

If no improvement after 10-14 days or if dressing cannot be applied directly to the area of overgranulation

Apply Hydrocrotisone cream 1% thinly to clean, dry, overgranulated area (not surrounding skin) twice daily for 7-10 days
If antimicrobial dressing and Hydrocortisone do not improve the overgranulation, consider the following treatment options.

**FURTHER TREATMENT OPTIONS FOR OVERGRANULATION**  
(non licenced)

**Haelan Tape** (impregnated with steroid)  
Cut tape to fit lesion, apply to clean, dry area for 12 hours.  
Change daily. Try for up to 5 days

**Maxitrol drops** (steroidal and bactericidal)  
3-4 drops to be applied twice daily, only to area of overgranulation. Allow each drop to absorb before applying the next. Any drops that fall on healthy skin should be wiped immediately. Try for up to 5 days

**Dermovate cream** (potent corticosteroid)  
Apply 1-2 times daily for 4 weeks max

**Trimovate cream** (steroidal, antifungal and bactericidal)  
Apply thinly 1-2 times daily for 1 week and review.

If overgranulation persists in spite of treatment, refer to Medical Practitioner or the Tissue Viability Nurse.
Sore excoriated site caused by leakage of gastric contents

Stomach acid will burn the skin on contact. Ensure gastrostomy tubes are properly tensioned with the internal bumper/balloon up against the internal stomach wall to reduce leakage to a minimum. Leaking stomach contents if checked with CE marked pH paper, would have a pH of 5 or less.

**TREATMENT CHART FOR LEAKAGE OF GASTRIC CONTENTS**

Apply **Derma S or Cavilon Barrier film** to clean, dry site, allow to dry. Renew every 2-3 days. If leakage is severe barrier film may need to be applied daily.

If extra protection or absorption needed

Use a non-adhesive, absorptive dressing such as **Active Heal Non-Adherent Foam Dressing** or a protective dressing such as **Tegaderm** over dried Cavilon Barrier film.

**Hydrogel** can be applied to excoriated area. **Proshield** (on formulary) also used frequently by District nurses and tissue viability specialist nurses.

If gastric leakage is severe dressings may need to be replaced more than once every 24 hours.

7. **Commencing Enteral Feeding**
• All patients requiring enteral feeding should be referred to the Dietitian to establish the patients' nutritional requirements and to obtain an accurate prescription of enteral feed e.g. feed type, volume.

• If it is not possible for a Dietitian to assess patient requirements prior to feeding, guidelines for commencing nasogastric and gastrostomy feeding are available in the ward nutrition file (Derriford Hospital) and on StaffNET.

Nasogastric Feeding

Feeding can commence once correct position of the tube has been confirmed and results recorded on relevant documents and appropriate feeding regime in place.

Gastrostomy Feeding

The feeding tube should not be used for 4 hours after placement to allow recovery from sedation. Usually feeding is commenced following flushing the tube with sterile water.

All patients will require nursing care and educational input following tube placement to ensure that the gastrostomy tube is working correctly and that the patient or carer is familiar with the equipment and feed administration.

7.1 Administration of Enteral Feeds

The majority of enteral tube feeds are delivered using enteral feeding pumps. The feed may be administered continuously (over 24 hours) or may be given intermittently during a 24-hour period. If the patient is conscious and mobile intermittent feeding is usually the preferred method as this allows the patient to have a break from feeding.

Gravity Bolus feeding using either a syringe or gravity bolus feeding set is a perfectly acceptable delivery method either as ‘top up’ nutrition, in the short term if problems arise with the pump, or longer term as a preferred method by some patients.

7.2 Administration of Water

Water may be administered via an enteral feeding tube for:-
• Hydration.
• Prevention of tube blockages.
• Prevention of drug-nutrient or drug- drug interactions.

The type of water depends on the patients' clinical condition and the route of administration. Patients with nasogastric or gastrostomy tubes can be given freshly drawn drinking tap water. Immunocompromised patients should receive sterile water in hospital and be advised to use cooled boiled water at home.

7.3 Procedure for Administering Continuous Enteral Feeding
Clinical Equipment List

Non-sterile gloves and apron.
NOTE: This is hospital/community care staff only. Patients administering their own feed at home are not asked to wear gloves or aprons but should follow hand washing guidelines.
Enteral feeding pump and stand.
Prescribed enteral tube feed.
Giving Set.
60ml Enteral syringe (purple).

For Nasogastric feeding:

pH indicator strips Merck CE mark 0-6.
Fine bore nasogastric tube (labelled for enteral use).

Method

Follow the guidelines for infection control (section 4.0).

- For nasogastric tubes, check the pH of the gastric aspirate. Document result. Do not feed if result is above 5.5.
- Check the feed is in date. Gently invert the bag to mix any settled contents.
- Close the clamp on the giving set and spike the giving set into the Easybag.
- Place the clamped section of giving set into its housing in the pump and prime the giving set.
- Open the clamp on the feeding tube (not NG). Flush the tube with water as per the feeding regime. Close the clamp.
- Remove the adapter or adapter cover and connect the administration set to the feeding tube (depending on which port is used).
- Set the pump rate and dose and set the pump to run.
- When the feed is complete, flush the tube immediately with water as per the feeding regime.
- Re-clamp (not NG) and re-cap the tube.
- Discard used equipment.

