

POLICY/PROCEDURE INFORMATION (Policy no CS028)	
Subject	Home Enteral Feeding and Nasogastric Tube Policy and Procedures CS028 <i>(This policy is non-contractual and is subject to periodic review and will be amended according to service development needs).</i>
Applicable to	All staff working directly with patients will adhere to this policy
Target Audience	All Registered Nurses working for Nottinghamshire Hospice
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CQC Standard if applicable	Safe, Caring, Responsible
Links to other Hospice Policies	Infection Prevention and Control Policy CS001 Aseptic Non-Touch Technic CS024
Links to external policies	Home Enteral Feeding Policy and Procedures – Adults Nottingham University NHS Hospitals Trust, Nottingham CityCare Partnership, Nottinghamshire Healthcare NHS Foundation Trust
Summary	This policy has been developed for Nottinghamshire Hospice Registered Nurses (RNs) from the Policy cited above. It provides guidance on the use, re-use, cleaning and disposal of enteral feeding equipment and also on nasogastric tubes.
This policy replaces	N/A

IMPORTANT NOTICE

Staff should refer to the Hospice website or Policies and Procedures folder on the 'N' drive for the most up to date Policy. If the review date of this document has expired it is still valid for 3 months. After that staff should seek advice from their clinical lead or manager.

VERSION CONTROL			
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<p>1.</p>	<p>Introduction</p> <p>Enteral feeding as referred to in this policy is when an adult receives their nutrition and medication directly through an enteral feeding tube into the stomach or jejunum. The indications for enteral feeding are for those patients who have a functioning gut but are unable to take any adequate nutrition/fluid orally.</p> <p>It has been recognised that enteral feeding tubes and equipment can pose a risk to individuals from health care associated infection (HCAI).</p> <p>There was an identified risk from the administration of medicines, feeds and flushes via the incorrect route. The National Patient Safety Agency (NPSA) issued a patient safety alert (March 2007) which highlighted the risk from the administration of medicines, feeds and flushes via the incorrect route. One of the key requirements was that enteral feeding tubes and enteral syringes were of such a design, they could not physically be connected to IV syringes and catheters respectively.</p> <p>In order to reduce the risk of inadvertent intravenous administration of a medicine intended for administration via a feeding tube the International Organisation for Standardisation (ISO) has developed a new global standard for connectors used in enteral feeding devices. This is a new standard design of syringe-to-feeding-tube connector, known as ENFit which includes feeding tubes, syringes and feed/giving sets (1).</p> <p>For further advice on any of the issues raised in this policy contact the Dietetics Department or Nutricia Nurses at Nottingham University Hospitals NHS Trust on 0115 969 1169 X 74008.</p> <p>Out Of Hours advice line 0800 093 3672.</p>
<p>2.</p>	<p>Policy Statement</p> <p>This policy aims to provide guidance for Registered Nurses (RNs) involved in home enteral feeding on the use, re-use, cleaning and disposal of enteral feeding equipment. It aims to promote best practice by reducing the risks associated with 'health care associated infection' (HCAI) and to reduce the risk of wrong route</p>

	<p>administration associated with the use of enteral syringes for administration of medication, feeds and flushes via the enteral route.</p> <p>It also provides guidance on the use and care of naso gastric tubes.</p> <p>It raises awareness about best practice and acts as a resource tool for staff providing care.</p> <p>This policy sets out actions required to enable compliance with the following documents:</p> <ul style="list-style-type: none"> • National Institute for Clinical Excellence; Healthcare-associated infections: Prevention and Control in Primary and Community Care 2012 (2). • The Health and Social Care Act: 2008: Code of Practice for health and adult social care on the prevention of healthcare associated infections and related guidance (3). • The National Patient Safety Agency (NPSA) Patient Safety Alert; Promoting safer measurements and administration of liquid medicines via oral and other enteral routes, March 2007 (4).
<p>3.</p>	<p>Scope</p> <p>This Policy applies to all Hospice RNs who administer medication, feed or flush via the enteral and naso gastric routes. They must be authorised and trained to administer medication.</p>
<p>4.</p>	<p>Training</p> <p>The Community Home Enteral Feeding Dietitians will be responsible for coordinating and providing training for health care personnel who care for enterally fed patients/clients. This will take the form of:</p> <p>1) Initial and annual refresher training provided by Nutricia Nurses to Nottinghamshire Hospice RNs. Managers will be responsible for ensuring that healthcare personnel attend the training days. They will be responsible for maintaining an up-to-date record of all personnel who have received training.</p>

	<p>2) Additional training days are available for Nottinghamshire Hospice registered nurses at intervals throughout the year and facilitated by Nutricia Nurses at NUH.</p> <p>We provide an annual update/refresher.</p> <p>The Palliative Care Lead and Lead Nurses will be responsible for auditing the policy annually and provide evidence to the Quality and Safety Committee of the Audit. The audit tools are shown at Appendix 8.</p>
<p>5.</p>	<p>Risk Management</p> <p>It could be hazardous if staff failed to follow the practice outlined in this policy. Failure to follow this policy would lead to the patients' care being compromised and/or may lead to a wrong route drug error.</p> <p>If the prescription does not clearly specify the route as enteral, the drugs must not be administered until the prescriber has been contacted by the practitioner and confirmed the route.</p>
<p>6.</p>	<p>Essential Preparation for Enteral Feeding</p> <p>Effective hand washing and minimal handling of the feed, equipment and tube remains key to reducing the risk of cross infection (hand hygiene policy).</p> <p>Do not prepare/set up feed near to other foods (for example, raw meat).</p> <p>Gloves and apron must be worn and disposed of after each feeding episode (2).</p> <p>With the emergence of the novel pathogen COVID 19 it is important that any RN visiting to give support to individuals in relation to enteral feeding comply with the Hospice Personal Protective Equipment Policy for Infection Prevention and Control.</p> <p>It is important that this guidance is regularly checked to ensure there have been no amendments made and clinicians and care staff are following the latest up to date guidance.</p>

7. Feed (Appendices 1-5)

Minimal handling and an aseptic non-touch technique should be used to connect the feed container administration system and enteral feeding tube (2)

Unopened feed should be stored in a cool dry place out of direct sunlight and away from direct source of heat e.g., radiator. In winter months do not store feeds in outside buildings due to the risk of the feed freezing (2).

Opened feed or reconstituted feed should be stored in the fridge for up to twenty-four hours. It should be capped and labelled with the patient's name, date and time of opening / reconstitution (2).

Bolus feeds are generally given more easily from bottles or cartons. A 'ready to hang' feed is generally used for pump feeding. Only use reservoirs if recommended by the Dietitian (2)

Powdered or decanted feeds should be avoided whenever possible (2)

8. Water

Table 1 – Type of water to use.

Patient Group	Enteral Tube	Recommended water for flushes/mixing with tablets or capsules
Intra-gastric	Intra-gastric feeding tube	Freshly drawn drinking tap water
Immuno-compromised	Intra-gastric and Intra-jejunal feeding tube	Cooled boiled freshly drawn drinking tap water
Intra-jejunal	Intra-jejunal feeding tube	Cooled boiled freshly drawn drinking tap water

Store any unused water for twenty-four hours only. Store the water in a clean lidded container.

Wash the container daily in hot detergent water. Rinse and dry with a paper towel.

Do not contaminate the remaining water by dipping in used syringes and other equipment.

9. Equipment

Equipment will be provided directly to the patient by the Home Enteral Feeding Team based at City Hospital. The District Nurses or Patient can liaise with them for any additional supplies needed.

Only ENFit syringes will be used for the measurement and administration of medicines, feeds and flushes via the enteral routes and for the aspiration of gastric contents. Syringes compatible with intravenous systems i.e., luer lock and luer slip syringes must never be used for measuring and administering medications, feeds and flushes via the enteral route and aspiration of gastric contents (4)

Three-way taps must never be used on an enteral feeding system.

