A Practical Guide to Nutrition Support for Adults

This procedural document supersedes: PAT/T 35 v.2 - A Practical Guide to Nutrition Support for Adults.

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Alison Zientek – Senior Renal Dietitian |
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<td>Martin Deakin</td>
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<td>Martin Deakin</td>
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<td>Alison Zientek</td>
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</tbody>
</table>
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction and Purpose 5</td>
</tr>
<tr>
<td>2</td>
<td>Duties and Responsibilities 5</td>
</tr>
<tr>
<td>3</td>
<td>Procedure 6 - 25</td>
</tr>
<tr>
<td>3.1</td>
<td>Nutrition and Dietetic Service 6</td>
</tr>
<tr>
<td>3.2</td>
<td>Catering Provision 6</td>
</tr>
<tr>
<td>3.3</td>
<td>Nutritional Screening 8</td>
</tr>
<tr>
<td>3.4</td>
<td>Oral Nutritional Support 9</td>
</tr>
<tr>
<td>3.5</td>
<td>Enteral Nutrition 10</td>
</tr>
<tr>
<td>3.5.1</td>
<td>Indications for Enteral Feeding 10</td>
</tr>
<tr>
<td>3.5.2</td>
<td>Routes of Enteral Feeding 10</td>
</tr>
<tr>
<td>3.5.3</td>
<td>Enteral Nutrition – Administration, Equipment and Storage 13</td>
</tr>
<tr>
<td>3.5.4</td>
<td>Weaning from Enteral to Oral Nutrition 18</td>
</tr>
<tr>
<td>3.5.5</td>
<td>Discharging Patients Home on Enteral Feeding 18</td>
</tr>
<tr>
<td>3.5.6</td>
<td>Enteral Nutrition – Good Practice Points 19</td>
</tr>
<tr>
<td>3.6</td>
<td>Parenteral Nutrition 20</td>
</tr>
<tr>
<td>3.6.1</td>
<td>Indications for Parenteral Feeding 20</td>
</tr>
<tr>
<td>3.6.2</td>
<td>Routes and Ordering of Parenteral Nutrition 20</td>
</tr>
<tr>
<td>3.6.3</td>
<td>Formulations and Prescriptions for Parenteral Nutrition 21</td>
</tr>
<tr>
<td>3.6.4</td>
<td>Parenteral Nutrition – Administration, Equipment and Storage 22</td>
</tr>
<tr>
<td>3.6.5</td>
<td>Parenteral Nutrition – Monitoring 23</td>
</tr>
<tr>
<td>3.6.6</td>
<td>Weaning from Parenteral Nutrition 23</td>
</tr>
<tr>
<td>3.6.7</td>
<td>Parenteral Nutrition – Good Practice Points 23</td>
</tr>
<tr>
<td>3.7</td>
<td>Refeeding Syndrome 24</td>
</tr>
<tr>
<td>3.8</td>
<td>Ethical and Legal Consideration 25</td>
</tr>
<tr>
<td>4</td>
<td>Training and Support 25</td>
</tr>
<tr>
<td>5</td>
<td>Monitoring Compliance with the Procedural Document 25</td>
</tr>
<tr>
<td></td>
<td>Abbreviations</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>6</td>
<td>Equality Impact Assessment</td>
</tr>
<tr>
<td>7</td>
<td>Associated Trust Procedural Documents</td>
</tr>
<tr>
<td>8</td>
<td>References</td>
</tr>
<tr>
<td>Appendix 1</td>
<td>Dietetic Referral and Record</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>Dysphagia</td>
</tr>
<tr>
<td>Appendix 3</td>
<td>MUST</td>
</tr>
<tr>
<td>Appendix 4</td>
<td>Food Record Chart</td>
</tr>
<tr>
<td>Appendix 5</td>
<td>Dietary Management of Diabetes at Ward Level</td>
</tr>
<tr>
<td>Appendix 6</td>
<td>Food Refusal</td>
</tr>
<tr>
<td>Appendix 7</td>
<td>Decision Tree for NG Tube Placement in Adults</td>
</tr>
<tr>
<td>Appendix 8</td>
<td>Out of Hours Enteral Feeding Regime for Adults</td>
</tr>
<tr>
<td>Appendix 9</td>
<td>Troubleshooting Guide for Complications Associated with EN</td>
</tr>
<tr>
<td>Appendix 10</td>
<td>Administering Drugs via Enteral Feeding Tubes</td>
</tr>
<tr>
<td>Appendix 11</td>
<td>Equality Impact Assessment</td>
</tr>
</tbody>
</table>
1. INTRODUCTION AND PURPOSE

This policy details the practical guidance, procedures and resources required to provide first line management of nutritional care to all adult patients.

This document has been developed to unify the processes involved in delivering a seamless approach to the nutritional care of adults. This will ensure that every member of staff responsible for nutritional screening, monitoring and the provision of appropriate nutrition has access to consistent up-to-date and relevant information.

This document aims to:

- Provide referenced background information and practical tools to improve practice
- Co-ordinate and improve the effectiveness of nutritional care at ward level
- Enable an efficient discharge process, for those patients requiring ongoing nutritional support in the community.

2. DUTIES AND RESPONSIBILITIES

<table>
<thead>
<tr>
<th>Staff Group</th>
<th>Roles and Responsibilities</th>
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<tbody>
<tr>
<td>Nutrition Steering Group and Nutrition Action Group</td>
<td>To ensure that this policy is approved, reviewed and disseminated to the target audience, promoting awareness and compliance.</td>
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<tr>
<td>Link Nurses</td>
<td>Act as the nutritional champions within their own clinical areas and lead on disseminating information relating to the nutritional care of patients.</td>
</tr>
<tr>
<td>Ward managers and Ward staff</td>
<td>Ward managers ensure that all patients’ nutritional needs are met and care planning and monitoring is in place for all patients.</td>
</tr>
<tr>
<td>Dietitians</td>
<td>Dietitian’s are the principal source of evidence-based information on food and nutrition and are important contributors and leaders of the nutritional care process. They provide nutritional advice and expertise for patients and staff in all units of the hospital, including catering and lead on the development of nutrition education and training programmes. Dietitian’s working in specialist areas will contribute to relevant updates of this policy.</td>
</tr>
<tr>
<td>Catering</td>
<td>Develops menus in conjunction with the dietetic department and patients to ensure that all patients’ nutrition and hydration needs can be addressed. Processes are in place to ensure the safety of food provided.</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>Advise on parenteral nutrition composition and compatibilities and ensuring aseptic processes for preparation are adhered to. Advise on drug delivery via enteral tubes and on drug-nutrient interactions.</td>
</tr>
<tr>
<td>Patients</td>
<td>Patients should be encouraged to take a positive approach to improving their nutrition and should be given information about what to expect and what to ask about when they come into hospital.</td>
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3. PROCEDURE

3.1 Nutrition and Dietetic Service

- At Doncaster the dietitians are on site from 8.00am to 5.00pm Monday to Thursday and 8.00am to 4.30pm on Friday.

- At Bassetlaw the dietitians are on site from 8.30am – 4.30pm Monday to Friday.

- At Montagu there is dietetic cover for the rehabilitation unit. The dietitian can be contacted on ext 5278.

- There is no dietetic cover on any site for weekends and bank holidays.

- In-patient referrals may be made to the team by fully completing a HMR9 – Dietetic Referral and Record (WPR22841) – (refer to Appendix 1 for current form).

  At DRI (ext 4110) referrals should be faxed to the dietetic department (fax number - 381300), and the original left in the patient’s care plan.

  At Bassetlaw (ext 2773) referrals should be faxed to the dietetic department (fax (50)2809), and the original left in the patient’s care plan.

  At Montagu (ext 5278) referrals should be made by telephoning the dietetic department, the referral should be left in the patient’s care plan.

3.2 Catering Provision

- The DRI diet bay in the catering department can be contacted on ext 642328 and are open from 7am until 7.30pm.

- The Bassetlaw diet bay in the catering department can be contacted on ext 2919 and are open from 6.30am to 7pm.

- The Montagu catering department can be contacted on ext 5234 and are open from 6.30 am to 7pm.

Meal Provision

There is a 2-week menu cycle available to our patients containing a variety of meal selections, made up of familiar favourites and a selection of Chefs Choice dishes from the NHS Better Hospital Food Initiative. A 24-hour catering facility is available to ensure that the dietary needs of patients are met, throughout the day and night, both inside and outside normal catering hours.
The menu options available are:

- **The Standard Menu** – The menu has been designed for patients who have a good appetite and are well enough to eat all, or most of the meals offered to them. Low fat, calorie controlled, diabetic, and soft options are all coded on the standard menu.

- **Vegetarian Option (V)** - these dishes are made up of ingredients are suitable for patients who will eat milk and egg products. You will need to order a special Vegan diet for patients who do not eat any animal products.

- **Enriched Option** - aims to offer fortified meals for patients who have poor appetite or require extra nutrition. This menu and additional snacks should be ordered for those patients identified as being nutritionally at risk as identified by MUST, see Section 3.3 for specific criteria.

- **Modified texture diets** - in the management of dysphagia (Texture C, D and E) should only be ordered on the recommendation of a Speech and Language Therapist (SALT). Please note that SALT will specify if patients on a texture E diet are allowed bread or not. All patients with a diagnosis of dysphagia which are placed on a modified texture diet should be referred to the dietitian for assessment (See trust MUST guidelines). There is a specific modified texture menu available from catering. Please see Appendix 2 for further information with regards to dysphagia management.

- **Renal Menu** – These dishes are modified to provide meals with a low sodium, potassium and phosphate content. Liaise with your dietitian if a renal menu is required.