7.4 Procedure for Administering a Bolus Feed

Clinical Equipment List

1 x 60ml Enteral Syringe (purple).
Bolus Adaptor easybag.
Easybag/bottle of feed.
Freshly drawn drinking tap water.
Non-Sterile Gloves and Apron.
NOTE: This is hospital/community care staff only. Patients administering their own feed at home are not asked to wear gloves or aprons but should follow hand washing guidelines.
For Nasogastric tubes you will also need:

pH indicator strips Merck CE 0-6

Method

1. Patient must be supported in a sitting position of a minimum of 45°.
2. Patient must be supervised at all times.
3. Follow the guidelines for infection control (section 4.0).
4. For nasogastric tubes, check the pH of the gastric aspirate. Record result on all relevant NGT documentation. Do not feed if result is above 5.5.
5. Using the enteral syringe (with plunger) flush the feeding tube with water as per the feeding regime. Close clip on feeding tube and remove the syringe.
6. Remove the plunger from the enteral syringe and reconnect the barrel of the syringe to the feeding tube.
7. Attach Easybag bolus adaptor to the Easybag of feed. Open the end of the bolus adaptor.
8. Pour the amount of feed required into the syringe. Do not attempt to rush the feed, administer no faster than 50mls of feed every 3 minutes.
9. If the feed is running too slowly either lift the syringe higher or put the plunger back into the syringe and push the feed down the tube slowly.
10. When the prescribed amount of feed has been administered flush the tube with water as per the feeding regime then re-clamp and recap the tube end.

8 Administration of Medicines via an Enteral Feeding Tube.

Crushing tablets, opening capsules or giving any medicine down an enteral feeding tube are generally unlicensed routes of administration. Practitioners prescribing, advising or administering medicines in this way would be held responsible for any adverse effects that may occur because of this. However, only a prescriber (Doctor or Dentist) can authorise the use of medicines via this route. Therefore other practitioners (including pharmacists giving advice and nurses administering the medicine) in order to demonstrate they have acted professionally and competently, must ensure that:

- They obtain the consent of the patient.
- The prescriber is aware of and has sanctioned the unlicensed route of administration. Written authorisation should be provided by the prescriber on the hospital/community prescription chart.
- That the proposed method of administration is based on the most up to date evidence available and is justifiable in terms of the potential clinical benefits and risks. Nurses should seek the advice of a pharmacist and / or medicines information department to assure themselves on this point.
• All actions and instructions must be recorded in patient record.

• A pharmacist should review the patient’s prescription when a feeding tube is placed.

• Information may be obtained from clinical pharmacists at Derriford or the Plymouth Community Healthcare PCH as appropriate, or from Medicines Information, Pharmacy, Derriford. Direct line 01752 763405/Internal 53405/Bleep 349.

• Medications given through a feeding tube should be given using a 60ml enteral syringe. The enteral syringe may be connected directly to the feeding tube or to the side port of an NPSA compliant giving set. Only syringes which are oral or enteral and clearly labelled should be used to give medicines via enteral feeding tubes or the side port of an NPSA compliant giving set. Never use syringes that allow connection to intravenous (or other parenteral) catheters or ports. From September 2016, all enteral syringes will only be compatible with enteral tube connections (ISO/DIS 18250-3 Connectors for reservoir delivery systems for healthcare applications -- Part 3: Enteral applications)

• Avoid the use of catheter tip syringes for measuring small volumes as dosing errors may occur. Smaller syringes may be used if dose measurement is critical. Solutions should be prepared and administered immediately to maintain stability and quality of the solution, and minimise the risk of inadvertent administration by other routes.

• All oral or enteral syringes containing oral liquid medicines must be labelled (by the person who prepared the syringe) with the name and strength of the medicine, the patient’s name and the date and time it was prepared, UNLESS the preparation and administration is one uninterrupted process and the unlabelled syringe does not leave the hands of the person who has prepared it. Only one unlabelled syringe should be handled at any one time.

• Medication should not be added while the feed is running. Stop the feed, give a minimum of 30ml water flush using a 60ml enteral syringe and then give the drug(s) as below. Give a final flush of water (Minimum of 30mls) before re-starting the feed.

Choice of formulation

• Where patients are not nil by mouth and are able to swallow their medication, avoid using the feeding tube as a route of administration. Any medication given orally to patients should only be in consistencies recommended by the Speech and Language Therapist. Administration of medicines in this way should also be checked with the pharmacist.
• Any unnecessary medicines should be stopped.

• Wherever possible, appropriate liquid formulations should be used. If liquids are very viscous, they can be diluted with tap water* (at room temperature) immediately before administration.

• Solutions (rather than suspensions) or soluble tablets (not dispersible / effervescent) are the formulations of choice.

• Do not assume liquid formulations will be suitable- check with a pharmacist before use. This warning also applies to dilution with tap water*, as in a few cases this isn’t appropriate.

• Alternative formulations should be considered – e.g. patches, sublingual tablets. In some case a similar drug may be available in a more suitable formulation.

• Dispersible/effervescent formulations may not always be appropriate as they can contain significant amounts of sodium, and often require large volumes of water.

• Changes in formulation may require a change in dose or frequency. A change to a liquid formulation or crushing / opening tablets or capsules may also lead to differences in the dose the patient absorbs, so dose adjustments may be needed. The patient should be monitored for the expected clinical effect of the medicines.

• If the end of the tube is in the jejunum, it may be necessary to consider the site of drug absorption and adjust the dose or drug accordingly.

• If alternative formulations are not suitable, the pharmacist should advise about crushing tablets or opening capsules. Do not crush tablets or open capsules without consulting a pharmacist.