Only ENFit compliant enteral feeding equipment will be used for patients with enteral feeding tubes. Enteral feeding tubes, enteral feeding administration/giving sets and extension sets used must not contain any ports that can be connected to intravenous syringes nor have end connectors that can be connected to intravenous or other parenteral lines.

The only exception is the use of a 'luer slip syringe' for the inflation of a balloon inflation port on a Balloon replacement gastrostomy or Low-profile device tube (Button) (4).

During the transition period, tubes that are not available as ENFit must be converted to ENFit compatible by using an adaptor.

For patients who have an Intra-gastric tube, ENFit syringes must be single patient use only, one syringe can be used for 2-7 days. Any flushes given will be freshly drawn drinking tap water (2)

For patients who have an Intra-jejunal tube or are immuno-compromised, ENFit syringes must be sterile and single use only or decontaminated in accordance with the procedure documented in section 11. One syringe per 'patient's episode of care.' Any flushes given will be freshly drawn drinking tap water, boiled and cooled.

Medication drawn up into an oral syringe or an ENFit syringe or measured into a graduated medicine pot must be administered immediately (4)

Medication prescribed for patients with enteral feeding tubes must be rationalised by the prescriber, for example, GP, to the least number of administration episodes possible without compromising patient care.

The process of preparation and administration of medication via the enteral route must be separated in time from the process of preparation and administration of medication via the parenteral route i.e., intravenous, subcutaneous, intramuscular route.

Enteral feeding systems and syringes are colour coordinated purple and/or labelled 'Enteral', to indicate the enteral route by the manufacturers.

In a patients' own home the feed administration/giving set must be changed every twenty-four hours and it must be labelled stating the date and time it was set up. (2)

Reservoir bottles must be sterile and single use only. Reconstituted powdered feed and decanted feed can be stored for up to twenty-four hours in a fridge labelled with the patient's name and the date and time of preparation. Feed administered using a reservoir bottle should only hang for four hours. This may be extended to a maximum of twelve hours (for example, overnight) in response to patient or carer needs.

All used enteral feeding equipment must be disposed of in accordance with local waste guidance.

Extension Set

To prevent the risk of wrong route errors only ENFit compliant extension sets will be used.

To reduce the risk of infection only use an extension set if absolutely necessary.

If an extension set is required and it remains on the enteral feeding tube, it will then be treated as part of the tube.

Extension sets which are disconnected from the enteral feeding tube:

- Intra-gastric:
Change every 7-14 days or according to manufacturer's instructions (see section 10).
- Intra-jejunal / Immuno-compromised:
Replace with a new extension set each episode of care and decontaminate the one that has been removed using the procedure documented in section 11.

Feeding extension set (for low profile device)

To prevent the risk of wrong route errors only ENFit compliant feeding extension sets will be used.

Feeding extension sets will be disconnected from the enteral feeding tube after feeding / medication administration and / or flushing is complete. Use as below:

- Intra-gastric:
Change every 7-14 days or according to manufacturer's instructions (see section 10).
- Intra-jejunal/Immuno-compromised:
Clean and sterilise after each episode of care using a cold sterilising technique.
Change every 7 -14 days or according to manufacturer's instructions (see section 10/11).

Feed administration / giving set

To prevent the risk of wrong route errors only ENFit compliant administration/giving sets will be used.

Sterile single use for a maximum of twenty-four hours.

For powdered or decanted feeds use a new administration/giving set for each feeding episode.

The administration/giving set should be labelled with date and time.

In very rare situations the administration/giving set may be disconnected to allow for a

break in feeding. The administration/giving set remain attached to the feed at all times and the port disconnected from the feeding tube should be capped off.

If an enteral feed administration/giving set is in use at the time a feed, medication or flush is due then the medication or flush must be administered via the medicine administration port on the feed administration/giving set.

Never wash and reuse administration/giving sets (2).

Syringes

50 / 60ml ENFit syringes

Intra-gastric – single patient use only. One syringe for 2-7 days, clean after each use (see section 10).

Intra-jejunal / Immuno-compromised – sterile single use, one syringe per 'patient episode of care'. If feeding extension sets are being used and decontaminated using cold sterilising fluid, then ENFit syringes can be decontaminated in the same way and used for 2-7 days.

Only ENFit syringes must be used for the administration of medication, feeds or flushes via the enteral route.

Oral syringes (syringes less than 30ml) used for measuring medication

An oral syringe must be used:

- When the medication to be administered is **not** a multiple of 5ml i.e., 2.5ml or 7.5ml and accurate measurement is necessary.
- For the measurement of all liquid controlled drugs.

If an oral syringe is required for measuring or administering medication, the prescriber e.g., GP must identify this on the prescription so the pharmacy can supply a bottle that comes complete with an oral syringe.

Intra-gastric – single patient use only. One syringe for 2-7 days, clean after each use (see section 10).

Intra-jejunal / Immuno-compromised – sterile single use only, one syringe per ‘patient episode of care’.

All oral syringes used will have non-IV compatible tips, however there are exceptions, notably Ciclosporin liquid which is incompatible with standard oral syringes.

5-10ml luer slip syringes

These are intravenous and should **only** be used for the inflation/deflation of the balloon on a balloon and/or low-profile device (button) gastrostomy tube using the balloon inflation port. Sterile and single use only.

Graduated medicine pots

For the measuring of liquid medications in doses which are multiples of 5ml, i.e., 5ml or 10ml etc. Measure the liquid medication in the graduated medicine pot. The liquid medication should be drawn up into an appropriate 50/60ml enteral syringe to be administered. Clean the medication pot between uses. (See section 11).

Tablet Crusher / Pestle and Mortar

Use a tablet crusher or pestle and mortar when crushing tablets. This will ensure the correct dose is given. Avoid the use of two spoons as this may cause the loss of some of the tablet during the process of crushing. Clean the tablet crusher / pestle and mortar between uses. Only ceramic not wooden pestle and mortars are to be used (see section 11).

10. Cleaning Equipment

Extension set, enteral and oral syringes, graduated medicine pots, tablet crusher, pestle and mortar, jugs.

Do **not** use a bottle brush for cleaning.

Prior to cleaning:

- Extension sets / feeding extension sets - open clamp first
- Syringes - separate barrel and plunger

- Tablet crushers – unscrew and separate

Cleaning:

- Clean with hot water and detergent, rinse
- Dry excess water with a paper towel
- Allow to air dry.

All cleaned equipment should be stored in a clean lidded container. The container should be washed daily as above. In a patient’s own home, a dishwasher can be used to clean all the above equipment except extension sets and tablet crusher. Ensure that the equipment remains inverted throughout the cycle.

Pumps

Disconnect the pump from the mains electricity before cleaning.

Wipe the pump daily with hot detergent water or a detergent wipe. Do not immerse pump in water.

If a pump breaks down, clean the pump before it is returned for maintenance

11. Decontaminating Jejunostomy Extension Sets and Syringes

Patients that are being fed via jejunostomy tubes with extension sets will require the extension set and the syringe to be decontaminated using a disinfectant as well as a detergent. The manufacturers of the companies that provide the syringes and extension sets have all confirmed that this is the correct method for decontaminating the equipment and that steam sterilisation should not be used

1. Equipment required

- Jejunostomy extension set
- Enteral feeding syringes
- Milton sterilising fluid
- 5 litre Sterilising tank
- Hand hygiene facilities/alcohol hand gel
- Disposable paper towel

- Clean covered lidded container.