- **Therapeutic/ Other Diets** - such as gluten free, milk free, halal etc. should to be ordered specifically on an individual basis direct from the diet bay (ext 3483.)

- **Snack Boxes and 24-Hour Catering** – The following provision is available for patients who require a meal outside standard meal times. When the kitchen is open, (7am- 7.30pm) contact the catering staff and a meal will be made available for the patient.

**When the kitchen is closed** – there are 2 options available
- Ward kitchen service
- Snack box

**The ward kitchen service can provide:**
- Toast/bread and preserves – jam/marmalade
- Biscuits/Cereals/Cake
- The ward beverage trolley provides a variety of hot drinks e.g. soup, Horlicks, hot chocolate, tea and coffee

Food and beverages from outside the hospital may be accepted onto the ward, however, it is the wards responsibility to ensure that Trust guidelines are adhered to in terms of safe storage (see PAT/IC 22) for further details.)
Snack boxes

These are available through the Senior Nurse on duty on the respective wards. The Snack box typically contains:

- Sandwich/fruit/fruit juice/crisps/yoghurt/chocolate bar

At DRI - Snacks box fridges are located on the landing of ward 18/19, and ward 4/6 and G5/6.

At Montagu - Snacks box fridges are located outside Rehab 2, this fridge is locked and the key is kept on Rehab 2 with the senior nurse on duty.

At Bassetlaw – Snack boxes are located in the fridge on B floor. Nursing staff on B5 have the key.

Patient Environment / Meal Experience

It is the wards responsibility to ensure that the following policies are adhered to, to ensure a safe, clean and comfortable environment conducive to an enjoyable meal experience for patients.

- Protected Mealtimes Policy – (PAT/PA 16)
- Hand Hygiene – (PAT/IC 5)
- Kitchen Hygiene and Refrigerator Monitoring Policy for Wards and Clinical Areas - (PAT/IC 22).

3.3 Nutritional Screening

Due to the increasing prevalence of malnutrition in hospital and the associated complications, it is important to identify those patients who are at risk of malnutrition.

All wards have been issued with a reference copy of the ‘Malnutrition Universal Screening Tool’ ‘MUST’. Please note that this is a national document and the management guidelines contained in it have not been localised. The tool and the localised management guidelines are now a part of the combined risk screening and assessment document (WPR23080) and can be found in appendix 3.

All adults should be screened within 24 hours of admission to the ward, and re-screened on a weekly basis. It is a nursing responsibility to ensure that the tool is accurately completed and the appropriate management guidelines are documented and actioned.

Please be aware the dietetics department will only accept fully completed referrals with a correct ‘MUST’ score, where all relevant management guidelines have already been actioned. Incomplete or inappropriate referrals will be returned and not seen, and it is the ward responsibility to manage these patients appropriately.

For the management of overweight and obese patients, categorise as per ‘MUST’ and record presence of obesity. Treat any underlying condition, which may also affect nutritional status, (overweight and obese patients are at as high a risk of malnutrition as any other patient group).
3.4 *Oral Nutritional Support*

The nutritional management of patients with a MUST score of ≥1 is:

- **Enriched option** – it is the nurses responsibility to ensure that the enriched box on the standard menu is shaded in on a daily basis

- **Snacks** – These patients should be offered snacks at least twice daily and ordered from catering - the following are a typical list of snacks available
  - Full cream milk / enriched milk
  - Full fat Yoghurts/pudding
  - Scone and jam
  - Cheese and biscuits
  - Assorted Cakes/biscuits
  - Sandwiches

Some of the above snacks may not be appropriate to offer all patient groups, please see Appendix 2 for appropriate texture modified snacks and Appendix 5 for appropriate snacks for patients with diabetes.

*If a patient, who has snacks ordered, is discharged or transferred to another ward, it is the wards responsibility to inform catering of any changes.*

**Nutritional supplements**

Oral nutritional supplements are required for patients who are unable to consistently achieve an adequate nutritional intake from their enriched diet and snacks. These patients should have a food record chart fully completed on a daily basis.

The following table highlights the nutritional supplements that are appropriate for first line management and can be administered by nursing staff without dietetic input. All nutritional supplements should be prescribed on JAC and signed for when dispensed. **The amount of supplement consumed by the patient must be documented on the food record chart.**

<table>
<thead>
<tr>
<th>Supplement</th>
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<th>Type</th>
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<tbody>
<tr>
<td>Fortijuce</td>
<td>Lemon, Apple, Orange, Strawberry, Tropical, Forest Fruits, Blackcurrant</td>
<td>Juice Style</td>
</tr>
<tr>
<td>Fortisip Compact</td>
<td>Vanilla, Strawberry, Banana, Mocha, Apricot Forest Fruits, Chocolate</td>
<td>Milk style high energy reduced volume</td>
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</table>

- At **DRI** all supplements are available directly from catering
- At **Bassetlaw** all supplements are available directly from the Department of Nutrition and Dietetics
- At **Montagu** all supplements are available directly from catering
Some of the above supplements may not be appropriate or may need to be used with caution in some patient groups. See Appendix 5, for guidance on use of supplements in patients with diabetes. See Appendix 2, for details of how to thicken supplements for those patients whom SALT has advised thickened fluids. If you are unsure whether these supplements are appropriate for your patient’s condition please seek advice from your ward dietitian.

For those patients who require supplements on discharge, it is the wards responsibility to ensure that a 7 day supply is given to the patient to take home. TTO’s are available directly from catering at DRI and Montagu and directly from the dietetic department at Bassetlaw.

For those patients that are admitted who are prescribed non-first line supplements in the community, ensure continuity of care by having them prescribed on JAC and order stock.

**Food Refusal**

There may be many reasons why patients refuse to eat and drink. However all avenues should be investigated. Ensure there are no specific reasons, which can be easily, remedied e.g. constipation, nausea, poor dentition or fear of incontinence. Patients that lack capacity and are unable to make appropriate food and fluid choices are at high risk of malnutrition and dehydration. Strategies for Food Refusal should be implemented see Appendix 6.

### 3.5 Enteral Nutrition

Feeding via the enteral route is superior to the parenteral route in terms of physiology, immunology, and cost. In view of this, enteral feeding should be considered as first line management in those patients with a functioning and accessible gastrointestinal tract.

It is essential that all pre-existing enterally fed patients and new patients being considered for enteral feeding be referred to the dietitian for assessment and intervention.

- **3.5.1 Indications for Enteral Feeding**

Patients who should be considered for enteral tube feeding:

- are those unable to tolerate diet safely by the oral route (i.e. the unconscious patient and those at risk of aspiration due to dysphagia)

- are those unable to take adequate amounts of diet or supplements orally in order to maintain their body weight and nutritional status.

- **3.5.2 Routes of Enteral Feeding**

A number of routes can be used to initiate enteral tube feeding and it is important that the most appropriate be selected. The decision to commence tube feeding can be predominantly
determined by the expected duration of feeding, gastrointestinal function and any underlying medical condition, which should be addressed by all relevant members of the MDT.

**Fine bore nasogastric tubes (NG)**

Within a clinical setting fine bore nasogastric feeding is a common and simple method of providing short term artificial nutritional support.

**Key considerations**

- Nasogastric feeding is primarily used in patients who cannot maintain adequate nutritional intake by oral means
- They enable enteral nutrition and fluid to be delivered directly into the stomach via an enteral feeding pump. Bolus feeding is not advisable
- NG tubes are primarily used when short term feeding is indicated (<6 weeks) and the gastrointestinal tract is functioning
- They should only be placed by appropriately trained and competent staff
- For guidance on:
  - NG tube types and insertion
  - Contraindications
  - Managing Risk
  - Method for confirming correct placement of NG feeding tubes
  - Exceptional circumstances e.g. patients on Critical Care

Please refer to Trust - Nasogastric Tube Management and Care PAT/T 17.

**Nasojejunal tubes (NJ)**

Nasojejunal tubes are used to deliver enteral nutrition into the jejunum and not the stomach. NJ feeding would be indicated were the stomach needs to be bypassed i.e. where there is gastric outflow obstruction. The contraindications for NG feeding apply to NJ feeding.

**Key considerations**

- Consider before parenteral nutrition
- They enable enteral nutrition and fluid to be delivered directly into the jejunum via an enteral feeding pump. Bolus feeding is not advisable
- Helpful for those patients that do not tolerate NG feeding and may prevent the need for parenteral nutrition
Placement of these tubes is technically more difficult and insertion typically is done radiologically or during surgery.

As the NJ tube feeds beyond the stomach, pH testing is not required. However it is good practice to examine and measure the external length of the tube for signs of movement. If in any doubt that the tube is not in the correct position – DO NOT USE and seek advice from the medical team.

NJ tubes are often narrower and are at higher risk of blockage, therefore require flushing with 30mls of sterile water 4 hourly.

**PEG (Percutaneous Endoscopic Gastrostomy) and RIG (Radiologically Inserted Gastrostomy)**

These tubes are indicated when the anticipated need for nutritional support is greater than 6 weeks. The terms PEG and RIG describe the actual placement procedure, whereby a PEG is placed in Endoscopy and a RIG is placed Radiologically.

**Key considerations**

- They enable enteral nutrition and fluid to be delivered directly into the stomach via either a enteral feeding pump or bolus feeding.

- pH testing is not required. However it is good practice to examine and measure the external length of the tube for signs of movement. If in any doubt that the tube is not in the correct position – DO NOT USE and seek advice from the medical team.

- PEG tubes are held in place by a retention bolster on the inside of the stomach and by a fixation device on the outside.

- RIG tubes are held in place by a balloon filled with a measured amount of sterile water – for newly placed RIG’s follow instructions from radiology as per Trust document WPR35421 (RIG – Care DAY 1-14). For existing RIG’s follow advice as per balloon gastrostomy below.