• If used tablets must be crushed using a pestle and mortar or a ‘crushing syringe’ which is designed for the purpose. Other implements may be incompatible with some medications. The pestle and mortar should be washed with warm water after each use.

• In general, enteric-coated tablets/capsules are unsuitable for crushing/opening, and most modified release preparations are unsuitable. Cytotoxic preparations and hormones should not be crushed /opened.

Preparing the medicine for administration

• Many tablets will disperse in water after a few minutes, even if they are not labelled as ‘soluble’ or ‘dispersible’. 10 – 15ml of tap water is sufficient for this. A similar amount of water should be used if the tablet needs to be crushed. The
container used should be rinsed with more water and the rinsings also given to the patient. Consult a pharmacist.

- Tablets which disperse in water can be prepared for administration using just an enteral syringe – put the tablet in the barrel of the syringe, replace the plunger, draw 10ml water into the syringe, allow the tablet to disperse, shaking if needed, and then give the dose. Draw another 10ml of water into the syringe and give that as well.

**Administration of medicines**

- Medication should **not** be added while the feed is running. Stop the feed, give a 30ml flush with water and then give the drug(s) as below. Give another 30ml flush before re-starting the feed.

- Tablets may be prepared in tap water at room temperature. There is no advantage in using warm water and the drug may not be stable in this.

- If the tube is in the jejunum, sterile water should be used for dilution and flushes.

- **Do not mix** medicines to be given at the same time; prepare each one separately. This avoids reactions between the medicines and reduces the risk of tube blockage. If more than one drug is to be given, at least 10ml water should be used to flush between each.

- Volumes used to flush tubes may need to be reduced if patients are fluid restricted. Flushes must also be used when liquid medicines are given.

- Volumes used for flushing may need to be documented on fluid charts.

- If medicines need to be given on an empty stomach, the feed should be stopped 1 hour before the dose is given, and re-started an hour after the dose. Please advise the dietitian, who will establish a feeding regimen to accommodate this.

- Drug-feed interactions. Some drugs, including phenytoin, interact with enteral feeds, and a longer feed-free period will be needed. The pharmacist and dietitian should determine the best feed regimen for the patient.

**Discharge from hospital**

- If the patient is discharged from hospital with the tube in place, the nurse/pharmacist should ensure that the patient or carer is familiar with the administration of the medicines and flushes, and that any changes in medicines have been discussed with the GP, community pharmacist and any other appropriate healthcare staff.
When patients or carers need to administer oral liquid medicines (or dissolved tablets) with a syringe, ensure they are supplied with only oral or enteral syringes.

See BAPEN website for further information on Administering Drugs via Enteral Feeding Tubes. BAPEN | Resources | Drug administration via enteral feeding tube. Please also see PCH Single Use Policy.

9 Trouble Shooting Guidelines

9.1 Enteral Feeding Tube Blockage: Causes and Prevention

Causes:
1. Feed clotting in the tube.
2. Extended rest period.
3. Not flushing tube after bottle is completed or temporarily stopped.
4. Medications.
5. Feed rate of administration less than 50mls/hr.
6. Highly viscous feeds e.g. high energy or specialist feeds can block the tube.
7. Failing feeding tube.

Prevention:
1. The tube should be flushed with a minimum of 30mls freshly drawn tap water after each bottle of feed, after each rest period and before and after giving any medication (water flushes will vary depending on patients fluid requirements (usually 30 – 150mls). Check the Dietitian’ recommendation. Regularly massage tube between fingers to help cleanse build-up of feed on inner lumen of the tube.
2. If pump rate is less than 50mls / hour feed can easily clot in the tube, so extra flushes of water should be given e.g. 50-150mls water 4 hourly.
3. Crushed medications should not be given down the tube (see section 7.0).

9.2 Procedure for Irrigating a Blocked Enteral Feeding Tube

If the blockage is in the giving set – replace.

Otherwise:
1. Massage the tube between fingers to mechanically dislodge debris. Flush tube with 50mls warm water using a 60ml enteral syringe applying consistent pressure.
2. If blockage remains obtain "Clog zapper®" from the Endoscopy Department or Nutrition Nurse Specialist Derriford Hospital. Patients at home to contact District Nurse/ HEF Dietitian/ HEF nurse/ Endoscopy Department Derriford Hospital.

Follow the manufacturer's instructions.

Avoid irrigation with ‘Coke’ or lemonade (acid), which may curdle feed residue and
damage the tube.

**NB** Consider reason for blockage; take action to avoid further problems.

**9.3 Nausea, Vomiting and Abdominal Distension (Derriford Hospital Guidelines)**

**Causes:**
- Gastric reflux.
- Poor gastric emptying.
- Gastrointestinal dysfunction and constipation.

**Action:**

1. Preventative measures – Aspirate from enteral feeding tube 4 hourly. If residual volume is > 200mls return 200ml of aspirate and discard remainder. (e.g. Aspirate = 250mls, return 200mls, discard 50mls).

2. If aspirate > 200mls on 3 consecutive occasions contact doctors to request commencing prokinetic agent e.g. Metoclopramide.

3. If aspirate remains > 200mls after commencing the prokinetic agent reduce rate of feed by 30mls / hr until tolerated. Maintain at minimum rate of 30ml /hr until reviewed by Dietitian.

4. If practical and patient able, sit patient slightly upright.

5. Consider whether the patient could be constipated – if bowels not open for >3 days commence laxatives or glycerine suppositories unless contraindicated. If necessary request further investigation.