2. Inclusion and Exclusion Criteria

Criteria for Inclusion
<ul style="list-style-type: none"> • Patient with a Jejunostomy button that requires an extension set for feeding into the jejunostomy. • Only the following Jejunostomy extension sets and syringes can be sterilised with Milton: Mickey / Vygon / Nutricia and GB UK
Criteria for Exclusion
<ul style="list-style-type: none"> • An extension set not made by the above companies would need to be checked first with the Manufacturer prior to this SOP being used.
Cautions
As above

3. Procedure

Each patient will be assessed on an individual patient basis by the Home Enteral Feeding Team and will have been discharged into primary care with a specific agreed plan of care. The following information relates only to decontamination of the extension sets.

Step	Action	Rationale/ outcome	Risk management/ additional direction
1.	Ensure the patient / carer has been informed about the importance of hand hygiene and has been shown the correct hand hygiene technique.	To prevent infection.	Follow local hand hygiene guidance
2.	Clean extension set after each use with warm detergent water and rinse the tube with cooled boiled water following washing.	To ensure all feed residue is removed from inside the jejunostomy extension set.	
3.	Add 5 litres of cooled boiled water to the tank, Put 1 Milton tablet in the water if using water or 30mls of Milton liquid if using liquid	To ensure the correct dilution of sterilising fluid to water.	Follow Manufacturer's instructions for the use of the Milton Tank
4.	Place the extension tube into the	To ensure effective	Follow Manufacturer's

		solution in the sterilising tank and ensure the Jejunostomy tube and syringes are submerged in the sterilising fluid.	cold sterilisation of the extension tube.	instructions for the use of the Milton Tank
	5.	Once the tube has been in the sterilising tank for the required amount of time (15 mins) it will be ready to use. Decontaminate hands and remove from the tank, dry the outside with some clean paper towel and leave to air dry. Once dry place in a clean, dry, lidded container.	To ensure safe storage of the extension set.	
	6.	Decontaminate hands.	To reduce risk of transfer of transient micro-organisms on the care workers / carers / patients hands.	Follow local Hand Hygiene guidance
	7.	Ensure the sterilising fluid is replaced every 24 hours and the tank washed in warm soapy water and rinsed and dried with clean kitchen towel before replacing the solution.	To prevent build up of product and to ensure that the tank is regularly cleaned.	
12. Nasogastric Tubes				
The procedure for Nasogastric tube feeding and care is covered in Appendix 6 .				
13. Disposal of Equipment				
<p>Syringes, administration/giving sets, extension sets, connectors and feeding tubes - used enteral feeding equipment must be disposed of in accordance with local waste guidance.</p> <p>Glass feeding bottles – rinse and can be recycled.</p> <p>Plastic feeding bottles – rinse and can be recycled.</p> <p>Feed pack – in household waste.</p>				

14. Medication (Appendix 7, 8)

The prescriber e.g., GP must specify clearly on the prescription that the medication is for enteral administration. If the enteral route is not specified, the medication must not be administered until the prescriber has been contacted and route of administration has been confirmed. The prescriber must accept liability for any adverse effects resulting from this route of administration (6).

The prescriber e.g., GP will be responsible for liaising with the pharmacist to review the patient's prescription and discuss if alternative licensed liquid medicine formulations are available within the same class of drug or whether the drug prescribed could be given by an alternative route.

Alternative routes of administration include:

- Rectal route
- Transdermal route
- Buccal route
- Sublingual route
- Parenteral (intravenous, subcutaneous, intramuscular).

If a licensed preparation or route is not available or appropriate for the patient, then the pharmacist may recommend crushing or dispersing tablets, opening capsules or manufacturing a suspension for the individual patient.

The medication must only be administered to the patient by the member of staff who prepared it.

The medication must be discarded if:

- The administration process is interrupted at the point of administration.
- Medication has been left unattended in a graduated medicine pot or oral or enteral syringe.

Inform the prescriber e.g., GP, if this has happened so a decision can be made about the medication.

Preparation of oral drugs which are not commercially available as a liquid formulation

The alteration of medical formulations for administration via enteral tubes e.g., crushing tablets, opening capsules is usually outside the product license of the drug (5, 6) and may alter the handling of the drug. Some drugs are not suitable for crushing (Table 2). Drugs that are suitable for crushing or dissolving must be prescribed as such.

Table 2 – Drugs not suitable for crushing

Formulation / class of drug	Comments
Enteric coated tablets (EC)	If crushed, enteric coated tablets break up into small pieces that clump together when moistened and can clog the feeding tube (8)
Modified release (MR) / Sustained release (SR)	Crushing these drugs may result in abrupt high or low peaks of the drug which can be dangerous to the patient, especially if the drug has a narrow therapeutic range (5,6,7,8)
Buccal / sublingual	Designed to avoid the GI tract and first pass metabolism. The doses tend to be low and maybe insufficient if given via an enteral tube (6,7,8)
Chewable tablets	Designed to be partially absorbed in the mouth, not all the drug will be absorbed if they are crushed (6,7,8)
Cytotoxics and hormones	Potential risk to staff from aerosols from particles (6,7,8)

	<p>Type of water to mix with tablets / capsules / flush enteral tubes (see table 1)</p> <p>Volume of water to be used</p> <p>The volume of water used will depend on the individual patient and their individual fluid requirements and will be calculated accordingly by the Dietitian.</p> <p>Sufficient water flushes to flush the drug out of the delivery system will be required. Follow instructions from the Dietitian (Appendix 11) or see Bapen Guidelines (9). The volume of water used during flushing and administration of medicines should be recorded.</p> <p>If the volume of fluid is not a concern, a minimum of 10-15ml of water (see table 1) should be used to disperse each tablet and to mix in with the crushed tablet or powder from capsules (6).</p>
<p>15.</p>	<p>Equality Impact Assessment (EIA)</p> <p>An EIA has been completed concluding at the Screening stage.</p>
<p>16.</p>	<p>References</p> <ol style="list-style-type: none"> 1. Managing Risks during the transition period to new ISO connectors for medical devices Patient Safety Alert NHSE 2. National Institute for Clinical Excellence (2012) Healthcare-associated Infections: Prevention and Control in Primary and Community Care. 3. Department of Health (2008) The Health and Social Care Act: Code of practice for Health and Adult Social Care on the prevention and control of healthcare associated infections and Related Guidance. 4. National Patient Safety Agency (2007) Safer Practice Notice 19 Promoting Safer Measurement and Administration of Liquid Medicines via Oral and other Enteral Routes. 5. Administering medicines via enteral feeding tubes

	<ol style="list-style-type: none"> 6. Smyth J (Ed) (2006) The NEWT Guidelines – for the administration of medication to patients with Enteral Feeding Tubes or Swallowing Difficulties. First Edition, North East Wales NHS Trust. 7. White, R and Bradman, V (2006) Handbook of Drug Administration via Enteral Feeding Tubes, First Edition, Pharmaceutical Press. 8. Thomson, FC, Naysmith, MR and Lindsay A. Managing drug therapy in patients receiving enteral and parenteral nutrition. Hospital Pharmacist Vol 7 No 6; 155-164 9. Bapen (2003) Administering drugs via enteral feeding tubes – A Practical Guide.
<p>17. Further Reading</p>	<p>NEWT Guidelines for Administration of Medicines to patients with Enteral Feeding Tubes or Swallowing Difficulties (2010)</p> <p>Therapeutic options for patients unable to take solid oral dosage forms. UKMI Medicines Q&A 294.2 (January 2011)</p>