**Balloon Gastrostomy and low profile Gastrostomy tubes (Button)**

These tubes are normally seen following a replacement for a PEG.

**Key considerations**

- They enable enteral nutrition and fluid to be delivered directly into the stomach via either a enteral feeding pump or bolus feeding.

- These tubes are held in place by a balloon filled with a measured amount of sterile water. For management, follow Trust document WPR35411 – Balloon gastrostomy continuing care sheet.
• pH testing is not required. However it is good practice to examine and measure the external length of the tube for signs of movement. If in any doubt that the tube is not in the correct position – DO NOT USE and seek advice from the medical team

• Low profile devices require a right angled feeding extension set which can be obtained from endoscopy

**Jejunostomy tubes and PEG tubes with jejunal extension** – also known as PEJ (Percutaneous Endoscopic Jejunostomy)

Jejunal feeding tubes are used to deliver enteral nutrition into the jejunum and not the stomach. They are indicated where gastric feeding has failed and the anticipated need for artificial nutrition support exceeds 6 weeks. A jejunostomy is most commonly placed surgically and secured externally with stitches. PEJ is an extension tube which threads through an existing gastrostomy and into the jejunum.

**Key considerations**

• Should be considered before parenteral nutrition

• They enable enteral nutrition and fluid to be delivered directly into the stomach via an enteral feeding pump. Bolus feeding is not advisable

• Should not be rotated

• pH testing is not required. However it is good practice to examine and measure the external length of the tube for signs of movement. If in any doubt that the tube is not in the correct position – DO NOT USE and seek advice from the medical team

• Jejunal tubes are often narrower and are at higher risk of blockage, therefore require flushing with 30mls of sterile water 4 hourly

**3.5.3 Enteral Feeding - Administration, Equipment and Storage**

It is essential that all pre-existing enterally fed patients and new patients being considered for enteral feeding be referred to the dietitian for assessment and intervention.

The dietitian will determine whether the patient requires pump feeding or bolus feeding and then will complete the relevant Enteral Nutrition Regime - pump (WPR19041) bolus (WPR28660), order the feed and file the regime within the nursing notes. The practical procedure for administering feed via a pump or bolus route can be found on pages 16 and 17. The feed will be delivered to the ward on the catering trolley. It is the responsibility of the nursing staff to follow the enteral feeding regime and to complete the enteral feed prescription table on the back of the regime.

The prescribed feeds are nutritionally complete. No additional water, electrolytes or medications
should be added to the feed. Only specialised feed, water and prescribed medications are permitted to be administered via enteral feeding tubes. It is a nursing responsibility to highlight to the pharmacist if prescribed oral medicines are to be administered via an enteral feeding tube. Further information can also be obtained from the British Association of Parenteral and Enteral Nutrition (BAPEN) guidelines see Appendix 10.

**What do I do if there is no dietitian available to assess my patient for enteral feeding?**

- At the weekend or during bank holidays, when dietetic advice is not available the Out of Hours Feeding Regime can be consulted (see appendix 8). Prior to using this regimen, all patients should have a weight recorded and their blood biochemistry tested. Caution should be used for patients who are severely malnourished or who have abnormal blood biochemistry (see Refeeding Section 3.7).

**What should I do if my patient has a feed related problem?**

- Please refer to Appendix 9 for the troubleshooting guide to enteral feeding
- Contact your ward dietitian for further guidance

It is the responsibility of the nursing to obtain enteral feeding equipment from the following areas:

- **DRI** - enteral feeds, giving sets, NG tubes and reservoirs are available from catering
- **Montagu** - enteral feeds and giving sets are available from catering and NG tubes are stored in the OT cupboard
- **Bassetlaw** - enteral feed, giving sets and reservoirs are available from catering and NG tubes from the dietetic department

**Pumps**

All wards have their own supply of enteral (Infinity) feeding pumps. Additional pumps can be obtained from the Medical Equipment Library at **DRI** and **Bassetlaw**. At **Montagu** pumps are stored in the OT room.

It is a requirement that:

- They are stored safely, kept clean (daily) and in good working order
- A record is kept of the patient they are used for - this is a requirement for risk management
- The medical equipment library is informed, if the pump is faulty. The incident must be documented in the patient’s nursing record if the fault occurred during use
- The pump is only operated by trained staff
• The pumps are not given to the patient to take home on discharge – see section on discharge planning – Section 3.5.5.

**Giving Sets**

• Giving sets are designated for single patient use and should be replaced after 24 hours

• Giving sets must never be washed and reused

• Whilst disconnected the giving set should be stored with the dust cap on to keep the system closed

**Syringes**

• Syringes for enteral feeding must be marked for oral/enteral use

• 60ml Female luer (purple) enteral/oral syringes are the syringe of choice

• All enteral syringes are single use

• Sterile water should be used for tube flushing

**Reservoirs**

• Reservoirs are sterile and should be discarded after 24 hours

• If a sterile feed is decanted the reservoir should not be topped up

• If used for reconstituted feeds they should be discarded after 4 hours

**Storage of Feed**

• Unopened bottles of feed should be stored at room temperature, in a clean environment and away from any form of heat source

• Any opened feed may be stored in the refrigerator (containers should be covered and labeled) for up to 24 hours, but then discarded if not used. Any open feed from the refrigerator should be allowed to return to room temperature before being administered (this process usually takes about 20 minutes)

• For those patients that are on enteral feed and are isolated, feed should not be removed from the room due to infection control, any open unused feed should be discarded after 4 hours (i.e. feed used for bolus regimes) and a new bottle should be used
Pump Feeding – procedure

**Equipment:**
Prescribed enteral feed (at room temperature), Feeding regime, Infinity Pump, Giving set, Sterile water, Enteral purple 60 ml syringe, pH strips, Gloves and apron, Drip stand

**NG**

Explain procedure to patient and maintain patient’s body position at a 45° angle during feeding and for at least for 1 hour after. Ensure they do not lay flat.

Wash hands according to Trust policy and use gloves and apron.

Check position of NG tube as per up to date policy, document and sign the result of pH on the back of the enteral feeding regime.

Unscrew the feeding end of the NG tube. Attach 60ml syringe, slowly flush the tube using up to 50mls sterile water (or amount indicated on feeding regime).

Check the expiry date and batch number and document on the back of the feeding regime. Shake feed pack.

Remove the giving set from the packaging and unscrew the cap on the feeding pack but leave the foil intact. Screw the giving set onto the pack and hang on drip stand.

Advance the spike and squeeze the drip chamber until its 1/3 full.

Open the pump door and insert the giving set into the pump then close the door.

Turn the pump on – holding the stop/start key for 2 seconds.

Prime the giving set by holding the fill set key for 2 seconds and the giving set will automatically fill with feed.

Set infusion rate – as per enteral feeding regime and document on the back of the enteral feeding regime the time started and stopped.

Remove cap from the giving set and connect end of giving set to the NG tube.

Press Start to commence feeding.

**NJ / PEG/PEJ/Jejunostomy**

The NG procedure is applicable to NJ PEG/PEJ/Jejunostomy feeding EXCEPT – pH testing is not indicated, however it is good practice to examine and measure the external length of the tube for signs of movement. If in any doubt that the tube is not in the correct position – DO NOT USE and seek advice from the medical team.

**Balloon Gastrostomy/RIG**

The NG procedure is applicable to Balloon Gastrostomy/RIG feeding EXCEPT – pH testing IS indicated and it is good practice to examine and measure the external length of the tube for signs of movement.

It is important to check the position of the tube using a 5ml syringe when:
- the tube has been changed;
- after checking balloon inflation volume;
- weekly as per protocol – when inflation volume is replaced.

The NG procedure is applicable to NJ PEG/PEJ/Jejunostomy feeding EXCEPT – pH testing is not indicated, however it is good practice to examine and measure the external length of the tube for signs of movement. If in any doubt that the tube is not in the correct position – DO NOT USE and seek advice from the medical team.
Bolus Feeding Procedure

**Equipment:**
Prescribed feed (at room temperature), feeding regime, 60ml purple enteral syringe, sterile water, gloves and apron

---

**PEG**

Explain procedure to patient. Maintain patient’s body position at a minimum angle of 45 degrees during feeding and for at least for 1 hour after. Ensure they do not lay flat.

Wash hands according to Trust policy and put on gloves and apron.

Check the position of the PEG, by looking at the graduated markings on the tube and compare this with the information recorded following insertion. If in any doubt that the position of tube has moved – aspirate some gastric contents and check pH level. Following this, if in any doubt that the tube is not in the correct position – **DO NOT USE** and seek advice from the medical team.

Ensure that the clamp on the PEG is open and remove cap on the end of the tube.

Attach 60ml purple enteral syringe, gently and slowly flush the tube using up to 50mls sterile water (or amount indicated on feeding regime).

Check the expiry date and batch number and document on the back of the feeding regime on the feed. Shake the pack.

Remove plunger from the 60ml purple enteral syringe and connect to the PEG.

Dispense the prescribed amount of feed via the syringe. Hold the syringe so that gravity is used to allow the feed into the stomach – a bolus should take a minimum of 10 minutes to complete. If necessary, lower the syringe to a lower level to decrease rate of delivery. Do not allow the syringe to be completely empty before adding more feed.

Post feed gently and slowly flush the tube using up to 50mls sterile water (or amount indicated on feeding regime).

Remove the syringe from the PEG and replace cap on the end of the tube.

Store unused feed in a refrigerator, labelled with patient’s name, date and time of opening, and use with 24 hours.

Record amount of feed given and flushes.

---

**Balloon Gastrostomy / RIG**

The procedure is applicable to PEG feeding **EXCEPT** – pH testing **IS** indicated and it is good practice to examine and measure the external length of the tube for signs of movement.