6. If nausea and/or vomiting persist even with use of prokinetic agent consider jejunal feeding.

7. If actions are taken and symptoms continue contact the Dietitian to review feeding regimen and inform the patients caring medical team.

**Note:** HEF patients experiencing nausea, vomiting and abdominal distension contact HEF Dietitians or GP if out of office hours.

**9.4 Diarrhoea**

Diarrhoea is classified as an increase in stool weight to greater than 300g per day accompanied by increased stool frequency e.g. > 3 stools per day. Diarrhoea is a complication in 10-25% of enterally fed patients. It is not an indication to stop feeding unless severe.

**Common Causes**
• Medications – antibiotics, magnesium containing antacids, electrolyte elixirs, digoxin, methyl-dopa.

• Bolus feeding or rapid delivery of feed.

• Infection or microbial contamination.

**Treatment**

• Commence stool chart.

• Review medication.

• Take stool specimens for microbiology to confirm that infective agent is not the cause. Request test for *Clostridium difficile* toxin.

• If stool sample is positive, treat. DO NOT STOP THE FEED.

• If stool samples are negative, contact the medical team or GP to commence hypomotility agents such as *loperamide* or *codeine phosphate* if appropriate.

• Contact the medical team or GP or Pharmacist to review prescriptions and stop any medications where possible that may exacerbate diarrhoea.

• Contact the Dietitian to review the feeding regime as soon as possible.

**10 Guidelines for Management of Enterally Fed Adult Patients with Diabetes**

Every attempt should be made to prevent or minimize hypoglycaemia and hyperglycaemia in patients with diabetes who are being enterally fed. Warning signs of hypoglycaemia are not easily identified in patients who are unwell or unable to communicate.

A normal blood glucose level may be too narrow a margin for control in patients outside the critical care setting (where insulin adjustments can be made hourly) and could be instrumental in hypoglycaemia.

All patients (Derriford Hospital) with diabetes receiving artificial feeding should be referred to the dietitian and diabetes specialist nurse.

**Aims:**

To understand how enterally fed adult patients with diabetes should be managed.

**Objectives:**

• To understand the importance of maintaining the prescribed feed regimen and rate of delivery in order to meet the patients nutritional requirements.
To be aware of timing and appropriate administration of diabetes medication in relation to the feeding regimen and rest period, and the consequences of not doing so.

To identify other factors which may contribute to a hypoglycaemic event.

To regularly monitor patients blood glucose.

To understand actions to take for the immediate treatment and medium term treatment of an identified hypoglycaemic event.

To understand how to prevent further episodes

**Nutrition Support for People with Diabetes:**

- When providing nutritional support to patients with diabetes the main treatment aim should be to avoid the extremes of hyperglycaemia and hypoglycaemia.

- Blood glucose should be monitored at least four times per day. More frequent monitoring may be necessary in less stable patients.

- Blood glucose should be maintained at a target agreed by caring medical practitioner taking into account individual patient circumstances.

- Warning signs are not easily identified in patients who are unwell or unable to communicate therefore frequency of monitoring is essential.

**Risks for Hypoglycaemia:**

- Inappropriate use of diabetic medication.
- Interruption of nutrition support e.g. tube displacement.
- Vomiting of patient on insulin or sulphonylureas.
- Diabetic gastroparesis.
- Resolution of severe stress.
- Reduction in drugs that induce hyperglycaemia.
- Deterioration in renal function.
- Severe hepatitis.

**10.1 Treatment of Enterally Fed Patients when Blood Glucose is less than 4mmol/l**

- If a patient is able to swallow safely and has a functioning gut:
  - 15 –20g refined carbohydrate immediately e.g.
  - 4-6 heaped teaspoons sugar
  - 25-30mls Polycal (Nutricia).

If a patient is ‘Nil by Mouth’ and an enteral feeding tube in place, give 20-30mls Polycal via gastrostomy or NG tube. For home enterally fed patients a sugar solution may be used.
• Restart feed at the prescribed rate.

• Re-test blood glucose after 10 minutes, if < 4.0mmol/l repeat 10-20g carbohydrate. Continue to retest blood glucose at 10 minute intervals retreating (as above) if necessary until blood glucose is within the agreed target range. Repeat up to 3 times if needed. If still <4mmol/L after 3 times, start IV dextrose @ 100ml/hour (acute unit).

• Complete the infusion of feed.

If the enteral feed is stopped for any reason (acute unit) eg. investigation or if the feeding tube is displaced, 1000ml of 5% dextrose should be prescribed on the IV prescription chart and infused via a volumetric pump over 6 hours.

Consider setting up IV insulin and fluids sliding scale (blue form ‘Fasting patients, not eating and drinking’). For patients at home contact GP.

• Acute Unit: Contact the medical team if blood glucose level decreases further or cannot be increased.

• Community: Contact the GP if blood glucose level decreases further or cannot be increased.

11. Home Enteral Feeding

It is essential that patients/ carers/ community staff nurses be adequately trained to administer enteral feeds and care for the feeding tube prior to discharge. They must also be familiar with the practical aspects of ongoing feed and equipment supply. Training is carried out on the ward prior to discharge by the nurses who are responsible for completing and signing a checklist provided by the dietitian. Safe discharge of patients requires good communication between ward staff, acute and home enteral feeding dietitian and discharge coordinator. Patients in whom tubes are placed in the outpatient setting are trained to administer feeds and trained in the care of the tube by the Home Enteral Tube Feeding Dietitian.