Procedure for Administering a Bolus Feed

Principle		Rationale
	<p>Equipment required</p> <p>Feeding regimen</p> <p>Appropriate feed e.g. bottle, can or cartons (remove any stored feed from the fridge 15 minutes prior to administration)</p> <p>50/60ml ENFit syringe</p> <p>Clean jug (to measure feed if required)</p> <p>Water for flushing (see table 1)</p> <p>Sanitising wipes</p> <p>Apron and gloves</p> <p>CE marked pH paper (if NG tube)</p> <p>Feeding extension set (if Low profile device – Button)</p>	<p>To facilitate the procedure.</p> <p>To allow the feed to reach room temperature.</p>
1.	<p>Check the feed against the prescribed regimen and patient details. Check the feed type, presentation, volume and expiry date. Check patient's identity.</p>	To prevent errors in administration.
2.	<p>Position patient to an angle of at least 30 degrees.</p>	To prevent aspiration.
3.	<p>Clean work surface with a sanitising wipe which includes detergent and disinfectant.</p>	To prevent cross infection.
4.	<p>Wash hands. Put on apron and gloves.</p>	To prevent cross infection.
5.	<p>Check the position of the tube by looking at the graduated markings on the tube or the length of the tube. Compare this with the information recorded.</p> <p>If NG tube – aspirate some gastric contents. The pH should be 5.0 or below.</p> <p>Only 50/60ml ENFit syringes must be used for aspirating enteral tubes.</p> <p>If there is any doubt that the tube is not in the correct position, do not use. Seek advice.</p>	<p>To prevent aspiration and feeding using a displaced tube.</p> <p>To confirm position</p>

6.	<p>Always check the enteral tube back to the patient.</p> <p>If Low profile device (Button) – see box 1.</p> <p>Flush feeding tube before and after feed, before and after medication and as per feeding regimen.</p> <p>Draw up, or measure out, 15 – 50ml of water (see feeding regimen to check amount and type of water flush required).</p> <p>Unscrew or open the feeding end of the feeding tube using a non-touch technique, taking care not to touch the end of the feeding tube. Attach the 50/60ml ENFit syringe to feeding port, open clamp.</p> <p>Flush the tube using either low pressure or free flow technique (see box 2).</p>	<p>To confirm the route of administration.</p> <p>To reduce risk of tube blockages.</p> <p>Use 30 – 50ml syringe as it is possible to rupture fine – bore tubes by using excessive force with a smaller syringe.</p> <p>To prevent cross infection.</p>
7.	Shake the feed. Measure the amount of feed required into a jug (if appropriate).	To distribute the contents throughout the solution. This is especially important if the feed contains fibre.
8.	Administer the feed using either low pressure or free flow technique.	To facilitate the procedure.
9.	Continue until the procedure is complete. Flush the feeding tube.	To prevent any leakage from the tube.
10.	Commence a fluid balance chart and document accurately input and output (if appropriate).	To monitor state of hydration.
11.	Monitor and record the frequency and type of stools.	To monitor bowel function.
12.	Inform the Dietitian of any problems involving the feed.	To maintain patient safety.
13.	<p>Document the procedure in the patient's record. Include:</p> <p>How position of feeding tube was confirmed.</p> <p>Date and time feed was commenced.</p>	To maintain accurate patient records.
14.	Wash all jugs after use. Wash or dispose of the used syringe as appropriate (see sections 12, 13, 14)	To ensure correct cleaning, storage and disposal.

Box 1: Low Profile Device (Buttons)

Select the correct feeding extension set: a bolus set for bolus feeding.

Prime the feeding extension set with water: Open the clamp and attach the syringe containing the water to the feeding extension set using a non-touch technique (see table 1), taking care not to touch the end of the syringe or extension set.

Gently and slowly insert the water by pushing the plunger on the syringe until the feeding extension set is full.

Close the clamp and remove the syringe.

Attach the feeding extension set to the button, reattach the syringe containing the water and flush the button.

Box 2: Bolus Feeding and Flushing the tube

To flush the tube using low pressure technique:
(Always use this technique with NG tubes).

Draw up the required water in 50/60ml Enfit syringe (See table 1). Open the port cap on the feeding tube ensuring the end of the port is not touched. Attach the syringe and gently and slowly depress the plunger to flush the tube.

To flush the tube using free – flow technique:
(Do not use this technique with NG tubes).

Remove the plunger from the 50/60ml ENFit syringe. Open the port or cap on the feeding tube, ensuring the end of the port is not touched, attach the syringe barrel and fill with the required amount of water (see table 1), open the clamp and allow the water to go through the tube.

Procedure for Pump Feeding with Commercially Prepared Feed

Principle		Rationale
	<p><u>Equipment required</u></p> <p>Pump and stand Feed administration/giving set Feeding regimen Appropriate feed i.e. pack 50/60ml ENFit syringe Water for flushing (see table 1) Sanitising wipes Apron and gloves CE marked pH paper (if NG tube) Feeding extension set (if Low profile device – Button)</p>	To facilitate the procedure.
1.	Check the feed against the prescribed regimen and patient details. Check the feed type, presentation, volume and expiry date. Check patient's identity.	To prevent errors in administration.
2.	Position patient to an angle of at least 30 degrees.	To prevent aspiration
3.	Wash hands. Put on apron and gloves.	To prevent the risk of cross infection
4.	<p>Check the position of the tube by looking at the graduated markings on the tube or length of the tube. Compare this with the information recorded.</p> <p>If NG tube – aspirate some gastric contents. The pH should be 5.0 or below.</p> <p>Only 50/60ml ENFit syringes must be used for aspirating enteral tubes.</p> <p>If there is any doubt that the tube is not in the correct position do not use. Seek advice.</p>	<p>To prevent aspiration and feeding using a displaced tube.</p> <p>To confirm position.</p>

5.	<p>Always check the enteral tube back to the patient.</p> <p>If Low profile device (Button) – see box 3.</p> <p>Flush feeding tube before and after feed and medication and as per feeding regimen.</p> <p>Draw up, or measure out, 15 – 50ml of water (see feeding regimen to check amount and type of water required).</p> <p>Unscrew or open the feeding end of the feeding tube using a non-touch technique, taking care not to touch the end of the feeding tube. Attach the 50/60ml ENFit syringe to feeding port, open clamp.</p> <p>Flush the tube using either low pressure or free flow technique (see box 4).</p>	<p>To confirm route of administration.</p> <p>To reduce the risk of tube blockages.</p> <p>Use 30 – 50ml syringe as it is possible to rupture fine – bore tubes by using excessive force with a smaller syringe</p> <p>To prevent cross infection</p>
6.	Shake pack of feed and stand on a flat surface.	To distribute the contents throughout the solution. This is especially important if the feed contains fibre.
7.	Check the expiry date on the administration / giving set. Open packaging and take out, holding approximately 5cm from each end.	To prevent cross infection
8.	Hold pack at base of spout and pierce foil. Screw administration/giving set onto spout taking care not to squeeze pack. Take care not to touch the cross shaped connector on the end of the administration/giving set, or the top of the pack spout.	To facilitate the procedure and reduce risk of leakage and of contamination
9.	Hang the pack on the stand. Open the pump door and place the administration / giving set in the pump and then close the door.	To facilitate the procedure.
10.	Turn the pump on. Then press the CLR button.	To power pump and clear previous settings.
11.	Check the rate of the feed required on the feeding regimen. Press the (+) or (-) buttons to set this rate in ml/hr. on the pump.	To ensure that the patient gets the prescribed regimen.
12.	Set the total volume to be infused (if required): Press the DOSE = VOL button and the pump will read CONT, then press the (+) to set the volume to be infused.	To ensure correct dose.
13.	Loosen the cap from the administration / giving set. Press the FILL SET button to prime the giving set.	To facilitate the procedure.