It is important to check the position of the tube using a 5ml syringe when:
- the tube has been changed;
- after checking balloon inflation volume;
- weekly as per protocol – when inflation volume is replaced.
3.5.4 Weaning from Enteral to Oral Nutrition

Meeting nutritional goals remains a key aim throughout a patient's stay. The transition from enteral feeding to oral intake should be a stepwise process and should not compromise previous good management.

Overnight enteral feeding and oral intake from a variety of sources should be actively encouraged. This should include enriched and soft diets, an adapted meal pattern and nutritional sip feeds. The provision of nutritional adequacy requires multidisciplinary team commitment.

Typically patients present with many barriers to achieving good nutritional intake via the oral route, these include:

- Loss of appetite
- Increased nutritional requirements
- Nausea/vomiting or other GI disturbance
- Ward environment
- Ability to self-feed
- Lack of mobility
- Pain

All of the above should be considered and strategies should be implemented to improve the potential to take oral diet.

Cessation of enteral tube feeding should not be considered until the patient has demonstrated that they can consistently consume at least 50% of their energy requirements from the oral route. Please note, a bowl of hospital soup and a portion of ice cream typically provide around 120kcal – this cannot be classed as adequate.

3.5.5 Discharging Patients Home on Enteral Feed

It is important to keep the dietitian involved in the discharge planning of patients requiring enteral feeding at home.

Adherence to the following points will aid a smooth transition from hospital to home:

- The dietitian must be notified of the expected date of discharge at least 3 working days (5 working days if patient is transferring out of area) prior to discharge
- The nurse responsible for the patient’s discharge will identify with the patient, an individual (the patient or carer) who will be responsible for the care of the enteral tube and feed administration upon the patient’s return to the community
The dietitian will facilitate appropriate training by the Nutricia nursing team for patient/family/carer and ensure onward referral to community dietitian.

Ensure that the following checklist is ready for discharge

<table>
<thead>
<tr>
<th>PEG pump</th>
<th>Feed</th>
<th>Giving sets</th>
<th>Syringes</th>
<th>Patient literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEG bolus</td>
<td>Yes</td>
<td>7-10 days supply</td>
<td>7-10 days supply</td>
<td>2 x 60ml *</td>
</tr>
<tr>
<td>Responsibility for ordering</td>
<td>Dietitian</td>
<td>Ward</td>
<td>Ward</td>
<td>Ward</td>
</tr>
</tbody>
</table>

* For balloon gastrostomies patient will require 1 x 5ml syringe for refreshing the balloon

Failure to implement the above points in a timely manner may result in unnecessary delays in discharge.

Discharging patients to a complex assessment pathway (CAP) bed on enteral feeding

For patients transferring to a CAP bed the nursing team should inform the Clinical Procurement Specialist in the Supplies Department (ext. 6427 or 07763 139086) who will ensure the patient receives on-going supplies of feed and ancillaries as appropriate via Hospital transport, until they are discharged to their final place residency.

3.5.6 Enteral Nutrition - Good Practice Points

- Use the Out of hours regime as required
- Refer to the dietitian at the earliest opportunity
- A multidisciplinary approach is key to successful management
- Consider the risk of refeeding syndrome in all patients
- Weaning from EN should be planned and another route of feeding proven adequate before EN is stopped
- Accurate monitoring of all enteral and oral intake is essential
- Ensure adequate notice for discharge
3.6 Parenteral Nutrition (PN)

Parenteral nutrition is an intravenous administration containing nutrients and electrolytes given to those who are unable to achieve adequate nutritional intake or those with a non-functioning or non-accessible gut may require feeding into a vein (parenterally).

All possible avenues to provide adequate enteral nutrition (NG, NJ, prokinetics) should be explored prior to referral for parenteral nutrition.

At the point of writing – the Nutrition Support Team is currently undertaking a pilot programme. A referral to the team should be made for all patients for parenteral nutrition. The team can be contacted on:

- Chioma – Pharmacist bleep 1586
- Hannah – Nutrition nurse bleep 1812

It is essential that all patients being considered for parenteral feeding be referred to the dietitian for assessment and intervention.

- 3.6.1 Indications for Parenteral Feeding

**Short Term Indications for PN**

- Prolonged gastrointestinal ileus and nil by mouth following major surgery
- Proximal high output or enterocutaneous fistula
- Severe acute pancreatitis were EN cannot be established
- Multiple organ failure where nutritional requirements cannot be met via the enteral route

**Long Term Indications for PN**

- Chronic malabsorption
- Radiation Enteritis
- Motility disorders
- Short bowel syndrome
- Inflammatory bowel disease

- 3.6.2 Routes and Ordering of Parenteral Nutrition

All PN needs to be administered through a dedicated intravenous feeding line using volumetric pumps with in line air alarms. Suitable venous access routes include:

- Centrally inserted venous catheters (CVC)
- Peripherally inserted central venous catheters (PICC)

Peripheral catheters (Cannula) – may be required where central access is not achievable, however routine use is not advised.
**How to order**

Prior to prescribing PN, patients should be nutritionally assessed by a Dietitian. This requires a timely referral to the dietitian as week day PN orders must be completed by 11am as all PN is compounded at Bassetlaw. Orders made before 11am will be back on the ward that evening. If PN is required over a weekend, it must be ordered by 11am on Friday.

**Out of hours provision**

The decision to commence PN is never an emergency. However if the opinion of the patient’s consultant is that PN is required out of hours it is essential to use a cautious approach.

Points to consider;

- Assess the patient’s risk of refeeding syndrome

- Use a Kabiven 4 if central access available for all out of hours PN – these are now available from pharmacy with essential additions (Solvito, Vitlipid and Addittrace)

- Consider half a bag of Kabiven 5 for patients with peripheral access only

- Ensure a full dose daily intravenous vitamin B preparation (Pabrinex) is given to the patient until full additions can be established in a tailored bag

**3.6.3 Formulations and Prescription for Parenteral Nutrition**

At Doncaster and Bassetlaw PN comes as a 3 chamber all in one bag, where carbohydrate, nitrogen and fat sources are in separate chambers. These bags have a range of calorie, nitrogen and electrolyte contents and always require additions of vitamins, trace elements and sometimes extra electrolytes.

There are 10 ready-made bags available for use from the Kabiven range. Certain bags must never be given via a peripheral line – See table below.

<table>
<thead>
<tr>
<th>PN Type</th>
<th>Peripheral</th>
<th>Central</th>
</tr>
</thead>
<tbody>
<tr>
<td>SmofKabiven 4</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Kabiven 5</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Kabiven 7</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>SmofKabiven 8EF</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Kabiven 8</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Kabiven 9</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Kabiven 11</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Kabiven 14</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>SmofKabiven 12EF</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>SmofKabiven 16EF</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
**Essential Additions**

These additions should be added to every bag of PN prescribed;

- Additrace (Trace elements)
- Vitlipid N Adult (Fat soluble vitamins)
- Solvito N (Water soluble vitamins)

These additions are compatible with peripheral or centrally administered PN bags. It is important that when starting PN full requirements of electrolytes, vitamins and trace elements are added to the bag, based on individual need.

**Prescription**

In order for the most appropriate PN bag to be prescribed it is essential that the following bloods are taken daily and results should be available by **10:30am**.

- U&E
- LFT’s
- Bone
- Mg
- FBC
- INR +CRP (baseline)

**3.6.4 Parenteral Nutrition - Administration, Equipment and Storage**

It is beyond the scope of this policy to discuss the procedure for use of CVC/PICC line for the administration of PN. An extensive practical guide to this can be found in Trust policy – PAT/T 23 – Central Venous Access Devices (CVADs) Care and Management Policy.

Only trained and competent staff should handle PN lines.

Once PN bags have been prepared and delivered to the ward they must be stored in a clean dedicated refrigerator at 2-8°C, this helps to prevent microbial contamination and growth. PN should be removed from the fridge for 2hrs before hanging to allow them to reach room temperature prior to administration.

All PN delivered from pharmacy should come with a red protective cover. This should remain over the PN bag at all times as this helps to prevent oxidative damage from light.

Once connected PN should **NEVER** be administered beyond 24hrs – if for any reason the PN administration has been disrupted the administration should be discontinued within the 24hr period and any remaining PN discarded.
Continuous feeding over a 24hr period allows the delivery of larger volumes at a constant rate. This is the preferred feeding method. However in some cases patients can be fed over shorter periods of time (cyclic feeding 12-24hrs).

The PN administration set must be changed every 24hrs when the PN bag is changed, as excessive hanging time increases the risk of infectious complications.

- **3.6.5 Parenteral Nutrition - Monitoring**

It is important that the following parameters are monitored and clearly document during PN administration.

<table>
<thead>
<tr>
<th>Parameter to be monitored</th>
<th>Frequency of monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weight</strong></td>
<td>Daily weights until advised by Dietitian (Record on weight chart)</td>
</tr>
<tr>
<td><strong>Blood Sugars</strong></td>
<td>1 – 2 times daily for non-diabetic patients 4 times daily for diabetic patients (Record on BM monitoring sheet)</td>
</tr>
<tr>
<td><strong>Strict fluid balance</strong></td>
<td>Daily Record all sources of input/ output (Record on fluid balance charts)</td>
</tr>
<tr>
<td><strong>Food charts</strong></td>
<td>Daily if taking oral intake (Record on food charts)</td>
</tr>
<tr>
<td><strong>MUST</strong></td>
<td>Baseline and then weekly (Record on MUST charts)</td>
</tr>
<tr>
<td><strong>Bloods</strong></td>
<td>U&amp;E, LFT’s, Bone, Mg, FBC (daily) Once stable 1 - 2 per week</td>
</tr>
<tr>
<td></td>
<td>INR &amp; CRP (baseline)</td>
</tr>
</tbody>
</table>

- **3.6.6 Weaning from Parenteral Nutrition**

Introduction of oral or enteral feed should be accompanied by a reduction in PN infusion rate. This will avoid both fluid overload and overfeeding.