11.1 Discharge Checklist for Home Enteral Tube Feeding (HETF)

This form must be completed by nursing staff for all patients prior to being discharged on HETF. It should then be filed in the Nursing Notes. Discharge requires at least 1 working day for all departments:

| Name of nurse organising discharge equipment/ training |  |
| Signature of nurse |  |
| Ward |  |
| Date of completion |  |

Ward Checklist

Contact Department Nutrition & Dietetics Ext: 32243 with details of ward, patient name & discharge
Contact District Nurse/Onward Care Team
For follow up of stoma site and arrangement of syringes for medication
Ext: 32011 or Ext: 32008 (Cornwall) or Ext: 31393 (Devon) or Ext: 31451 (Plymouth)

Contact ward Pharmacist for review of suitability of medication via enteral feeding tube (as applicable)

Request Doctors to prescribe 14 day supply of enteral feed on TTA’s
14 days ____________________________ feed on TTA’s (____ x 500ml Easy bags)

Order from SDU Ext: 53809 or 52031 (enquiries)
14 x Giving sets sets (Applix Pump Set Easy Bag) 7752055
14 x Applix Pump Set HydroBag (1500ml) if required for overnight feeding 7751107 (if applicable)
14 x Easy Bolus Adaptor 7755691 i.e. for decanting feed (if applicable)

Order from EPROC or obtain from ward supplies
____ x 60ml enteral syringes (purple) Order No. FTA 047

Dressing packs if required for gastrostomy or jejunostomy tubes

NG tubes only
1 x Packet pH indicator strips
Naso-fix adhesive strips

Dietitian to organise:

<table>
<thead>
<tr>
<th>Dietitian to tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x Applix Smart pump (ensure power cable is attached to pump)</td>
</tr>
<tr>
<td>1 x Pump stand</td>
</tr>
<tr>
<td>1 x Enteral feeding regimen</td>
</tr>
</tbody>
</table>

Dietitian Name/Signed

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**To be filed on the Second Clip (Second Spine) – Nursing Notes Section**

### Department of Nutrition & Dietetics

**Discharge Checklist for Home Enteral Tube Feeding**

This form must be completed for all patients prior to being discharged on HETF by the nursing staff and filed in the Nursing Notes.

<table>
<thead>
<tr>
<th>Teaching Checklist</th>
<th>Nurse to tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient / carer understands why Enteral Feeding is required</td>
<td></td>
</tr>
<tr>
<td>Patient / carer demonstrates ability to set up the feeding system correctly</td>
<td></td>
</tr>
<tr>
<td>Patient / carer demonstrates ability to flush the tube</td>
<td></td>
</tr>
<tr>
<td>Patient / carer demonstrates ability to administer drugs correctly</td>
<td></td>
</tr>
<tr>
<td>Patient / carer demonstrates understanding of hygiene during feed delivery &amp; storage</td>
<td></td>
</tr>
<tr>
<td>Patient / carer has been instructed on what to do in the event of tube blockage</td>
<td></td>
</tr>
<tr>
<td>Patient / carer understands the importance of patient positioning during feeding</td>
<td></td>
</tr>
</tbody>
</table>
Patient / carer knows how and who to contact if problems should arise

Patient / carer aware of follow up arrangements

Patient / carer has been given written information on home delivery service for feed and equipment, or how to get feed and equipment

**For patients with nasogastric feeding tubes only:**
1. Patient / carer able to confirm position of NG tube by demonstrating ability to aspirate from tube and test aspirate with pH sensitive paper (Merck CE 0-6). He/she understands why it is essential to check tube position prior to administering any feed/water/medication via tube
2. Patient / carer has been given written information on checking position of NG tube (NPSA document – in ward nutrition folder)

**For patients with gastrostomy (PEG/RIG/PEG-J) tube only:**
1. Patient/carer is competent to:
   (i) Correctly advance and/or rotate and tension the tube if it has been in place for >10 days OR change the water in a balloon gastrostomy tube – refer to endoscopy/radiology aftercare sheet
   (ii) Clean the stoma site
2. Patient/carer has been provided with appropriate written aftercare information by Endoscopy/ Radiology/Dietetic Department

**For patients with jejunostomy tubes only**
1. Patient/carer is competent to:
   (i) Clean the stoma site
2. Patient/carer has been provided with appropriate written aftercare information by Dietetic Department

Complete ‘End User Checklist for Practitioners who prepare patients/carers to use a Medical Device as part of a home care package’ and file in patient’s nursing notes

---

**End User Checklist for Practitioners who prepare patients/carers to use a Medical Device as part of a home care package**

<table>
<thead>
<tr>
<th>Name of medical device/equipment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset number (if available)</td>
<td></td>
</tr>
<tr>
<td>Area/ward</td>
<td></td>
</tr>
<tr>
<td>Name of person providing training</td>
<td></td>
</tr>
<tr>
<td>Role of person providing training</td>
<td></td>
</tr>
<tr>
<td>Signature of person providing training</td>
<td></td>
</tr>
<tr>
<td>Date when training was delivered</td>
<td></td>
</tr>
</tbody>
</table>

**The patient/carer** must be trained on how to use this Medical Device safely and should be able to:

- Explain why they need this device and its purpose
- Demonstrate the use of the device, including any pre-use checks
- Describe the arrangements for the supply of consumables (e.g., medication, feed, etc) or single use items
- Keep the device working, including any basic maintenance
- Clean the device and provide safe storage
- Dispose of any clinical ‘sharps’ and waste (e.g., sharps boxes)
Fit accessories and be aware how this may increase risk or limit the use of the device

Describe the meaning of any displays, indicators, alarms and demonstrate how to respond them