14.	Remove the cap from the administration / giving set. Connect the end of the giving set to the feeding tube and then press START/STOP button to commence feeding.	To commence feeding.
15.	Commence a fluid balance chart and document accurately input and output (if appropriate).	To monitor state of hydration.
16.	Monitor and record the frequency and type of stools.	To monitor bowel function.
17.	Inform the Dietitian of any problems involving the feed.	To maintain patient safety.
18.	Document the procedure in the patient's record. Include: How position of feeding tube was confirmed. Date and time feed was commenced.	To maintain accurate patient records.
19.	Wash or dispose of the used syringe as appropriate (see sections 13, 14, 15).	To ensure correct cleaning, storage and disposal

Box 3: Low Profile Device (Buttons)

Select the correct feeding extension set: a bolus set for bolus feeding.

Prime the feeding extension set with water: Open the clamp and attach the syringe containing the water to the feeding extension set using a non-touch technique (see table 1), taking care not to touch the end of the syringe or extension set.

Gently and slowly insert the water by pushing the plunger on the syringe until the feeding extension set is full.

Close the clamp and remove the syringe.

Attach the feeding extension set to the button, reattach the syringe containing the water and flush the button.

Box 4: Bolus Feeding and Flushing the tube

To flush the tube using low pressure technique:
(Always use this technique with NG tubes).

Draw up the required water in 50/60ml ENFit syringe (see table 1). Open the port cap on the feeding tube ensuring the end of the port is not touched. Attach the syringe and gently and slowly depress the plunger to flush the tube.

To flush the tube using free – flow technique:
(Do not use this technique with NG tubes).

Remove the plunger from the 50/60ml ENFit syringe. Open the port or cap on the feeding tube, ensuring the end of the port is not touched, attach the syringe barrel and fill with the required amount of water (see table 1), open the clamp and allow the water to go through the tube.

Procedure for the preparation and reconstitution of powdered feed

Preparation and reconstitution of powdered feed

(must take place in a kitchen area away from any food).

Principle		Rationale
	Equipment required Feeding regimen Appropriate feed Sterile reservoir bottles and labels Cooled boiled drinking tap water Jug Whisk / fork Sanitising wipe Paper towel Apron and gloves	To facilitate the procedure.
1.	Check the feed against the prescribed regimen and patient details. Check the feed type, expiry date and calculated amount of feed and water needed for a 24-hour period.	To prevent errors in administration.
2.	Wash hands and clean the whisk / fork and jug in hot soapy water and rinse. Dry with a paper towel.	To prevent cross infection
3.	Clean the surface with a sanitising wipe which includes detergent and disinfectant.	To prevent cross infection
4.	Wash hands and put on apron and gloves.	To prevent cross infection
5.	Add the required amount of powdered feed to jug. Add small amount of cooled boiled drinking tap water. Stir with fork until a smooth paste is obtained. Continue stirring whilst adding the rest of the prescribed amount of water or add powder and water as per manufacturer's instructions.	To facilitate the procedure.
6.	Remove the lid from the reservoir bottle (Do not touch the inside of the lid and reservoir). Pour the feed into the reservoir and replace the lid firmly. Repeat this procedure until you have filled enough reservoir bottles for 24 hours. Discard reservoir bottles after use and discard unused feed after 24 hours.	To facilitate the procedure.
7.	Record the: <ul style="list-style-type: none"> • Date and time • Feed type • Volume • Feed expiry time on labels Write the patient's name on the labels (if appropriate) and fix to all the reservoir bottles.	For monitoring purposes.
8.	Store the additional filled reservoir bottles in the fridge.	To minimise the risk of cross infection

Procedure for Decanting Feed into a Reservoir Bottle

Principle	Rationale
Equipment required Feeding regimen Appropriate feed Feeding reservoir bottle and label Sanitising wipe Paper towel Apron and gloves	To facilitate the procedure.
1. Check the feed against the prescribed regimen and patient details. Check the feed type and expiry date.	To prevent errors in administration.
2. Clean the work surface with a sanitising wipe which includes detergent and disinfectant.	To prevent cross infection
3. Wash hands and put on apron and gloves.	To prevent cross infection
4. Remove the lid from the reservoir bottle (Do not touch the inside of the lid and reservoir). Pour the prescribed volume of feed into the reservoir and replace the lid firmly. Do not reuse reservoirs.	To facilitate the procedure.
5. Record: Date and time Feed type Volume Feed expiry time on label Write patient's name on the label (if appropriate) and fix to the reservoir bottle.	For monitoring purposes.

Procedure for the administration of feed using a reservoir bottle

Principle	Rationale
<p>Equipment Required</p> <p>Pump and stand Feed administration / giving set Feeding regimen Filled reservoir bottle (Remove from fridge 15 minutes prior to administration) 50/60ml ENFit syringe Water for flushing (see table 1) Sanitising wipe Apron and gloves CE marked pH paper (if NG tube) Feeding extension set (if Low profile device – Button)</p>	<p>To facilitate the procedure.</p> <p>To allow the feed to reach room temperature.</p>
<p>1. Check the feed against the prescribed regimen and patient details. Check the feed type, presentation, volume and expiry date. Check patient's identity.</p>	<p>To prevent errors in administration.</p>
<p>2. Position patient to an angle of at least 30 degrees.</p>	<p>To prevent aspiration</p>
<p>3. Wash hands. Put on apron and gloves.</p>	<p>To prevent cross infection.</p>
<p>4. Check the position of the tube by looking at the graduated markings on the tube or the length of the tube. Compare this with the information recorded.</p> <p>If NG tube – aspirate some gastric contents. The pH should be 5.0 or below</p> <p>Only 50/60ml ENFit syringes must be used for aspirating enteral tubes.</p>	<p>To prevent aspiration and feeding using a displaced tube.</p> <p>To confirm position. If there is any doubt that the tube is not in the correct position do not use. Seek advice.</p>
<p>5. Always check the enteral tube back to the patient.</p> <p>If Low profile device – (Button) – see box 5.</p> <p>Flush feeding tube before and after feed and medication as per feeding regimen.</p> <p>Draw up, or measure out, 15-50ml of water (see feeding regimen to check amount and type of water required).</p> <p>Unscrew or open the feeding end of the feeding tube using a non-touch technique and taking care not to touch the end of the tube. Attach the 50/60ml ENFit syringe to the feeding port, open clamp.</p> <p>Flush the tube using either low pressure or free flow technique (see box 6).</p>	<p>To confirm the route of administration.</p> <p>To reduce the risk of tube blockages.</p> <p>Use 30 – 50ml syringe as it is possible to rupture fine-bore tubes by using excessive force with a smaller syringe</p> <p>To prevent cross infection</p>

6.	Shake reservoir bottle.	To distribute the contents throughout the solution.
7.	Check the expiry date on the administration/giving set. Open packaging and take out, holding approximately 5cm from each end. Use a new administration/giving set at the beginning of each feeding episode.	To prevent cross infection
8.	Remove cap on reservoir bottle and screw on administration/ giving set taking care not to touch the sterile end of the reservoir or administration/ giving set.	To facilitate the procedure and reduce risk of leakage and of contamination
9.	Hang the reservoir bottle on the drip stand. Ideally reservoirs of reconstituted or decanted feed should only hang for four hours. This may be extended to a maximum of twelve hours (for example, overnight) in response to client or carer needs.	To reduce the risk of infection
10.	Open the pump door and place the administration/ giving set on the pump then close the door.	To facilitate the procedure
11.	Turn the pump on. Then press the CLR button.	To power pump and clear previous settings.
12.	Check the rate of feed required on the feeding regimen. Press the (+) or (-) buttons to set this rate, in ml/hr. on the pump.	To ensure that the patient gets the prescribed regimen.
13.	Set the total volume to be infused (if required): Press the DOSE=VOL button and the pump will read CONT, then press the (+) to set volume to be infused.	To ensure the correct dose.
14.	Loosen the cap from the administration / giving set. Press the FILL SET button to prime the administration / giving set.	To facilitate the procedure.
15.	Remove the cap from the administration / giving set. Connect the end of the administration / giving set to the feeding tube and then press the START/STOP button to commence feeding.	To commence feeding.
16.	Commence a fluid balance chart and document accurately input and output (if appropriate).	To monitor state of hydration.
17.	Monitor and record the frequency and type of stool.	To monitor bowel function.
18.	Inform the Dietitian of any problems involving the feed.	To maintain patient safety.
19.	Document the procedure in the patient's record (if appropriate). Include: <ul style="list-style-type: none"> • How position of feeding tube was confirmed • Date and time feed was commenced 	To keep accurate records.
20.	Wash or dispose of the used syringe as appropriate (see sections 13, 14, 15)	To ensure correct cleaning, storage and disposal

Box 5: Low Profile Device (Buttons)

Select the correct feeding extension set: a bolus set for bolus feeding.