As energy consumption from oral or enteral nutrition increases, the amount of PN can then be reduced by an equivalent amount. Intestinal tolerance to at least 50% of nutritional requirements should be achieved consistently before PN is withdrawn. This process should be dietetic led.

- **3.6.7 Parenteral Nutrition - Good Practice Points**

  - Parenteral Nutrition is never an emergency
• Multidisciplinary approach is key to successful management

• Consider the risk of refeeding syndrome in all patients

• Ensure PN meets full requirements for vitamins, minerals and trace elements from day 1

• Weaning from PN should be planned and another route of feeding proven adequate before PN is stopped

• Recommended bag of choice for out of hours PN is Kabiven 4

• All lines used for parenteral feeding should be managed in accordance with PAT/T 23 – Central Venous Access Device (CVADs) Care and Management Policy.

### 3.7 Refeeding Syndrome

Refeeding syndrome is defined as “severe fluid and electrolyte shifts and related metabolic implications in malnourished patients undergoing refeeding”. All patients are potentially at risk, whether they are fed via the oral, enteral or parenteral route; however, the following groups are at high risk:

**High risk** of developing refeeding problems if **one or more** of the following are present:

- BMI < 16kg/m²
- Unintentional weight loss of > 15% in the last 3-6 months
- Little or no nutritional intake for more than 10 days
- Low levels of potassium, phosphate or magnesium prior to feeding

OR

**Two or more** of the following:

- BMI <18.5kg/m²
- Unintentional weight loss of > 10% in the last 3-6 months
- Little or no nutritional intake for more than 5 days
- History of alcohol abuse, or drugs including chemotherapy, insulin, antacids and diuretics

For those patients identified at high risk the following should be considered:

- Providing immediately before and during the first 10 days of feeding: oral thiamine 200-300mg daily, Vitamin B Co-strong 1-2 tablets 3 times a day OR full dose daily IV Vitamin B preparation AND a balanced multivitamin/trace element supplement once daily

- At risk patients should have baseline electrolytes, corrected calcium, phosphate and magnesium levels checked and corrected as required and repeated on a daily basis
In extreme cases:

I.e. BMI <14kg/m² and / or negligible intake for >15 days, use 5kcal/kg of body weight per day, until full assessment from the dietitian

Other Considerations

- If the patient has diabetes, they will need their blood glucose levels monitoring and may need an adjustment to their insulin or oral hypoglycaemic medication. Please discuss this with the medical team.
- Any form of nutritional support given to at risk patients out of hours needs careful monitoring and involvement of the medical team.

3.8 Ethical and Legal Considerations

Nutritional support is not always appropriate. Decisions on providing, withholding or withdrawing nutrition support require a consideration of both ethical and legal principles, both at common law and statute including the Human Rights Act 1998.

Patients have the right to refuse treatment for various reasons – in these cases the following policies should be followed:

- PAT/PA 19 - Mental Capacity Act 2005 - Policy and Guidance, including Deprivation of Liberty Safeguards (DoLS)
- PAT/PA 2 – Consent to Examination of Treatment Policy.

4. TRAINING/ SUPPORT

All wards should have a named nutrition link nurse, their role is to promote nutrition and act as MUST champions. Link nurse meeting occur quarterly in addition to an annual nutrition awareness event.

There are a number of nutritional resources and e learning packages, which can be accessed on the Intranet – via the Nutrition and Dietetics Homepage.

5. MONITORING COMPLIANCE WITH THE PROCEDURAL DOCUMENT

Formal review of compliance will be monitored using the following points:

- Any incident of non-adherence to the policy should be reported on DATIX
- The Nutrition Steering Group will ensure that systematic audit and review of this policy is undertaken and will report on and cascade outcomes
This policy will be reviewed:

- When new national guidance is received
- When newly published evidence demonstrates need for change in current practice
- Every 3 years

6. ABBREVIATIONS

BAPEN – British Association of Parenteral and Enteral Nutrition
BMI – Body Mass Index
CAP – Complex Assessment Pathway
CVC – Central Venous Catheter
EN – Enteral Nutrition
MDT – Multidisciplinary Team
MUST – Malnutrition Universal Screening Tool
NG – Nasogastric
NJ – Nasojejunal
PEG – Percutaneous Endoscopic Gastrostomy
PEJ - Percutaneous Endoscopic Jejunostomy
PICC – Peripheral Inserted Central Catheter
PN – Parenteral Nutrition
RIG - Radiologically Inserted Gastrostomy
SALT – Speech and Language Therapist
TTO’s – To Take Out

7. EQUALITY IMPACT ASSESSMENT

An Equality Impact Assessment (EIA) has been conducted on this procedural document in line with the principles of the Equality Analysis Policy (CORP/EMP 27) and the Fair Treatment for All Policy (CORP/EMP 4).

The purpose of the EIA is to minimise and if possible remove any disproportionate impact on employees on the grounds of race, sex, disability, age, sexual orientation or religious belief. No detriment was identified. (See Appendix 11).

8. ASSOCIATED TRUST PROCEDURAL DOCUMENTS

- PAT/IC 22 – Kitchen Hygiene and Refrigerator Monitoring Policy for Wards and Clinical Areas
- PAT/IC 5 - Hand Hygiene
- PAT/PA 16 - Protected Mealtimes Policy
- PAT/PA 19 - Mental Capacity Act 2005 Policy and Guidance, including Deprivation of Liberty Safeguards (DoLS)
9. REFERENCES


2. British Association of Parenteral and Enteral Nutrition (BAPEN) [www.bapen.org.uk]


APPENDIX 1 – DIETETIC REFERRAL AND RECORD

<table>
<thead>
<tr>
<th>Doncaster and Bassetlaw Hospitals</th>
<th>NHS Foundation Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIETETIC REFERRAL AND RECORD</strong></td>
<td></td>
</tr>
</tbody>
</table>

**FILL IN ASSOCIATED DETAILS**

- **Unit Number:** ..............................
- **Surname:** .................................
- **Forename(s):** .............................
- **Address:** ..................................
- **D.o.B.:** .................................

**Hospital:**  
- [ ] Doncaster  
- [ ] Montagu  
- [ ] Bassetlaw  
- [ ] Retford  
- [ ] Tickhill Road

**REFERRAL**

- **Date of referral:** ..........................
- **Clinic/Ward:** .............................
- **Diagnosis/Reason for referral:** .........
- **MUST Score:** ..............................
- **Consultant/GP/RGN:** ........................
- **Designation & Name:** .....................
- **Signature:** ...............................
- **Date & Time:** .............................

**WARNING - the patient is:**

- Sensitive to: ..............................
- Allergy to: .................................
- On Anticoagulant ..........................
- On Steroids:  
  - [ ] Late sensitive  
  - [ ] Date: ...............................
  - [ ] MRSA  
  - [ ] Date: .............................

---

**DIETETIC RECORD - to be Completed by Dietician**

- **Previous Medical History:** ..............
- **Social History:** ..........................
- **Relevant Drugs:** ..........................
- **GP/AHP/DN contacted (give details):** ....
- **Diet History/Requirements:** ..............
- **Diet Sheets given (state):** ..............
- **Contact Name:** ..........................
- **Contact Telephone No.:** ..................

**Designation & Name:** ........................
- **Signature:** .............................
- **Date & Time:** ...............................

---

*Appended by:*

- [ ] White, filed in notebooks
- [ ] Bottom copy - Blue, Dietetics

**Page 28 of 45**
Dysphagia

Oropharyngeal or oesophageal problems may give rise to dysphagia, a difficulty or discomfort in swallowing.

Dysphagia can result in problems in swallowing both food and liquid.

If there is any concern about a patient’s ability to swallow a referral to the Speech and Language Therapist (SALT) is required.

Following a SALT assessment, it is essential that the correct texture of food /drink be offered to the patient. Where there is weight loss, modified texture, fortified foods and / or supplements should be used.

All patients with a diagnosis of dysphagia, which are on a modified texture diet, should be referred to the dietitian for assessment.

Oral hygiene

In patients that are nil by mouth it is imperative that good oral hygiene is carried out to maintain oral comfort and prevent infection. Regular tooth brushing, moistening the mouth with water, use of mouthwash and lip salve or moisturising cream on the lips is helpful.

Monitor for signs of oral Candida and discuss with medical staff the need for a prescription of Nystatin.

Thickened fluids

The thickening agent used on the ward is *Nutilis Clear* and can be obtained directly from catering.

Nutilis Clear is an advanced thickening powder that, in addition to the benefits of the older Nutilis Powder, does not change the colour or transparency of thickened foods or liquids. Please note Nutilis Clear will not thicken any juice based supplements (*Fortijuce*). In these circumstances stocks of the older Nutilis powder can be obtained from catering.

Nutilis should not be added to boiling liquids as clumping of the product may occur. Allow hot foods to cool slightly before adding. Nutilis shakers are available for ward use from the diet bay in catering/dietetic department. Please note that boiling or very hot liquids shouldn’t be added to shakers due to risk of scalding. Allow carbonated drinks to go flat by stirring prior to thickening.
It is important to follow the manufacturer’s instructions documented on the product for the number of scoops of product required to achieve the correct consistency. Please note that there are variations in scoop size between Nutilis powder (3g) and Nutilis Clear (4g).

*The quantity of nutilis powder required may vary slightly depending on the temperature or thickness of the liquid*

**Tips for mixing Nutilis thickener:**

For the best results, add the powder to the cup, glass, bowl or shaker before adding the drink or liquid.