Understand **not to attempt** to make any repairs to the device

In addition:
- Understand that all ambulatory syringe drivers provided by Derriford Hospital on discharge should be returned to MEMS, Level 4, Derriford Hospital, Plymouth as soon as possible.
- Receive a copy of the instructions/manual
- Be provided with a named contact if there are any problems with the device and report any faults/malfunctions

Name of contact: Tel:

I understand the training instruction provided. **Patient/carer sign:**

………………………………………………………………………………………………

Print name: Date:

**What to do with this form:** Place within patient’s notes and for tracking purposes, the trainer **MUST** post a photocopy of this completed form to Jonathan Applebee Head of Clinical Technology, MEMS, level 4 Derriford Hospital

### 11.2 Follow up at Home

Follow up at home is via GP, District Nurse (as appropriate) and Home Enteral Feeding Dietitian. All patients should be telephoned within two working days of their discharge from hospital or transfer by HEF dietitian. The HEF Dietitian should visit the patient at home within 10 working days. Patients or carers should contact the HEF Dietitian if feed related problems arise at home.

All patients should be reviewed by the HEF dietitian every 3-6 months unless requested otherwise. Contact with GP and other Health Care Professional if appropriate at least once per year by standard review letter, more frequently if changes to treatment occur. The annual review letter should summarise all of the contacts for that year even if changes to treatment have not occurred.

### 12. Useful Contact Numbers

- Home Enteral Feeding (HEF) Dietitians, Estover Health Centre, Tel: 01752 314925.
- Nutrition and Dietetic Department, Derriford Hospital, Tel 01752 432243.
- Pharmacy Information, Tel 01752 432274.
- Endoscopy Nurse Specialist, Derriford Hospital, Tel. 01752 432164.
- Medical Imaging Sister, Derriford Hospital, Tel. 01752 431961/431963.
- Community Diabetes Specialist Nurse, Tel. 01752 792962.

Healthcare Staff are available to advise and support staff and patients with both routine care and complex enteral feeding needs (Monday -Friday 8.30-4.30pm). Out of hours contact GP or Derriford Hospital Switchboard, Tel: 08451 558155.

**Appendices:**
The appendices are up to date according to the date of the Nasogastric and Gastrostomy Feeding Guidelines for Adults. Always check review date and contact the relevant Hospital for current information, if outside of review date.

**All policies are required to be electronically signed by the Lead Director. Proof of the e-signature is stored in the policies database.**

The Lead Director approves this document and any attached appendices. For operational policies this will be the Locality Manager.

Signed:

Date:
Appendix 1

Pathway for PEG Placement in Derriford Hospital (Inpatient)

Patient requires endoscopically placed gastrostomy tube (PEG)

PEG referral form sent to Endoscopy Dept (MS/CNS)

Patient assessed for PEG suitability (NE)

PEG Appropriate

YES
NO

Consider referral to Radiology Dept. for RIG placement if further nutritional intervention is considered appropriate (MS)

1. Patient consent obtained (if able) and date set for PEG placement (NE)
2. Ward informed and instructions for preparation given (NE)
3. Medical staff request for relevant blood tests and consent (if pt. unable) (NE)
4. Acute Dietitian informed (NE)

PEG Placed (ED)

1. PEG aftercare instructions are given to ward staff, timing of tube rotation discussed (NE)
2. Acute Dietitian referral for PEG feeding regime (WNS)
3. Feeding regime provided (AD) and feeding commenced (WNS)

Preparation for discharge

1. Home enteral tube feeding paperwork for discharge and feeding pump given to patient (AD)
2. Patient or carer trained on feed delivery and trained on care of tube (WNS)

Discharge date decided (MS)

1. Acute Dietitian informed (WNS)
2. Feed (14 days supply) ordered from Pharmacy Dept. (WNS)
3. Pharmacist referral to review medication and suitability for feeding route (WNS)
4. Home Enteral Feeding Dietitian informed and transfer letter sent (AD)

Patient contacted at home within 2 working days of discharge and visited at home or Nursing Home within 10 days of discharge. GP informed of visit and follow up arrangements (HEFT)
Appendix 2

Pathway for PEG Placement in Derriford Hospital (Outpatient)

1. Patient requires endoscopically placed gastrostomy tube (PEG)
2. PEG referral form sent to Endoscopy Dept. (MS/CNS)
3. Patient contacted to arrange a date for assessment for PEG suitability (NE)
4. PEG appropriate?
   - YES: Consider referral to Radiology Dept. for RIG placement if further nutritional intervention is considered appropriate (MS)
   - NO: Patient advised on PEG aftercare, given written information and advised on blood tests required prior to procedure (NE)
5. Patient consent obtained (if able) and date set for PEG placement (NE)
6. GP informed, request for relevant blood tests and consent (if pt. unable) (NE)
7. Home Enteral Feeding Dietitian informed (NE)
8. Patient visited at home (HEFT)
   1. Tube care, feeding and equipment needs discussed
   2. Patient registered on Homecare delivery service
9. PEG Placed (ED)
   1. PEG aftercare instructions given to patient, red flag symptoms and tube care discussed. First water flush given (NE)
   2. District Nurse referral (as appropriate) (NE)
   3. Dietitian/nurse visit day 1 post PEG. Training on care of PEG and feeding system delivered as appropriate. GP informed of visit and follow up arrangements (HEFT)
10. Patient visited at home or Nursing Home 1 day post tube placement. Further training on PEG care and feeding system delivered as appropriate (HEFT/Nurse)
Appendix 3

Pathway for Radiologically Inserted Gastrostomy Tube (RIG) Placement in Derriford Hospital (patient not requiring enteral feeding)

1. 5ml luer slip syringe, 1x catheter tip syringe
2. Oncology patients who are discharged home without being seen by the radiology sister will be visited at home within a day of discharge by the HEFT
Appendix 4

Pathway for Radiologically Inserted Gastrostomy Tube (RIG) Placement in Derriford Hospital (patient requiring enteral feeding)

Patient requires gastrostomy tube but failed or inappropriate for endoscopically placed tube.