Prime the feeding extension set with water: Open the clamp and attach the syringe containing the water to the feeding extension set using a non-touch technique (see table 1), taking care not to touch the end of the syringe or extension set.

Gently and slowly insert the water by pushing the plunger on the syringe until the feeding extension set is full.

Close the clamp and remove the syringe.

Attach the feeding extension set to the button, reattach the syringe containing the water and flush the button.

Box 6: Bolus Feeding and Flushing the tube

To flush the tube using low pressure technique:
(Always use this technique with NG tubes).

Draw up the required water in 50/60ml ENFit syringe (see table 1). Open the port cap on the feeding tube ensuring the end of the port is not touched. Attach the syringe and gently and slowly depress the plunger to flush the tube.

To flush the tube using free – flow technique:
(Do not use this technique with NG tubes).

Remove the plunger from the 50/60ml ENFit syringe. Open the port or cap on the feeding tube, ensuring the end of the port is not touched, attach the syringe barrel and fill with the required amount of water (see table 1), open the clamp and allow the water to go through the tube.

Procedure for Nasogastric Feeding Tubes

Nasogastric (NG) tubes can be easily displaced. If you are concerned the tube is not in the stomach and/or the pH strip indicates a reading of more than 5.5, do not put anything down the tube. In this situation, please read the *troubleshooting* section of this information or seek advice from the District Nurse.

Confirming the correct position of the NG tube

It is important to check the NG tube is in the correct position to reduce the risk of feed or water from entering the patients' lungs. This is because it may cause a chest infection or serious harm. You always need to check the position of the NG tube **before you do any of the below:**

- feeding via the tube
- giving medications down the tube
- water flush.

How to check the tube's position

Before you begin, think about whether there is a reason to suspect the tube has moved out of the stomach.

- Check the measurement from the patient's nose to the tip of the tube is the same as the correct position during previous checks.
- Check aspirate pH using pH paper.
 - Wash your hands before and after checking the feeding tube.
 - Remove the end cap of the tube and attach a 60ml syringe to the end of the tube.
 - Pull back carefully on the plunger until a small amount of fluid – also known as aspirate – appears in the syringe (approximately 1 to 2ml).
 - Remove the syringe and replace the end cap – some people find it more convenient to kink the end of the tube before doing this.
 - Place a little of the fluid onto the pH indicator paper.
 - Check the colour change of the paper against the chart on the container. The pH value of the **aspirate must be 0 to 5.5 to proceed.**
- Are there any unexplained breathing problems?

- Has there been any retching, which might have caused the tube to move?
- Has there been any vomiting, which might have caused the tube to move?
- Has the tape which secures the tube come loose?
- Is there any visible coiling of the tube at the back of the throat?

If you cannot pull back aspirate from the NG tube

Try one or more of the following:

- Change the patient's position, perhaps lying down on their left side.
- Inject 10 to 20ml of air into the tube using a 60ml syringe.
- Wait 15 to 30 minutes before trying again.
- If you cannot confirm the tube is in the correct position, do not give any water or feed. Contact either their community nurse, or the enteral feed company nurse.

Flushing the NG tube

If the NG tube is not being used for feeding, make sure you flush the tube at least once a day with fresh tap water to reduce the risk of the tube blocking. The dietitian should have advised on the amount of water required.

Method for flushing the NG tube

Please only do this after you have confirmed the tube is in the correct position.

- Wash your hands well.
- Place all the equipment you require on a clean surface:
 - 60ml syringe
 - measured water in a jug or cup
 - disposable gloves.
- Make sure the position of the feeding tube has not moved by:
 - checking the skin-level centimetre marking
 - aspirating fluid from the tube and checking pH is 5.5 or below
 - checking for anything unusual about your tube.

There are then **two options to flush** the tube.

Option one

- Remove the cap from the end of the NG tube.

- Remove the plunger from the syringe and attach it to your feeding tube.
- Use the syringe as a funnel to slowly pour the correct amount of water into the feeding tube, keeping the syringe higher than the patient.
- Remove the syringe and recap the tube.

Option two

- Draw up the required amount of water into the syringe.
- Remove the cap from the end of the NG tube. Attach the syringe to the NG tube and **slowly** press down the plunger in the syringe to flush the water into the tube.
- Remove the syringe and recap the NG tube.

When flushing the tube, you may wish to try to avoid emptying the tube completely by kinking the end of the tube before removing the syringe or as the last drops of water are entering the tube. This can reduce the risk of air entering the stomach which can make the patient feel uncomfortable and bloated.

Try to get the patient to remain upright for at least 30 minutes after a feed or flush to help prevent reflux and regurgitation.

The syringes can be washed according to instructions or can be disposed in normal household waste.

Feeding via an NG tube

When feeding, please sit or lay the patient in an upright or semi-upright position – at a 30 to 45-degree angle. Always flush the tube with water before and after giving any feed or medication. This reduces the risk of the tube blocking. The dietitian should have indicated how much water and feed to use as part of the feeding plan.

Caring for the tube and skin

- Wash your hands before and after caring for the tube.
- Replace the tape daily.
- When changing the tape, clean the skin with the patient's normal method and dry very well.

- Try to change the position of the tape to reduce the risk of soreness.
- Avoid using creams and powders as they can make the tube slip.
- Patients may bathe or swim with an NG tube but avoid the tape coming off through prolonged soaking. If necessary, dry the face well afterwards and change the tape.

If your skin becomes sore or irritated, contact the community nurse or GP for advice.

Troubleshooting tips

What if the tube becomes blocked?

The most common causes for feeding tubes to become blocked are feed or medications.

The following tips can help clear a feeding tube which has become blocked with feed or medications:

Milking the tube

Use your thumb and forefinger to squeeze and roll along the length of the tube until the blockage is cleared.

Push and pull technique

Using a 60ml syringe draw up some cooled-boiled warm water. Connect to the tube. Push and pull on the syringe (like using a bicycle pump) to try to dislodge the blockage. This may take 20 to 30 minutes before the tube becomes unblocked. Never force the syringe as this may damage the tube.

Soda water

If the blockage persists, try flushing the tube with soda water and leave it for 20 to 30 minutes to help dissolve the blockage. Then using the push pull technique, flush the tube with cooled-boiled warm water. Never flush with sugary drinks such as cola or lemonade as these may cause the tube to break down or the blockage to harden and make it worse.

If you think the tube is blocked by medication, check your technique and process for administering medications or ask the enteral feed nurse to check with you. If it's a persistent problem and you are following the correct procedures for administering medicines, the GP might be able to review the medication to see if an alternative is available.

What if I still can't get any aspirate to check the position of the tube before feeding?

It remains vital that you obtain aspirate from the nasogastric tube and you test it using pH paper and you obtain a pH of 5.5 or below before you commence feeding via the tube. If you still cannot get any aspirate from the tube you might be able to:

- change the patients position again, for example get them to lie on their side and try aspirating
- wait 15 to 30 minutes and try again
- move the tube 2cm, and try aspirating again (if you are trained to do this)
- try to get them to drink something, if they are able to drink safely and are not nil by mouth

If you are still unable to obtain aspirate, contact the district nurse or the GP, to discuss a way forward.