**Using a fork or whisk**

1. Measure the powder into a cup, glass, bowl or shaker
2. Add the drink or liquid to the powder
3. Stir vigorously with a fork or whisk for 15-30 seconds
4. Leave to stand for a minute
5. Stir gently for 5 seconds and serve

**Using a fork or shaker**

1. Measure the powder into a shaker
2. Add drink or liquid to the shaker
3. Screw on lid and shake vigorously for 15-30 seconds
4. Leave to stand for a minute
5. Stir gently for 5 seconds and serve

It is essential that all drinks are given at the appropriate consistency as recommended by SALT.

**Additional information:**

When dealing with patients who have swallowing problems, don’t:

- Use straws, spouts or syringes unless directed
- Give mixed consistencies e.g. minestrone soup, yoghurt with bits, unless directed by SALT
- Leave a water jug by a person who is nil by mouth or on thickened fluids

**Note that jelly or ice-cream is not suitable when patients are on thickened fluids**
### Suitable snacks for patients on a Texture C (Pureed Diet)

- Smooth Creamy Yoghurt
- Smooth Fromage Frais
- Pureed Fruit – e.g. apple, pear
- Ready-made pot of custard

### Suitable snacks for patients on a Texture D (Pre Mashed Diet)

- Smooth Creamy Yoghurt
- Smooth Fromage Frais
- Ready - made pot of custard
- Banana – mashed
- Rice pudding (pot)
- Mashed fruit, e.g. stewed apple, tinned pear

### Suitable snacks for patients on a Texture E (Fork Mashable Diet)

- Smooth Creamy Yoghurt
- Smooth Fromage Frais
- Ready - made pot of custard
- Thinly sliced apple/pear/peach/banana
- Soft moist sponge cake (no bits) well soaked in cream/ custard

If you are unsure whether these snacks are appropriate for your patient’s condition please seek advice from your ward dietitian/ SALT.
APPENDIX 3 - MUST

'MALNUTRITION UNIVERSAL SCREENING TOOL' ('MUST')

**Step 1**
BMI kg/m² Score
- >20 (>30 obese) = 0
- 18.5 - 20 = 1
- <18.5 = 2

**Step 2**
Unplanned weight loss in past 3 - 6 months % Score
- <5 = 0
- 5 - 10 = 1
- >10 = 2

**Step 3**
Acute Disease Effect Score
If patient is acutely ill and there has been, or is likely to be, no nutritional intake for >5 days, Score 2

**Step 4**
Overall risk of malnutrition
Add scores together to calculate overall risk of malnutrition.
Score 0 = Low Risk  Score 1 = Medium Risk  Score 2 or more = High Risk

**Step 5**
Management Guidelines

0 Low Risk
- Repeat screening weekly and record score.
- Ensure nutritional needs are met through the standard menu.

1 Medium Risk
- Order and encourage high-energy/fortified diet.
- Offer snacks between meals.
- Document dietary intake for 3 days.
- If no improvement in oral intake, commence Oral Nutrition Supplements (ONS) 1-2 ONS.
- Repeat screening weekly.
- If weight stable/gained, continue.
- If weight continues to fall, refer to the dietitian.

2 - 3 High Risk
- Order and encourage enriched/high-energy/fortified diet and ONS if parts of meals are not taken.
- Document dietary intake for 3 days.
- Repeat screening weekly.
- If weight stable/gained, continue.
- If weight continues to fall, refer to the dietitian.

4 - 6 High Risk
- Commence as above.
- Contact dietitian immediately for full nutritional assessment.

Acute Disease Effect
Acute disease effect is applicable to patients who are acutely ill. For example: Critically ill, swallowing problems (after stroke), head injury, GI surgery etc.

All risk categories:
- Treat underlying condition and provide help and advice on food choices, eating and drinking when necessary.
- Refer patients on special diets or where underlying disease requires dietary management e.g. diabetes, COPD, cancer, liver disorders, renal disorders, dysphagia.
- Patients with pressure ulcer grade 3/4.
- Patients with complex difficulty with high 'MUST' score follow management guidelines.

Obesity:
- Record presence of obesity. For those with underlying conditions, these are generally controlled before the treatment of obesity.
- If patient is clinically stable, has a BMI >30, or >28 with morbidities and wishes to lose weight, please use the Weight Management Information Sheet on your ward.
- If patient requests to see the dietitian, please use the dietetic referral form.

Re-assess subjects at risk as they move through care settings.

Note: re 'MUST' score interpretation
- For individuals with weight loss, contact dietitian for advice if no improvement in weight after appropriate strategies have been put in place.
- For patients who refuse to take food and drink, ensure that the strategies for dealing with food refusal have been considered and documented. If further guidance is then required and the patient continues to lose weight, contact the dietitian.
- Oral nutritional supplements and other nutritional supplements (e.g. vitamins) that are documented currently on the drug chart and are to be continued after discharge should be documented on the discharge sheet and 7 days supply of the product provided.
### APPENDIX 4 – FOOD RECORD CHART

<table>
<thead>
<tr>
<th>Ward:</th>
<th>OFFERED</th>
<th>TAKEN</th>
<th>Sign &amp; Print Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>Describe type of food served</td>
<td>Portion (S/M/L)</td>
<td>Amount consumed</td>
</tr>
<tr>
<td></td>
<td>Fluid (ml)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breakfast</td>
<td>Cereal</td>
<td>NB</td>
<td>1/4</td>
</tr>
<tr>
<td></td>
<td>Milk / Sugar</td>
<td>NB</td>
<td>1/4</td>
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<tr>
<td></td>
<td>Bread / Toast</td>
<td>NB</td>
<td>1/4</td>
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<tr>
<td></td>
<td>Spread</td>
<td>NB</td>
<td>1/4</td>
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<tr>
<td></td>
<td>Cooked Item</td>
<td>NB</td>
<td>1/4</td>
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<td></td>
<td>Drinks</td>
<td>NB</td>
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<td>Supplement</td>
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<tr>
<td>Mid - AM</td>
<td>Snacks</td>
<td>NB</td>
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<tr>
<td></td>
<td>Drinks</td>
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<td></td>
<td>Supplement</td>
<td>NB</td>
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<tr>
<td>Lunch</td>
<td>Soup</td>
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<td></td>
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<td>1/4</td>
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<td></td>
<td>Potato / Rice</td>
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<td>1/4</td>
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<td></td>
<td>Vegetables</td>
<td>NB</td>
<td>1/4</td>
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<tr>
<td></td>
<td>Pudding</td>
<td>NB</td>
<td>1/4</td>
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<td></td>
<td>Drinks</td>
<td>NB</td>
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<td>Supplement</td>
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<td>1/4</td>
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<tr>
<td>Mid - PM</td>
<td>Snacks</td>
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<td>1/4</td>
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<td>Drinks</td>
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<td>Main Item</td>
<td>NB</td>
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<tr>
<td></td>
<td>Vegetables</td>
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<tr>
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<td>Pudding</td>
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<td>Supplement</td>
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</tr>
<tr>
<td></td>
<td>Supplement</td>
<td>NB</td>
<td>1/4</td>
</tr>
</tbody>
</table>

Must be countersigned by nursing staff daily:

Sign: ___________________________  Print Name: ___________________________
APPENDIX 5 – DIETARY MANAGEMENT OF DIABETES AT WARD LEVEL

Dietary Management of Diabetes at ward level

Good dietary management is fundamental in the treatment of all types of diabetes. A well balanced diet can help to:

- Control blood glucose levels
- Control blood lipids
- Control blood pressure
- Prevent short and long term diabetic complications

Implementation of guidelines at ward level

- Adult patients with diabetes can order from the standard menu but should be encouraged to choose dishes coded as suitable for diabetes (D) – shade in the Diabetic box at the top of the standard menu

- Encourage patients with diabetes to have a moderate portion of starchy carbohydrate at each meal (e.g. plain cereals, bread, potatoes, rice and pasta) as this will give improved glycaemic control and reduces the risk of hypoglycaemia.

- Encourage patients to avoid high sugar/fat desserts and snacks and to order alternatives that are more suitable (see snack list).

- Fruit should be encouraged as a suitable snack/dessert but patients should aim for only one portion of fruit at one time to avoid rapid increases in blood glucose. One portion of fruit includes:
  - A handful of small fruits (e.g. grapes)
  - One piece of fruit (e.g. one apple, one orange or a medium banana)
  - One tablespoon of dried fruit
  - 150mls of fruit juice (NOTE: If taken to excess this can significantly increase blood glucose)

Patients with diabetes and a poor appetite/weight loss

- If a patient has a poor appetite/weight loss and is eating very little then follow MUST guidelines but closely monitor blood glucose levels and liaise with diabetes specialist nurse for advice
- All patients with diabetes receiving enteral or parenteral nutrition should be referred to the diabetes specialist nurse
**Suitable snacks for patient with diabetes**

Patients with diabetes who are being treated with either twice-daily insulin or a sulphonylurea may require a small snack (10-15g carbohydrate) to maintain their blood glucose. Suitable snacks, which can be ordered from catering, include:

- Piece of fruit
- Light/diet yoghurts (e.g. Muller light)
- 2 x plain biscuits (e.g. rich tea or digestive)
- 2 x crackers with cheese
- 1 x slice of toast

Suitable suppertime snacks for patient with diabetes (20g carbohydrate) include:

- 1 x Scone
- 1 x Teacake
- 2 x Toast
- Small bowl of plain cereal (30g) with low fat milk

**Guideline for the use of nutritional supplements in patients with diabetes**

1) If a patient has poorly controlled diabetes (unstable blood glucose) and nutritional supplements are required, close monitoring and liaison with the specialist team on how best to manage blood glucose is recommended.

2) If a patient has well controlled diabetes and nutritional supplements are required, then recommended nutritional supplements may be commenced. The supplements of choice for a patient with diabetes are:
   - Fortisip Compact – Neutral only
   - Fortisip Compact Fibre

3) Fortijuce contains a greater amount of carbohydrate (33.5g/100g) and sucrose. It should only be prescribed after individual assessment has been carried out and based on the clinical judgment of a dietitian.

4) Nutritional supplements should be sipped slowly over a period of 20 – 30 minutes to prevent a rapid rise in blood glucose levels.

**Dietary education for patients with diabetes**

- Patients newly diagnosed with either Type 1 or Type 2 diabetes should be referred to the dietitians for advice prior to discharge – the dietitian will assess whether intervention on the ward is required or an outpatient appointment may be offered.
### APPENDIX 6 – FOOD REFUSAL

#### Strategies for dealing with food refusal

<table>
<thead>
<tr>
<th>Possible reason for refusal</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dislike of food being offered</td>
<td>Establish preferences</td>
</tr>
<tr>
<td>Unfamiliar foods being offered</td>
<td>Know cultural /religious requirements</td>
</tr>
<tr>
<td>Sore mouth / Dentures</td>
<td>Promote good oral hygiene –treat infections. Offer dental checks</td>
</tr>
<tr>
<td>Concerns regarding safe swallow</td>
<td>Refer to SLT if swallowing problems</td>
</tr>
<tr>
<td>Poor mobility/manual dexterity</td>
<td>Offer adaptive cutlery / assistance at meal times</td>
</tr>
<tr>
<td>Reluctance to eat</td>
<td>Explain when meal times are, prepare before meals – regular people to feed if needed</td>
</tr>
<tr>
<td></td>
<td>May take food from relatives</td>
</tr>
<tr>
<td></td>
<td>Give finger foods, small regular meals given throughout day not just at set meal times (see examples below)</td>
</tr>
<tr>
<td></td>
<td>Physical contact – hold hands, eye contact</td>
</tr>
<tr>
<td>Mood related</td>
<td>Treatment with medication/psychiatric assessment</td>
</tr>
<tr>
<td>Paranoia (fear of poisoning, giving inappropriately prepared foods)</td>
<td>Sealed food containers opened in front of patient</td>
</tr>
</tbody>
</table>

#### Finger Foods

Finger foods enable people to feed themselves and this helps to maintain their independence.

**Examples:**
- Toast fingers
- Small bread rolls with butter or ¼’s sandwiches
- Cereal bars/flapjacks
- Individual portion cake/fruit loaf/scone/biscuits/small chocolate bar/kit kat
- Crackers with butter / Cheese cubes/portion
- Crisps/quavers
- Banana/grapes/orange segment/dried fruit

#### Continual food refusal ethical considerations

An individual, who continually refuses to eat or drink, is at high risk of dehydration and malnutrition. The appropriateness of artificial support (e.g. nasogastric or PEG feeding) should be discussed by the MDT as part of the patient’s clinical review.
APPENDIX 7 – DECISION TREE FOR NG TUBE PLACEMENT IN ADULTS

Decision tree for nasogastric tube placement checks in ADULTS

- Estimate NEX measurement (Place exit port of tube at tip of nose. Extend tube to earlobe, and then to xiphisternum)
- Insert fully radio-opaque nasogastric tube for feeding (follow manufacturer’s instructions for insertion)
- Confirm and document secured NEX measurement
- Aspirate with a syringe using gentle suction

Aspirate obtained?

YES

Test aspirate on CE marked pH indicator paper for use on human gastric aspirate

pH between 1 and 6.5

YES

PROCEED TO FEED or USE TUBE
Record result in notes and subsequently on bedside documentation before each feed/medication/fush.

pH NOT between 1 and 5.5

NO

Aspirate obtained?

YES

Proceed to x-ray; ensure reason for x-ray documented on request form

NO

Competent clinician (with evidence of training) to document confirmation of nasogastric tube position in stomach

DO NOT FEED or USE TUBE
Consider re-siting tube or call for senior advice

A pH of between 1 and 5.5 is reliable confirmation that the tube is not in the lung, however it does not confirm gastric placement as there is a small chance the tube tip may sit in the oesophagus where it carries a higher risk of aspiration. If this is any concern, the patient should proceed to x-ray in order to confirm tube position.

Where pH readings fall between 6 and 6 it is recommended that a second competent person checks the reading or retests.

www.npsa.nhs.uk/alerts
### Out of Hours Enteral Feeding Regime for Adults

<table>
<thead>
<tr>
<th>Time</th>
<th>Nutrition Maintenance</th>
<th>Nutrition Maintenance</th>
<th>Nutrition Maintenance</th>
<th>Nutrition Maintenance</th>
</tr>
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<tbody>
<tr>
<td>One</td>
<td>Two</td>
<td>Three</td>
<td>Four</td>
<td></td>
</tr>
<tr>
<td>20mls</td>
<td>20mls</td>
<td>100mls</td>
<td>100mls</td>
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<td>20mls</td>
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<td>20mls</td>
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</table>

*Note: Feeding tube to be removed before 10am each morning.*

**Additional guidance:**
- Please maintain fluid at day three (to be reviewed) until medical assessment.
- Please ensure that a signed written request is sent to the dietitian (using current protocol).
- Additional fluid may be required. Please discuss with medical team for appropriate volume.

**Volume of Feeding (ml)**
- Day
- Feed per feed

**Additional Information:**
- Please refer to the Trusts’ Preferred Guidance for Multidisciplinary Support in Adults.
- For further information see the Trusts’ Preferred Guidance for Multidisciplinary Support in Adults.
- Please use with NG/PEG only.
- Ensure tube is in position and airway is clear.
- Feeding is not recommended before 6am.
- Check and record feeding intake.
- Check and record any back-up feeding.
- Check and record any back-up feeding.
- Check and record any back-up feeding.

---

**Out of Hours Enteral Feeding Regimen for Adults**

*Note: Feeding tube to be removed before 10am each morning.*

**NHFT Foundation Trust**

Doncaster and Bassetlaw Hospitals
ENTERAL FEED PRESCRIPTION

<table>
<thead>
<tr>
<th>Date</th>
<th>Feed</th>
<th>pH</th>
<th>Expiry Date</th>
<th>Batch Number</th>
<th>Time Started</th>
<th>Signature</th>
<th>Time Finished</th>
<th>Signature</th>
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</table>

High Risk of developing refeeding problems if one or more of the following are present:

- BMI less than 18kg/m²
- Unintentional weight loss of greater than 15% within the last 3-6 months
- Little or no nutritional intake for more than 10 days
- Low levels of potassium, phosphate or magnesium prior to feeding

OR

Two or more of the following:

- BMI less than 18.5kg/m²
- Unintentional weight loss greater than 10% within the last 3-6 months
- Little or no nutritional intake for more than 5 days
- A history of alcohol abuse or drugs including, chemotherapy, insulin, antacids and diuretics

For those patients identified at high risk of developing refeeding problems, the following should be considered:

- Providing immediately before and during the first 10 days of feeding: oral thiamine 200-300mg daily, Vitamin B Complex 1-2 tablets three times a day OR full dose daily intravenous vitamin B preparation and a balanced multivitamin trace element supplement once daily
- At risk patients should have baseline electrolytes, corrected calcium, phosphate and magnesium levels checked and corrected as required, and repeated on a daily basis

In extreme cases:

I.e.: BMI <14kg/m² and/or negligible intake for >15 day, use only 5kcal/kg of body weight per day, until full assessment from the dietitian

Other Considerations

- If the patient has diabetes, they will need their blood glucose levels monitoring regularly and may need an adjustment to their insulin or oral hypoglycaemic medication. Please discuss with medical team
- Patients receiving enteral feeding often will need their medication provided by this route. This becomes essential when patients are nil by mouth. If the medication can be given safely by the oral route then this should be continued. It is very important that special attention is given to medications that are given via this route as they may cause blockage of the tube and can interact with the feed, causing the absorption of the drug to be reduced. Refer to Trust policy - “Guidance on the administration of medicines to patients who have swallowing difficulties or are using enteral feeding tubes”.

NICE, 2006 “Nutrition Support for Adults”
## Troubleshooting guide for complications associated with enteral feeding