X Ray form requesting RIG sent to Radiology Dept (MS/CNS)

Existing Inpatient → Date set for RIG placement (RS) → Outpatient

1. Hospital bed booked (if outpatient) (MS/CNS)
2. Medical staff request for relevant blood tests (RS)
3. Acute Dietitian informed (RS)
4. HEF Dietitian informed (AD)

RIG placed with patient consent (RD)

1. Acute Dietitian referral for RIG feeding regime (WNS)
2. Feeding regime provided (AD) and feeding commenced (WMS)
3. RIG aftercare discussed with patient and arrangements for sutures to be removed, equipment for tube care and written information given (RS)

Preparation for discharge

1. Home Enteral Tube Feeding paperwork for discharge and feeding pump given to patient (AD)
2. Patient and carer trained on feed delivery and trained on care of tube (WNS)

Discharge date decided (MS)

1. Acute Dietitian informed (WNS)
2. Radiology Sister informed (WNS)
3. Pharmacist referral to review medications and suitability of administration route (WNS)
4. Feed (14 days supply) ordered from Pharmacy Dept. (WNS)
5. Home Enteral Feeding Team informed and transfer letter sent (AD)

Patient contacted at home within 2 working days of discharge and visited at home or Nursing Home within 10 days of discharge (HEFT/Nurse) GP informed of visit and follow up arrangements (HEFT)

Footnotes
1. Outside of normal working hours (i.e. 8.30am-4.30 pm Mon-Fri) ward nursing staff to use ‘Adult Gastrostomy Feeding Regime’
2. 5ml luer slip syringe and 1x catheter tip syringe
Appendix 5

Risk assessment for syringe choice for patients with enteral feeding tubes in primary care

Single Use syringes or reusable enteral syringes for patients with enteral feeding tubes in primary care.

If the patient meets all the criteria below then reusable enteral feeding syringes may be used:
- 1 reusable syringe every 7 days for water, and 1 reusable syringe every day for feed.

The patient is living in their own home. YES NO
The home environment is socially clean. YES NO
The patient is not immuno-compromised. YES NO
The patient is over the age of 12 months. YES NO
The patient does not have a jejunal enteral feeding tube. YES NO
The patient and/or carers understand the need for cleanliness. YES NO

Abbreviations:

NE Nurse Endoscopist
HEFD Home Enteral Feeding Dietitian
AD Acute Dietitian
MS Medical Staff
ED Endoscopy Department
RD Radiology Department
RS Radiology Sister
MS Medical Staff
WNS Ward Nursing Staff
DN District Nurse
PERCUTANEOUS ENDOSCOPIC PLACED GASTROSTOMY (PEG)

POST PROCEDURE CARE FOR ADULTS

Aftercare Days: 1 – 10

- **Nil by tube/mouth for 4 hours post procedure (to allow recovery from sedation)**
- **Do not disturb the dressing for the first 24 hours.**
- **Daily:** using an aseptic/clean technique – remove the old dressing, clean entry site (wound/stoma) with normal saline and dry well with gauze. Apply sterile gauze dressing if required i.e. oozing (contact Nurse Specialist, District Nurse, Dietitian or GP for advice).
- **Daily:** observe entry site for signs and symptoms of infection i.e. erythema (redness), pus or raised temperature: If indicated send a swab oozing (contact Nurse Specialist, District Nurse, Dietitian or GP for advice).
- **Daily:** if PEG not in use flush with 50mls water.
- **Clean all gastrostomy connections with warm soapy water, rinse and dry.**
- **Ensure the gastrostomy tube is clamped and the end closed at all times when the tube is not in use.**
- **The patient may shower; ensure the entry site is dried with gauze.**

Aftercare: after 10 days (inpatients please see PEG care plan)

- **Daily:** clean the entry site with warm soapy water, rinse and dry well.
- **Daily:** if the PEG is not in use flush with 50mls water.
- **Clean the gastrostomy tube and underside of the external fixation plate with warm soapy water, rinse and dry to prevent the build-up of oily deposits.**
- **Clean all gastrostomy connections with warm soapy water, rinse and dry.**
- **Weekly:** unclamp external fixation plate, clean entry site and tube as required, push tube 5cm inwards, retract 4cm, rotate the tube 360 degrees, pull back until gentle resistance, leave a 1cm between skin and external fixation plate, then reclamp.
- **Observe site for redness or irritation, if extra skin protection is required around the entry site, apply a thin layer of Cavilon NSBF as a barrier.**

**Important information:**

All patients **must** be referred to the dietetic department on insertion and prior to discharge to advise on requirements and arrange community follow up. If you have any concerns and advice or information is required, please contact:

- Narrie Pitts, Senior Nurse Endoscopist on 01752 432163 (int: 32163) or 08451558155 pager 89757.
- Hospital dietetic Department on 01752 432242 (int: 32242) or Community Dietetic Department on 01752 314925.
ALERT: ▲ IF THERE IS PAIN ON FEEDING, OR NEW BLEEDING, OR LEAKS OF FLUID AROUND THE TUBE, STOP FEED IMMEDIATELY AND TELEPHONE THE ENDOSCOPY DEPARTMENT MONDAY TO FRIDAY BETWEEN 8AM AND 6PM OR ATTEND THE HOSPITAL EMERGENCY DEPARTMENT.

***PATIENT PRESENTS TO HOSPITAL WITH RED FLAG PERCUTANEOUS FEED TUBE PROBLEM (EXCESSIVE PAIN, BLEEDING, LEAKING, FALLEN OUT)

*Office hours Radiology Ext: 37468(RIGs) or Endoscopy Ext: 32163(PEGs) are available for advice - Gastro team conduct BD ward round on AMU weekdays. Out of hours advise patient to attend ED and be redirected to SAU/MAU

Appendix 7
### Aftercare Days: 1 – 10

- Nil by tube/mouth for 4 hours post procedure (to allow recovery from sedation)
- Do not disturb the dressing for the first 24 hours.
- **Daily:** using an aseptic/clean technique – remove the old dressing, clean entry site (wound/stoma) with normal saline and dry well with gauze. Only apply sterile gauze dressing & if required, change daily, i.e. oozing (contact Nurse Specialist, District Nurse, Dietitian or GP for advice).
- **Daily:** observe entry site for signs and symptoms of infection i.e. erythema (redness), pus or raised temperature: if oozing take swab and send to microbiology (contact Nurse Specialist, District Nurse, Dietitian or GP for advice).
- **Daily:** if RIG not in use flush with 50mls water.
- Clean all gastrostomy connections with warm soapy water, rinse and dry.
- Ensure the gastrostomy tube retention bolster is no more than 2-3mm from the skin and the end is closed at all times when tube not in use
- The patient may shower; ensure the entry site is dried with gauze.

### Aftercare: after 10 days (inpatients please see RIG care plan) Stay sutures to be removed Day 10 -14 post insertion

- Daily Clean the gastrostomy tube and lift edges of retention bolster with warm soapy water, rinse and dry well.
- Daily Rotate the tube 360 degrees to prevent adhesions forming
- Clean all gastrostomy connections with warm soapy water, rinse and dry.
- Ensure the retention bolster is no more than 2-3mm from skin gently pull on the tube until you feel a resistance,
- The extension set should be cleaned in warm water with mild detergent, rinsed thoroughly and left to air dry. Sets should be replaced every 2 weeks.
- **Weekly:** check and change the volume of water in the internal retention balloon.
- Push tube 2-3 cm inwards attach the empty 5ml luer slip syringe to the inflation valve. Gently draw back on the syringe until the water is drawn off from the balloon. Detach the 5ml luer slip syringe from the inflation port, note the volume of water and then discard. Repeat the process to ensure the internal retention balloon is completely empty.
- Re-inflate the balloon with exactly 5mls of freshly drawn tap water. Retension the tube as stated under daily care

### Important Information:

All patients **must** be referred to the dietetic department on insertion and prior to discharge to advise on requirements and arrange community follow up. If you have any concerns and advice or information is required, please contact:
- Senior Nurse Radiologist on 01752 437468 or 792487 (int: 37468) or 08451558155 bleep 7790940.
- Hospital dietetic Department on 01752 432243 (int: 32243) or Community Dietetic Department on 01752 314925.
- **ALERT: ▲ IF THERE IS PAIN ON FEEDING, OR NEW BLEEDING, OR LEAKS OF FLUID AROUND THE TUBE, STOP FEED**
IMMEDIATELY AND TELEPHONE THE ENDOSCOPY DEPARTMENT MONDAY TO FRIDAY BETWEEN 8AM AND 6PM OR ATTEND THE HOSPITAL EMERGENCY DEPARTMENT.

***PATIENT PRESENTS TO HOSPITAL WITH RED FLAG PERCUTANEOUS FEED TUBE PROBLEM (EXCESSIVE PAIN, BLEEDING, LEAKING, FALLEN OUT)

*Office hours Radiology Ext: 37468 (RIGs) or Endoscopy Ext: 32163(PEGs) are available for advice

**Gastro team conduct BD ward round on AMU weekdays. Out of hours advise patient to attend ED and be redirected to SAU/MAU

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**Appendix 8**

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How long has tube been in?

- **< Two weeks**
  - Admit to SAU
  - Refer to on call Gastroenterologist*
  - Consider placement problem i.e: sepsis, perforated viscous - CT/USS

- **< Two weeks**
  - Admit to AMU**
  - Refer to on call Gastroenterologist*
  - Is the tube still in situ?
    - Yes
      - Confirm position, exclude infection - BC's, swab, consider linogram
    - No
      - Maintain tract patency with replacement tube or suitable balloon device **ASAP**
      - (May need OGD referral if not patent)
# Inpatient Daily Care Record

**Surname:**
**First Name:**
**Hospital Number:**
**NHS Number:**
**DOB:**
*Affix patient label here*

Date inserted: ..................................................  Type and size of tube: ........................................

Method of insertion: PEG/RIG/Other type insert: .......................................................... (Please circle)

Detach this form and keep with patient’s care plan at end of their bed.
Please see the Gastrostomy aftercare sheet provided to each patient for initial Post-Op care instructions and alerts.
For concise instructions refer to: [Adult Nasogastric and Gastrostomy Tube feeding guidelines v1.7 section 6](#) for current trust policy.

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To be filed in - Nursing Notes  HRSG issue: 0736/1