What if I can get aspirate from the tube but the pH is six or above?

It is possible for the pH of the patient's stomach to be higher than 5.5. This can be caused by some medications, or the presence of feed or food. It can feel very frustrating when the patient wants to feed but the aspirate pH is six or above.

However, it remains vital that you obtain aspirate from the nasogastric tube, you test it using pH paper and you obtain a pH of 5.5 or below before you commence feeding via the tube.

What do I do if the nasogastric tube comes out?

If you are feeding the patient when the tube comes out it is possible that the tube has dislodged and gradually worked its way out and therefore you may have inadvertently got feed in the windpipe or lungs. If the patient feels unwell or are concerned, you must obtain medical advice.

If the tube has come out during the night and you are **not** concerned you have inadvertently got feed into the patient's windpipe, it is possible to leave the tube replacement until the morning.

Procedure for the Preparation of Medication

Dispersing tablets in water

- Place the tablet in a graduated medicine pot.
- Add water (see table 1) and allow tablet to disperse.
- Draw up the solution into a 50/60ml ENFit syringe.
- Administer the solution to the patient.
- Rinse the graduated medicine pot with more water and administer the rinsings.
- The graduated medicine pot must be cleaned thoroughly (see section 12).

Crushing tablets

- A ceramic pestle and mortar or tablet crusher must be used.
- Place the required tablet in the mortar / tablet crusher and crush to a powder.
- Mix the powder with an appropriate volume and type of water (see table 1).
- Draw up the solution into a 50/60ml ENFit syringe.
- Administer the solution to the patient.
- Rinse the mortar / tablet crusher with a little more water, draw up and administer the rinsings.
- The pestle and mortar / tablet crusher must be cleaned thoroughly (see section 12).

Opening Capsules

- Open the capsule and tip the powder into a graduated medicine pot.
- Mix the powder with an appropriate volume and type of water (see table 1).
- Draw up the solution into a 50/60ml ENFit syringe.
- Administer the solution to the patient.
- Rinse the graduated medicine pot with a little more water, draw up and administer the rinsings.
- The graduated medicine pot must be cleaned thoroughly (see section 12).

Preparation of Injections for Enteral Administration

Vancomycin

- Vancomycin injection is licensed for administration via the oral route for the treatment of *Clostridium difficile*.
- The injection must be reconstituted following the manufacturer's information.
- The required dose must be withdrawn from the vial using an intravenous syringe and needle.
- The required dose must be immediately ejected from the intravenous syringe into a medicine pot and diluted with an appropriate volume and type of water (see table 1).
- The solution must be drawn up into a 50/60ml ENFit syringe.
- Administer the solution.

Preparation of oral liquid morphine doses from Oramorph® Unit Dose vials

- A needle and intravenous syringe **must not** be used.
- For doses that are multiples of 5ml, the contents of the Oramorph® unit dose vial must be emptied into a graduated medicine pot and the solution must be drawn up into a 50/60ml ENFit syringe and administered to the patient.
- For doses that are **not multiples of 5ml**, the contents of the Oramorph® unit dose vial must be emptied into a graduated medicine pot and an oral syringe must be used to measure the required dose. The dose must then be transferred into the barrel of a 50/60ml ENFit syringe prior to administration via the enteral route.
- The remaining liquid must be disposed of immediately according to local policy.

Procedure for Administering Medication via an Enteral Tube

	Principle	Rationale
	<p>Equipment required</p> <p>Prescription chart 50/60ml ENFit syringe Graduated medicine pot and / or oral syringe Medications Water for flushing / mixing (see table 1) Sanitising wipes Apron and gloves CE marked pH paper (if NG tube) Tablet crusher / pestle and mortar (if required) Feeding extension set (if Low profile device – Button)</p>	To facilitate the procedure.
1.	<p>Check the medication against the prescription chart and patient details.</p> <p>Check medication expiry date and route of administration.</p> <p>Check patient's identity.</p>	To prevent errors in administration
2.	Position patient to an angle of at least 30 degrees.	To prevent aspiration
3.	Wash hands. Put on apron and gloves.	To prevent cross infection
4.	<p>Check the position of the tube by looking at the graduated markings on the tube or the length of the tube. Compare this with the information recorded.</p> <p>If NG tube – aspirate some gastric contents. The pH should be 5.0 or below.</p> <p>Only 50/60ml ENFit syringes must be used for aspirating enteral tubes.</p> <p>If there is any doubt that the tube is not in the correct position, do not use. Seek advice.</p>	<p>To prevent aspiration using a displaced tube.</p> <p>To confirm position</p>

5.	<p>Always check the enteral tube back to the patient.</p> <p>Stop feed if the feed is in progress by closing the roller clamp. Put pump on hold.</p> <p>If Low profile device - (Button) – see box 7. Draw up, or measure out, 15 - 50ml of water (see feeding regimen to check amount and type of water required).</p> <p>Unscrew or open the feeding end of the feeding tube or medication port of administration / giving set (if feed was in progress) using a non-touch technique, taking care not to touch the end of the administration / giving set. Attach the 50/60ml enteral syringe to feeding port / medication port, open clamp and slowly flush the tube.</p>	<p>To confirm the route of administration.</p> <p>Use 30 – 50ml syringe as it is possible to rupture fine-bores by using excessive force with a smaller syringe</p> <p>To prevent cross infection</p> <p>To reduce the risk of tube blockages.</p>
6.	Prepare first dose of medication required.	To facilitate the procedure.
7.	<p>If the dose is to be drawn up from a graduated medicine pot or mortar, draw up contents using a 50/60ml ENFit syringe. Attach the enteral syringe to the feeding port / medication port and administer the medication using a low-pressure technique (see box 8)</p> <p style="text-align: center;">OR</p> <p>If the dose has been measured using an oral syringe, the medication must be transferred into the 50/60ml ENFit syringe before it can be administered. Remove the plunger from the 50/60ml enteral syringe. Attach the enteral syringe to the feeding port / medication port and administer the medication using a free flow technique (see box 8).</p>	To administer the medication safely.
8.	Flush the tube with at least 10ml of water in between each medication.	To prevent tube blockage.
9.	Sign the medication chart to record administration of the drug immediately after it has been given.	For accurate documentation and patient safety.
10.	Prepare next dose of medication required and repeat steps 6 – 8. The same enteral syringe can be used throughout the process.	To facilitate the procedure.
11.	Flush the tube with at least 30ml of water after the last medication has been administered.	To prevent tube blockage.
12.	Restart the feed if it had been stopped.	To feed the patient.
13.	Wash and / or dispose of equipment as appropriate (see sections 13, 14, 15).	To ensure correct cleaning, storage and disposal

Box 7: Low Profile Device (Buttons)

Select the correct feeding extension set: a bolus set for bolus feeding.

Prime the feeding extension set with water: Open the clamp and attach the syringe containing the water to the feeding extension set using a non-touch technique (see table 1), taking care not to touch the end of the syringe or extension set.

Gently and slowly insert the water by pushing the plunger on the syringe until the feeding extension set is full.

Close the clamp and remove the syringe.

Attach the feeding extension set to the button, reattach the syringe containing the water and flush the button.

Box 8: Flushing the tube

To flush the tube using low pressure technique:

(Always use this technique with NG tubes).

Draw up the required water in 50/60ml ENFit syringe (see table 1). Open the port cap on the feeding tube ensuring the end of the port is not touched. Attach the syringe and gently and slowly depress the plunger to flush the tube.

To flush the tube using free – flow technique:

(Do not use this technique with NG tubes).