<table>
<thead>
<tr>
<th>Complication</th>
<th>Cause</th>
<th>Action – Prevention/Cure</th>
<th>Rationale</th>
</tr>
</thead>
</table>
| **Nasogastric tube malposition** | Incorrect insertion | • Remove tube and re-pass  
• Confirm placement before starting feed administration | To minimise the risk of aspiration |
| **Nasogastric tube displacement** | Accidental displacement or failure of fixation Tape | • Regular observation and replacement of fixation tape  
• Mark tube at nasal exit site | To minimise the risk of aspiration and accidental removal |
| **Patient at risk of discomfort/ nasal ulceration from nasogastric or nasojejunal tube** | Tube not securely fixed. Tube diameter >8FG | • Secure tube in position  
• Check nasal septum for redness  
• Change to other nostril.  
• Consider gastrostomy tube if nasogastric tube has been in situ for >6 weeks  
• Consider jejunostomy tube if nasojejunal tube has been in situ for >6 weeks  
• Ensure nasogastric tube is 8FG or less | To prevent discomfort |
| **Regurgitation or Pulmonary aspiration** | Gastric stasis, feeding whilst lying flat, tube displacement | • Check tube position.  
• Elevate head of bed to 45° during feeding  
• Consider prokinetic drugs (e.g. metoclopramide 10mg tds)  
• Consider post-pyloric feeding if all the above fail | To reduce the risk aspiration and respiratory infection |
| **Nausea, vomiting, bloating and delayed gastric emptying** | Patient’s clinical condition, Constipation, Medication, Infusion rate too rapid. Feed too cold | • Maintain patient at 45° angle during feeding  
• Check for and treat constipation  
• Consider anti-emetics  
• If patient receiving nasogastric feeding consider nasojejunal feeding if problem persists | To aid gastric emptying  
A common cause of nausea  
To limit nausea  
To bypass the stomach |
| **Diarrhoea:** Defined as at least 3 loose stools/day for at least 2 days or a volume of >500ml of stool for at least 2 days | - Check correct infusion rate and reduce rate of feed  
- Administer at room temperature | May help short term  
Cold feed may cause nausea |
| --- | --- | --- |
| Antibiotics, clinical condition, prokinetics, laxatives, drugs containing sorbitol, feed rate too rapid, infective cause; e.g. *Clostridium difficile*, *Escherichia coli* | - Stool specimen  
- Record bowel action  
- Review medications and clinical condition  
- Barrier nursing as per infection control policy  
- Consider additional fluids and electrolytes  
- Consider anti-diarrhoeal agents if cause is no infective | To check for infective cause  
To determine any changes from treatment  
To determine potential cause  
To limit cross-contamination  
Diarrhoea can contribute to dehydration and electrolyte imbalance  
To normalise bowel action |
| **Constipation** | - PR examination to check for impaction  
- If impacted, discuss with team re: administer glycerine suppository  
- Stop anti-diarrhoeal medication if currently prescribed  
- Ask dietitian to review feed and fluid  
- Ensure adequate fluid intake  
- Review current medication  
- Administer laxatives as prescribed  
- Encourage patient to mobilise | To assess for complication  
To relieve impaction  
To avoid constipation in the future  
May consider fibre feed if appropriate  
To prevent dehydration and subsequent constipation  
To see if any constipation causing medication can be altered  
To help induce bowel movement  
To help induce bowel movement |
<table>
<thead>
<tr>
<th>Oozing around gastrostomy site</th>
<th>Possible infection</th>
<th>• Check that fixation device is not too loose or too tight</th>
<th>A loose fixation device can cause the tube to become displaced. A tight fixation device can cause irritation Reduces risk of infection</th>
<th>To check if any organisms growing around site to enable suitable treatment to be given if infection present For an expert opinion on care of the site</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Keep gastrostomy site clean and dry as per Trust policy</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• Take swab of site if obvious signs of infection i.e. red and pus present</td>
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<tr>
<td></td>
<td></td>
<td>• Contact endoscopy</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Tube Blockage</th>
<th>Feed and/or medication</th>
<th>Ensure regular flushing of tube</th>
<th>See below for techniques for unblocking tubes</th>
</tr>
</thead>
</table>

**Preventing Tube Blockage**

Great care should be taken to prevent the feeding tube from blocking. All feeding tubes should be kept patent by flushing the tube every 4 hours or as indicated on the feed regime, even when not in use.

**Unblocking tubes**

- Ensure that there is no damage or kinks along the feeding system
- Check that the enteral feeding pump is working correctly
- Guide-wires should never be used to unblock the tube
- Sterile water is the only fluid, which should be used to try to unblock an enteral feeding tube. Other fluids such as fizzy drinks or fruit juice should be avoided as they can react with the feed and make the blockage worse
- If the blockage is visible within the feeding system, try “milking or massaging” the tube to try and relieve the blockage
- A plunging action, applying pressure to the tube with warm water is usually enough to remove a blockage
- Try flushing with a smaller syringe such as a 10 or 20ml syringe to exert more pressure

If there is resistance when flushing a gastrostomy tube this may be due to a condition known as “buried bumper syndrome” where the internal disk of the gastrostomy tube becomes buried and the stomach lining grows around it. If this is suspected seek advice from endoscopy.
APPENDIX 10 – ADMINISTERING DRUGS VIA ENTERAL FEEDING TUBES

ADMINISTERING DRUGS VIA ENTERAL FEEDING TUBES
A PRACTICAL GUIDE

UNLICENSED ROUTE
Crushing tablets, opening capsules, and administration via feeding tubes generally falls outside a drug’s product licence. In these circumstances the prescriber and practitioner accept liability for any adverse effects resulting from this administration.

TUBE TIP POSITION
• Check the drug is absorbed from the site of delivery.
• This can be a problem for jejunal tubes (some drugs have a reduced absorption).

WHICH TYPE OF WATER?
• Check local policy
• The type of water recommended depends on local practice and the exit site of the tube.

SYRINGE TYPE AND SIZE?
• 50ml oral, enteral or catheter tipped syringe should be used.
• It may be necessary to use a specially designed connector.
• A smaller syringe may produce too much pressure and split the tube (check manufacturer’s guidelines).
• Do not use syringes intended for intravenous use due to the risk of accidental parenteral administration.

INFECTION CONTROL AND SAFETY
• Wash hands and wear gloves.
• It is important that exposure to drug powder is kept to a minimum.

TUBE BLOCKAGE
• Inadequate flushing is the most common cause of tube blockage.
• Using the wrong formulation of medication may also cause tube blockage.
• If flushing with warm water does not unblock the tube, seek specialist advice, do not apply excessive force.

DISCHARGE PLANNING
• Ensure the agreed feed and drug regimen are practical in a community setting.
• Ensure all necessary information is given to the community pharmacist and GP.

STEP BY STEP GUIDE
• Can the patient still take their medication orally?
• Do not add medication directly to the feed
• Seek further advice for fluid restricted or paediatric patients as flushing volumes may need to be reduced
• Review all medication. Is it all ready necessary?
• Can an alternative route be used?

STOP THE FEED
Push the tube with at least 30ml of water

Do you need to allow a break before administering the medicines?

Assemble medication and equipment needed e.g. syringes, poles and monitors
Prepare each drug separately
Never mix drugs unless instructed by a pharmacist

SOLUTE TABLETS
Dissolve in 10-30ml of warm
Administer down tube

LIQUID
Stable, weak, viscous (thick) liquids – add with an equal amount of water immediately before administration
Administer down tube

TABLETS
Crush uncoated and sugar coated tablets using a pestle and mortar or suitable device
Administer down tube

CAPSULES
Open capsules and tip powder into medicine pot

Do not crush:
Enteral Coated (EC) medicines
Modified release [MR, SR, LA, XL] medicines
Hormone preparations
Cytotoxics
Always seek advice

Mix with 10-30ml of water Administer down tube

If more than one medicine is to be administered – flush between drugs with at least 10ml of water to ensure that the drug is flushed from the tube.

Push tube with at least 30ml of water following administration of last drug

Do you need to allow a break before restarting the feed?

RE-START THE FEED
For further advice contact your local hospital Medicines Information Department
Produced by the British Association for Parenteral and Enteral Nutrition
www.bapen.org.uk Registered Charity 1068957
The British Pharmacists’ Educational Trust Group
www.bpt.org.uk

SUPPORTED BY EDUCATIONAL GRANT FROM BOOTS LTD, PERSISTENT KABI LTD, MEAD-JESSEISS, NUTRITION CAMPUS, KRYSTAL CROTON, RESIDENT PHARMACISTS LTD, TYLE HEALTHCARE
### APPENDIX 11 – EQUALITY IMPACT ASSESSMENT - PART 1 INITIAL SCREENING

<table>
<thead>
<tr>
<th>Service/Function/Policy/Project/Strategy</th>
<th>CSU/Executive Directorate and Department</th>
<th>Assessor(s)</th>
<th>New or Existing Service or Policy?</th>
<th>Date of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAT/T 35 v.3 - A Practical Guide to Nutrition Support for Adults</td>
<td>Department of Nutrition and Dietetics</td>
<td>Martin Deakin Alison Zientek</td>
<td>Existing policy</td>
<td>July 2015</td>
</tr>
</tbody>
</table>

1) **Who is responsible for this policy?** Name of Care Group/Directorate: MSK & Frailty. Department of Nutrition and Dietetics

2) **Describe the purpose of the service / function / policy / project / strategy?** This policy gives practical guidance, procedures and resources required to provide first line management of nutritional care to all patients and is aimed at all staff involved in the nutritional care of patients. **Objectives:** To provide referenced background information and practical tools to improve current practice of nutritional care. To co-ordinate and improve the effectiveness of nutritional care at ward level. To enable an efficient discharge process for those patients requiring ongoing nutritional support in the community.

3) **Are there any associated objectives?** NICE Guidelines

4) **What factors contribute or detract from achieving intended outcomes?** - Target audience awareness, implementation and compliance.

5) **Does the policy have an impact in terms of age, disability, gender, gender reassignment, sexual orientation, marriage/civil partnership, maternity/pregnancy and religion/belief?** No

6) **Is there any scope for new measures which would promote equality?** [any actions to be taken] - No

7) **Are any of the following groups adversely affected by the policy?** No

<table>
<thead>
<tr>
<th>Protected Characteristics</th>
<th>Affected?</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Age</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>b) Disability</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>c) Gender</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>d) Gender Reassignment</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>e) Marriage/Civil Partnership</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>f) Maternity/Pregnancy</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>g) Race</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>h) Religion/Belief</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>i) Sexual Orientation</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

8) **Provide the Equality Rating of the service / function / policy / project / strategy – tick (✓) outcome box**

<table>
<thead>
<tr>
<th>Outcome 1 ✓</th>
<th>Outcome 2</th>
<th>Outcome 3</th>
<th>Outcome 4</th>
</tr>
</thead>
</table>

*If you have rated the policy as having an outcome of 2, 3 or 4, it is necessary to carry out a detailed assessment and complete a Detailed Equality Analysis form in Appendix 4*

**Date for next review:** October 2018

**Checked by:** Martin Deakin **Date:** July 2015