Remove the plunger from the 50/60ml ENFit syringe. Open the port or cap on the feeding tube, ensuring the end of the port is not touched, attach the syringe barrel and fill with the required amount of water (see table 1), open the clamp and allow the water to go through the tube.



Audit 1

Administration of feed / water

To be completed annually with all staff undertaking feeds.

Name of assessor _____

Name of Team _____

Date _____

Procedure observed: ✓ = yes x = no NA = not applicable

Care Standard	Carer				
	1	2	3	4	5
Preparation for feeding <ul style="list-style-type: none"> - Evidence of training - Demonstrates effective handwashing - Wears gloves and apron - Giving set labelled correctly - Tube position checked correctly - Appropriate type of water - Appropriate type of feed - Feed stored correctly - Feed checked against regimen - Appropriate syringe - Patient positioned correctly 					
Administration of feed using a pump <ul style="list-style-type: none"> - Primes giving set - Connects giving set to feeding tube using non touch technique - Sets correct rate of infusion - Sets correct dose - Records accurately 					
Administration of a bolus feed / water flush <ul style="list-style-type: none"> - Correct amount of water given - Correct amount of feed given - Low pressure / free flow technique used - Records accurately 					
Cleaning Equipment <ul style="list-style-type: none"> - Identifies the appropriate equipment for cleaning - Demonstrates the correct procedure for cleaning - Equipment stored and labelled appropriately 					
Disposal of Equipment <ul style="list-style-type: none"> - Identifies equipment to be disposed of - Demonstrates correct procedure for disposal of equipment 					



Audit 2

Administration of medication

Name of assessor _____

Name of Team _____

Date _____

Procedure observed: ✓ = yes x = no NA = not applicable

Care Standard	Carer				
	1	2	3	4	5
Route of administration clearly identified as 'enteral' on prescription chart					
Medication administered by the carer who prepared it					
Preparation of medication <ul style="list-style-type: none"> - Separate in time from preparation of medications via parenteral route - Evidence of training - Medication checked against prescription chart - Demonstrates effective hand washing - Wears gloves and apron - Tube position checked correctly - Appropriate type of water - Patient position checked correctly - Appropriate equipment used to prepare medication e.g. tablet crusher - Appropriate equipment used to measure medication e.g. graduated medicine pot, oral syringe 					
Administration and preparation of medication <ul style="list-style-type: none"> - Identity of the patient checked - Tube flushed with water before, after and in between each medication - Shows correct procedure for preparing and administering medication - Administered individually using a 50ml enteral syringe 					
Cleaning Equipment <ul style="list-style-type: none"> - Identifies the appropriate equipment for cleaning - Demonstrates the correct procedure for cleaning - Equipment stored and labelled appropriately 					
Disposal of Equipment <ul style="list-style-type: none"> - Identifies equipment to be disposed of - Demonstrates correct procedure for disposal of equipment 					

Definitions / Glossary

Buccal Route

Medication administered by placing between the cheek and the gum or by direct application onto the mucous membrane lining of the inner cheek.

ENFit

The new global standard for the connection port on all enteral feeding tubes and equipment

Enteral Administration

Method of delivery where feed, flushes, liquid medications are administered directly into the gastrointestinal tract.

Enteral Feeding

Enteral feeding also called enteral nutrition or artificial feeding is when a patient is fed through a tube placed either intra-gastric or intra-jejunal. Feeding through an enteral feeding tube will provide artificial nutritional support to those patients with a functional gastrointestinal tract. An enteral feeding tube can provide nutrition to patients who cannot meet their nutritional requirements orally. Enteral feeding is simple and a safe way to provide nutrition to patients with short or long-term feeding problems.

Enteral Feeding Tubes

Intra-gastric

- Naso-gastric tube (NG)
- Percutaneous Endoscopic Gastrostomy (PEG)
- Percutaneous Gastrostomy (PG)
- Radiologically Introduced Gastrostomy (RIG)
- Balloon Gastrostomy
- Low Profile Device (Button)

Intra-jejunal

- Naso-jejunal (NJ)
- Percutaneous Endoscopic Jejunostomy (PEJ)
- Jejunostomy (endoscopically, radiologically or surgically placed)
- Trans gastric Jejunostomy
- PEG with jejunal extension (PEGJ)
- Low Profile Device (Button) – placed direct into jejunum

ENFit Syringe

A 50/60ml syringe; colour coordinated purple and/or labelled 'ENTERAL' used to administer medication, feed or flushes via an enteral feeding tube or enteral feeding administration set.

Extension Sets

Tube used to extend the length of the feeding tube, e.g. Y extension set to attach to a balloon gastrostomy, extension set attached to a RIG tube.

Feed Administration / Giving Set

Tube used to attach the feed pack to the feeding tube and to administer feed/water/medication.

Feeding Extension Set

Tube used to connect a Low-profile device (button) to either an ENFit syringe or feed administration/giving set.

Flush

Freshly drawn drinking tap water or freshly drawn drinking tap water boiled and cooled, administered via an enteral syringe into an enteral feeding tube or enteral feeding administration/giving set.

Graduated Medicine Pot

Container with graduated markings used for measuring liquid medication.

Immuno-compromised (Immuno-suppressed)

An individual can be deemed immuno-suppressed for a number of reasons:

- Receiving chemo-radiation
- Receiving chemotherapy
- Receiving high dose steroids
- Conditions that lower the immune response e.g., HIV/AIDS / Autoimmune diseases
- Drugs that affect the immune response e.g., immunosuppressive drugs post-transplant

This list is not exhaustive and not all patients in these categories will become immuno-suppressed. Therefore, each individual may need to be assessed for individual risk factors that may lower their immunity. If there is any doubt as to whether the individual is immuno-suppressed this should be discussed with the multi-professional team caring for the patient. If the individual is identified as immuno-suppressed or as potentially vulnerable to lowered immune responses, the guidance indicated should be followed.

Luer Slip Syringes

Syringe with luer slip tip

Oral Liquid Medicine

For the purpose of this policy an oral liquid medicine is one, which is intended to be administered normally via the mouth but for clinical reasons needs to be administered via the enteral route. Such products include:

- A commercially available liquid medicine formulation.
- Soluble tablets.
- A specially manufactured liquid medicine.
- Tablets crushed and mixed in water.
- Capsules opened and mixed in water.
- Injections administered orally.

Oral Syringe

An oral/medication syringe (less than 30ml) are colour coordinated purple and/or labelled 'ORAL' designed to measure liquid medications intended for administration via an enteral syringe into an enteral feeding tube or enteral administration/giving set.

Patient Episode of Care

A set of drug or feed administrations and/or flushes; given at a set administration time for an individual patient.

Parenteral Route

Medication administered via a route other than the digestive tract i.e., by intravenous, intramuscular, subcutaneous injection.

Pestle and Mortar

Ceramic device for crushing tablets.

Rectal Route

Medication administered into the rectum.

Sanitising Wipe

A wipe which includes a detergent and disinfectant e.g. Clinell, Universal.

Sterile Single Use

Sterile, to be used once for a single 'patient episode of care' and disposed of immediately.

Single Patient Use

Use for a single named patient for a specified length of time.

Sublingual Route

Medication administered under the tongue.

Tablet Crushers

Device for crushing tablets.

Transdermal Route

Medication absorbed through the skin.

**Home Enteral Feeding Regimen
Example**

Name:		DOB:	Hospital No:
Time	Type of Feeding: Pump <input type="checkbox"/> Bolus <input type="checkbox"/> Combination <input type="checkbox"/>		
	Feed or Fluid required (including rate/volume)		

If you have any problems with this regimen, please contact
(Home Enteral Feeding Dietitian) on 0115 969 1169 Ext. 74008
Date: