# PERCUTANEOUS ENDOSCOPIC GASTROSTOMY (PEG) GUIDELINE - ADULTS

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

## Introduction

This guideline covers the care of the patient prior to receiving an endoscopically placed gastrostomy (PEG), immediate post endoscopy care, longer term nursing care and care of the patient going home with a PEG. Adherence to these guidelines should ensure comprehensive care for all patients with a PEG, thus ensuring optimal nutrition support with reduced risk of complications.

## This guideline is for use by the following staff groups :

Doctors, nurses, healthcare assistants, dietitians, speech and language therapists, pharmacists and other AHPs.

## Lead Clinician(s)

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| Dr Thea Haldane | Consultant Gastroenterologist |
| Approved by Nutrition and Hydration Committee on: (Noted by Medicines Safety Committee and Trust Management Executive) | 14th December 2021 |
| Review Date: This is the most current document and should be used until a revised version is in place | 14th December 2024 |

**Key Amendments to this guideline**

| Date | Amendment | By: |
|---|---|---|
| May 2010 | • Changes to Introduction and competencies<br>• Changes to STAGE 1 Pre PEG assessment and Stage 2 - preinsertion<br>• Information added to complications post procedure section<br>• Changes to dietetic referral form appendix 6<br>• Changes to nursing care plan : PEG feeding (adults) appendix 8 | Sue Dickinson |
| 20/09/2012 | Guideline expiry extended whilst under review | Sarah Trenbirth |
| December 2012 | Guideline expiry extended whilst under review | Nalinee Owen |
| January 2013 | Guideline expiry extended whilst under review | Sarah Trenbirth |
| November 2016 | Documents extended for 12 months as per TMC paper approved on 22nd July 2015 | TMC |
| April 2017 | Document extended for 6 months whilst update being completed | Sarah Pritchard |
| September 2017 | Document extended for 3 months as per TMC paper approved 22nd July 2015 | TMC |
| November 2017 | Document extended whilst under review | TLG |
| November 2017 | • Changes to include that all patents must be discussed at an MDT meeting either PEG MDT or Head and Neck MDT<br>• Increased criteria to consider pre PEG recommendation<br>• Addition of pre PEG Counselling to consider when withdrawal of treatment and “Best interest” meeting to determine quality of life benefits<br>• Addition of PEG MDT referral and Outcome forms (Appenedix1)<br>• Updated PEG assessment and Referral flowchart(Appendix 2)<br>• Addition of reference to the updated Mouth Care guidelines<br>• Change for the Advance and Rotation of the PEG to happen at 2 weeks not 10 days<br>• Change to be complaint with the new ENFit regulations of 2017<br>• Addition of prevention and management of Buried Bumper<br>• Updated PEG referral form as produce by Endoscopy(Appendix 3)<br>• To include the updated Anti-coagulation management flowchart (Appendix 4)<br>• To include the Updated PEG starter regimen (Appendix 6)<br>• Updated Nursing care plan post insertion(Appendix 7)<br>• Inclusion if management of Diabetes pre insertion (Appendix 8)<br>• Information on how to change an ENFit PEG end included (Appendix 11)<br>• Checklist for discharging patient home on Enteral feed (Appendix 14) | |
| December 2017 | Sentence added in at the request of the Coroner | |
| October 2019 | Document extended for six months whilst under review | Dr Thea Haldane |
| May 2020 | Document extended for 6 months during COVID -19 period | |

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| October 2020 | Document Extended for 6 months whilst review is completed | Sarah Pritchard |
| 21st May 2021 | Document extended for 6 months whilst review process is completed | Sarah Pritchard |
| December 2021 | Document reviewed and updated | Dr Thea Haldane |

# CONTENTS

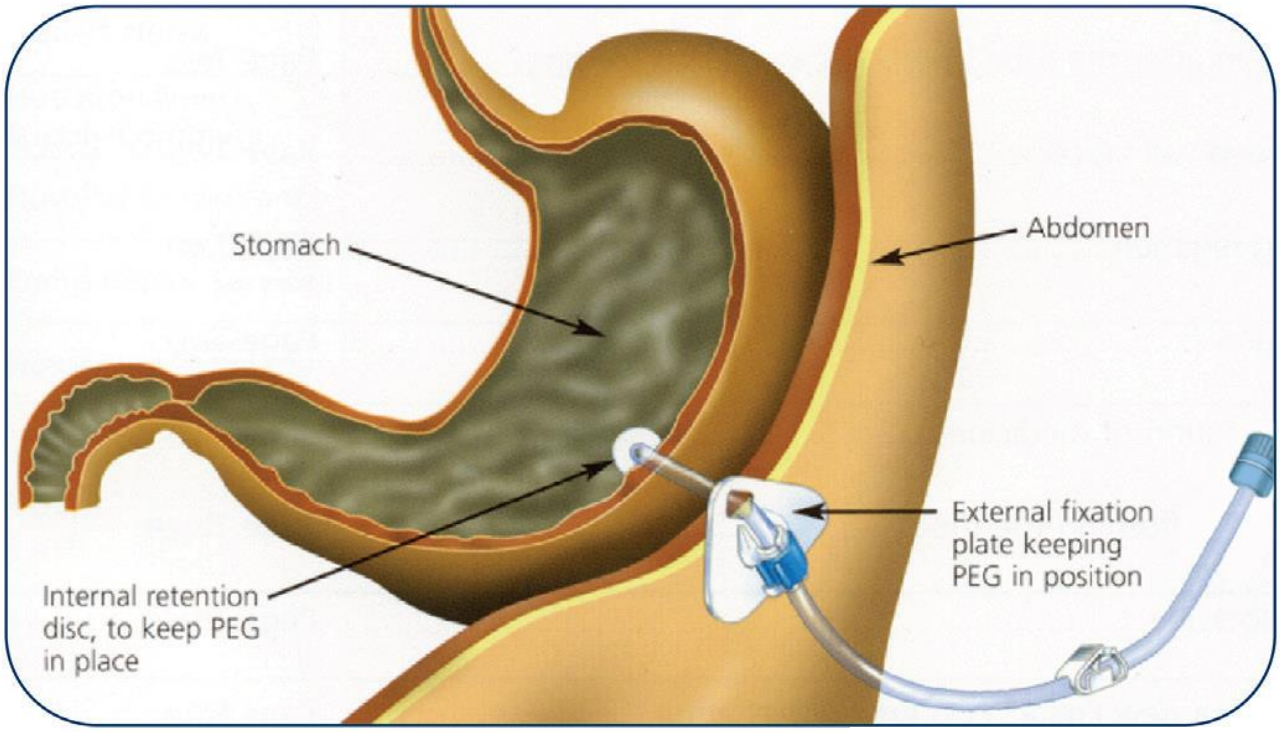
# PERCUTANEOUS ENDOSCOPIC GASTROSTOMY (PEG) GUIDELINE

## INTRODUCTION

Percutaneous endoscopic gastrostomy (PEG) is a method of artificial enteral nutrition.

***"Patients who either are unable to take any nutrition orally or who are unable to take sufficient nutrition orally, but in whom the gastrointestinal tract is functioning, may be fed enterally. This implies feeding into the gastrointestinal tract using a tube"*** (BAPEN 2018)

Gastrostomy feeding involves the creation of a tract between the stomach and the surface of the abdomen. Gastrostomy tubes may be placed endoscopically (PEG), surgically or radiologically. The PEG tubes of choice at Worcestershire Acute Hospitals NHS Trust are the Fresenius Kabi PEG tube FG15 (Freka 15).




Fresenius Kabi 2016

The Freka 15 tube is made from polyurethane and is designed for long term feeding. The internal fixator acts as an internal retention device holding the tube in place. The outer tube has an adjustable fixation plate/triangle and a safety clamp. At the end of external tube there is an ENFIT fitting which fits directly onto the feed giving set or an ENFIT syringe.

**The guideline covers the different stages for the patient from referral to discharge:**
**Stage 1: Pre-PEG - Referral and assessment**
**Stage 2: PEG insertion and immediate post endoscopy care**
**Stage 3: Starting the feed regimen**
**Stage 4: Long-term care of the PEG**
**Stage 5: Trouble shooting**
**Stage 6: Planning the patient's discharge**
**Stage 7: PEG replacement and removal**

## COMPETENCIES REQUIRED

Setting up and monitoring of the enteral feeding system, flushing the PEG tube, administration of medications down the tube and initial cleansing of the PEG site post insertion must only be carried out by a registered nurse.

Cleansing of the PEG site once the stoma site is healed may be carried out by healthcare assistants with permission and instruction from the registered nurse responsible for the patients care.

Training on PEG care for patients/carers may be obtained from the ward nurse or Homeward Nutricia nurse. Use of the Flocare Infinity feed pump requires competency based training for both the nurse and the end user.

**Indications for considering a PEG:**

- Following a 2-4 week trial of NG feeding with no improvement in swallow (NICE 2006)
- Progressive neurological conditions (eg. Motor Neurone Disease, Multiple Sclerosis) (BAPEN 2019)
- A permanent swallow impairment (eg. Dysphagia following a stroke). The patient must have been assessed by Speech and Language Therapist and must be at least 2 weeks post CVA (NICE 2006)
- Planned PEG placement for Head and Neck patients undergoing surgery/ radiotherapy (BAPEN 2019)
- Patients who are likely to require enteral feeding for longer than 4 weeks (NICE 2006)

N.B.:

- Food avoidance is not an indication for PEG placement.
- Aspiration risk will not be improved with a PEG placement.
- Severe dementia is a contraindication for PEG / RIG placement (NICE 2018)

**Indications of RIG:**

A PEG should be the first line option for long-term feeding, however if a PEG is contraindicated and cannot be placed then a RIG must be considered:

- Where the patient cannot lie flat due to physical anatomy or clinical condition
- Where an endoscope cannot be passed for example; partial obstruction of the oesophagus and some head and neck cancers

# STAGE 1

## PRE-PEG ASSESSMENT

Patients being considered for a PEG should be referred by the medical team to peg.mdt@nhs.net after an assessment by the speech and language therapist (SLT) who will check whether it is safe for a patient to swallow **if some oral intake is to be maintained**. The Fiberoptic Endoscopic evaluation of swallowing (FEES) or **Videofluoroscopy may be carried out** to give further information.

**NUTRITION MDT**: Head and Neck cancer patients can be discussed at Head and Neck MDT then inform Nutrition MDT team. All other patients being considered for a PEG in Worcestershire must be referred to and discussed at Nutrition MDT including Gastroenterologist Consultant, Palliative Medicine Consultant, Nutrition CNS, Dietitian and Speech and Language Therapist. PEG referral form (Appendix 2) has to be completed by ward team prior Nutrition MDT and email to peg.mdt@nhs.net before 5pm every Monday. See PEG assessment and referral flow chart for more information (appendix 1).

'Scoping our practice' (NCEPOD, 2004) and NICE (2006) recommend that the multidisciplinary team (MDT) should discuss the benefits and risks of PEG placement for a patient prior to PEG insertion. If the patient has capacity, the procedure should be discussed with them and informed consent gained. If the patient will not be caring for the PEG themselves, carers and family will need to be involved in planning and discussions around the PEG.

If the patient lacks mental capacity to make decisions and is unable to consent, a formal capacity assessment should be carried out and capacity documented. A 'Best Interests' meeting should be organised. It is important to know whether there is a LPOA (Lasting Power of Attorney) for Health and Welfare. The procedure should be discussed with next of kin (NOK) but where there is no LPOA a 'best interests' decision will be made, taking into account the risks and benefits of the procedure in relation to the individual patient and any previously held views/wishes of the patient (in line with Mental Capacity Act 2005). If there are no NOK an IMCA (Independent Mental Capacity Advocate) should be involved to represent the patient.
When selecting patients for PEG insertion the following criteria should be considered:

Indications:
- Inadequate or unsafe oral intake
- Risk of significant malnutrition

Anatomical considerations:
- There must be a functional gastro-intestinal tract.
- Upper gastro-intestinal tract dysfunction – consider Jejunal feeding.
- Previous surgery
- Unusual anatomy, e.g. large hiatus herniae, morbid obesity
- Oesophageal/oral pathology. NB, Large lesions carry risk of seeding.

Practical considerations:
- Unable to use naso-gastric feeding to achieve nutritional intake.
- Enteral tube feeding is likely to be needed for more than 4 weeks.
- Acceptability of the PEG to the patient.
- Availability of future care facilities – who will provide PEG care?
- Will a package of care be required?
- Training required for patient and or carers on the use of equipment.

Ethical considerations:
- Assessment of the patient's long term quality of life.
- Assessment of the patients prognosis
- Exclusion of advanced dementia (NICE 2018)

Comorbidities:
- If a respiratory assessment needed e.g. for patients with motor neurone disease (MND).

Contraindications:
- Advanced chronic liver disease with presence of varices and/or or ascites
- Peritoneal dialysis.
- Coagulation and clotting disorders (although corrected they would not be contraindications)
- Recent MI – general guide is to avoid PEG for 6 weeks.

(See appendix 1 for pre-PEG flowchart).

**EDUCATION AND COUNSELLING PRIOR TO PEG PLACEMENT**
- Ensure the patient, their family and carers have received adequate education and counselling, informing them of the potential impact on their lifestyle and body image, thus enabling them to make an informed decision about proposed PEG placement. This should include information from a Dietitian on how best to meet nutritional needs.
- Detailed and informed discussion should take place with the patient, their family and carers, including risks and benefits.
- Patients with a poor quality of life/advanced dementia are unlikely to benefit from PEG placement (NICE 2018).

- Patients/Carers provided with written information on procedure; Inserting a Percutaneous Gastrostomy tube WHAT-CG-122 or Head and Neck cancer PEG booklet by Head and Neck team Dietitians.

**REFERRAL FORM**

**No PEG should be placed without a completed PEG referral form. This form must be completed in full for the procedure to be booked – incomplete forms or typed request will be returned to the referring team.**

The PEG procedure referral form (Appendix 4) should be completed by the GP or Consultant and must be forwarded to the dietitian and if required to SLT. The Dietitian will assess the patient's nutritional requirements to check a PEG is the best option for meeting nutritional requirements.

The following should be documented on the PEG referral form to ensure all involved in patients care are clear on the aim of PEG insertion:

- Whether the PEG is being placed to provide nutrition support in the future or for immediate use.
- Whether the PEG will be used to provide complete nutrition and fluid or for supplementary intake or for fluid only.

Once the dietitian has completed their assessment the form is returned to Endoscopy who will arrange a date for PEG placement.

**PRE PEG INSERTION RESPONSIBILITIES**

Referring team to:

- Assess for contraindications.
- Check any anti-coagulation or anti platelets medications and make plans to withhold prior to procedure as appropriate. Please see separate guidelines for anticoagulation and anti-platelets in endoscopy - WAHT HAE-002A.
- Adjust Diabetes medication as required. Please see separate guidelines for diabetes - WHAT-END-012)
- Ensure best interest meeting has taken place if required.
- Ensure consent has been ascertained and complete the E-Consent / relevant consent form.
- For outpatients, notify the GP that the procedure is to take place.
- Notify ward pharmacist that the procedure is to take place to review if medications suitable for PEG administration.

Dietitian to:

- Organise training with Homeward Nutricia nurse.
- Carry out a nutritional assessment of the patient.

Nutrition CNS or Community Dietitian for HWHCT community hospitals:

- Discuss with the patient/carer how the PEG is used for feeding and hydration including showing what the PEG looks like and method of feeding; Bolus versus pump.

Ward staff to ensure that:

- The patient is nil by mouth for 6 hours pre procedure for food (stop enteral feeds) and 2 hours for clear fluids (water).
- Patient has had a bath/shower prior to procedure.
- Patient is made aware of what the procedure entails.
- The patient brings an overnight bag as they may need to stay.

# STAGE 2

**PRE PEG INSERTION (ON THE DAY) See Appendix 5 for checklist**

Medical team to ensure:

- Patient is aware of what the procedure entails.
- Ensure appropriate management if patient has diabetes, see guidelines WHAT-END-012.
- INR screen completed for inpatients and outpatients who are on anti-coagulants. INR result to be checked on the ward prior to patient going to endoscopy on the day of the procedure. INR is required to be less than 1.5 for the procedure to go ahead.
- Appropriate management for patients on Warfarin and new anti-coagulant therapies or clopidogrel must have been advised according to the Endoscopy guidelines (WAHT HAE-002A).
- For outpatients who are not on anti-coagulants the INR should be checked within a week of the procedure by the GP surgery. If the patient has not been seen in clinic, the GP should be notified at the time the procedure is booked and asked to arrange blood tests. INR should be below 1.5. If it is above this then the patient will need Vitamin K prescribing and a repeat test prior to the procedure. Platelets should be >75.
- Consent for the procedure has been gained from the patient or relative / best interest MDT meeting if the patient lacks capacity.
- That the patient has IV access.
- Prophylactic Antibiotic dose given to reduce the risk of peristomal infection

| **Prophylactic antibiotic dose to be given 30 minutes prior to procedure:** |
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| ○ **IV antibiotic co-amoxiclav - 1.2g IV single dose** |
| ○ **Or gentamicin 120mg single dose if penicillin allergic** |

Ward staff to ensure:

- Pre-Procedure checklist for endoscopic procedure has been completed (see appendix 5)
- Patient has been nil by mouth for 6 hours pre-procedure for food and 2 hours for clear fluids (water).
- Oral care should be carried out daily on the ward
- Personal hygiene should be carried out daily on the ward
- Baseline observations carried out before the procedure and documented.

**IMMEDIATE CARE POST INSERTION**

- Endoscopy to:
  - Complete post procedure routine observations until the patient returns to the ward.
  - Document the measurement on the PEG tube at the point of the fixation plate
  - Document tube type and any attachments

- Ward staff to:
  - Half hourly observations including NEWS2 for at least two hours or until stable, patient alert & orientated and haemodynamically stable.
  - Observe stoma site for at least two hours until stable.
  - Observe for excessive bleeding, drop in blood pressure and raised pulse (hypovolaemic or septic shock).
  - Once stable continue with 4 hourly observations until discharge.
  - Observe for signs of pain and administer analgesia as required.
  - The patient will arrive from Endoscopy **without** a dressing. A dressing is not usually required unless clinically indicated e.g. excessive exudates.
  - Monitor for abdominal pain, pyrexia and tachycardia prior to administering water via the PEG.
  - The external fixation triangle should not be released for the first 72 hours after placement but ensure cleansing and drying takes place daily. The fixation plate should be comfortably against the skin, if it is too close or too far away seek senior medical advice to consider moving it before 72 hours.

- **If there is prolonged or severe pain post procedure, fresh bleeding or leakage of gastric contents: stop any feed/medication delivery and seek senior medical advice urgently.**

**"RED FLAG" SYMPTOMS – COMPLICATIONS POST PROCEDURE**

Complications most likely to result in serious illness or death in the **immediate period** after PEG insertion include (NPSA 2010)

- Aspiration pneumonia
- Colonic Perforation
- Haemorrhage
- Wound infection
- Peritonitis

These complications are rare but when they have occurred, the "red flag" symptoms have often been present within the first 72hrs. These symptoms are:

- Pain on feeding
- Prolonged or severe pain post procedure
- Fresh bleeding
- External leakage of gastric contents

**At all times staff should be aware of these symptoms.**

If these symptoms occur:

- Feed and medications should stop immediately.
- Seek urgent senior medical advice, (usually the Gastroenterologist on call, out of hours call Medical or Surgical SPR for urgent review of the patient)

Patients going home within 72 hours of PEG placement must be aware of the Red Flag symptoms and be provided with the PEG booklet. They should contact the endoscopy department if these occur, and should attend A&E for urgent review.

## STAGE 3

**PEG STARTER REGIMEN**

- The patient should remain nil by PEG and nil by mouth for 4 hours post procedure (NICE 2006).
- 4 hours post insertion; begin to flush the PEG tube with 50ml sterile water using a 60ml ENFIT syringe. Continue to flush as per PEG starter regimen (see appendix 6).
- After flushing, if the PEG is to be used for feeding the PEG feed regimen can be commenced as per Dietitian instructions.
- If the patient is being discharged on the same day as PEG placement ensure that the Dietitian has arranged a Homeward Nutricia Nurse follow-up visit and that the patient has had the appropriate discharge training, literature and equipment (see Stage 6 for discharge procedure)

**STARTING THE PEG FEED**

- To reduce aspiration risk ensure the patient is elevated at a 45° / semi-recumbent position and remains in this position for at least 1 hour after the feed has finished (NOTE: this should also be followed when lying patients flat for personal care).
- Monitor for "red alert" symptoms, if symptoms occur stop the feed and seek urgent senior medical review.
- If nausea or abdominal distension occurs, stop the feed and seek medical review.
- Use sterile packs of enteral feed as per Dietitians instructions or follow the "Out of hour's emergency Enteral feed regimen" if no plan available (WAHT-NUT-008).
- Feed and giving sets should be hung for no longer than 24 hours.
- Any handling of the feeding system should be carried out using aseptic technique.

- A bolus feed must be given slowly over a 10-15 minute period to reduce the risk reflux aspiration and aid feed toleration.

**ENSURE CORRECT MONITORING OF NUTRITIONAL STATUS**

- Give feed as prescribed by dietitian and record on fluid balance chart.
- Water flushes may vary according to a patient's requirements. Follow Dietitian advice and document flushes on fluid balance chart.
- Record patient's weight weekly on MUST or as clinically indicated for community patients (NICE 2006).
- If the patient is eating ensure that food and/or fluid texture is in accordance with instructions from speech and language therapist and is reviewed regularly.
- Swallow safety should be re-checked by speech and language therapist as appropriate.
- Keep strict food record chart and notify dietitian for re-assessment if there is a change in food intake
- Monitor U&Es, bone profile, magnesium, phosphate regularly (NICE, 2006).
- If the patient is at risk of re-feeding syndrome refer to re-feeding guideline WAHT-NUT-006, Fluid balance, bloods and blood glucose need to be monitored daily and corrected as required. When stable in normal range and full feed established, monitoring of refeeding bloods can discontinue.

**Regular mouth care**

- Ensure regular mouth care is followed according to Trust Oral Care guidelines. This is particularly important for patients that remain nil by mouth (NBM) (WAHT- NUR-061)

## STAGE 4

**POST PEG INSERTION CARE (UP TO DAY 14)**

- A dressing is not normally required unless clinically indicated, e.g. excessive exudates - If exudate is present, a suitable dressing may be required. Selection of dressing will be dependent on stoma site assessment and referral to the Trust wound dressing guidelines.
- After 72 hours begin to release the external fixation triangle on a daily basis to allow thorough cleaning of the stoma site. Replace the fixation triangle back to the original position (approximately 1cm from the skin).
- If the fixation plate appears too tight in the initial 72 hour period, liaise with experienced medical personnel to confirm it can be released slightly. Ask patient and carers to observe for signs of pain at or leakage or bleeding around stoma site, give analgesia as prescribed.
- Daily PEG care:
    - Clean the stoma site daily using sterile water for the first 14 days or until stoma site has healed.
    - Ensure all accessories are clean.
    - Observe stoma site for signs of infection e.g. redness, swelling, pain or discharge. When infection suspected---inpatient: nurse need to send swab to microbiology for culture and report to ward medical team; outpatient: contact GP.
    - Daily mouth care is important, especially if the patient is NBM (regardless if patient has PEG or not)
    - Monitor for "red flag" symptoms. If any occur stop any feed/medication delivery and seek senior medical advice urgently.
- Head and shoulders should be elevated at least 45 degrees/semi recumbent position during feeding and for at least 1 hour afterwards.
- Flush minimum once daily with 50ml drinking water if the tube not being used for feeding.
- During first 2 weeks stoma should be kept clean with sterile water. Baths should be avoided. Patient can have a shower and there is no need to cover the stoma site.

## POST PEG INSERTION CARE (DAY 14 ONWARDS) – STOMA SITE HEALED

- Daily PEG care:
  - Clean stoma site – with un-perfumed soap and water, rinse and dry.
  - Ensure the end adaptor is cleaned.
- Observe stoma site for signs of infection e.g. redness, swelling, pain or discharge. When infection suspected---inpatient: nurse need to send swab to microbiology for culture and report to ward medical team; outpatient: contact GP.
- Monitor for “red flag” symptoms.
- Head and shoulders should be elevated at least 45 degrees/semi recumbent position during feeding and for at least 1 hour afterwards.
- Flush daily with 50ml drinking water if the tube not being used for feeding.

## ADVANCE AND ROTATE

- After 2 weeks post placement the PEG MUST be advanced and rotated daily to prevent Buried Bumper syndrome. (See Appendix 8 for details).

## INFECTION CONTROL AND SAFETY

- Feed should be hung for no longer than 24 hours.
- Check the use by date on the pack before use.
- Any handling of the feeding system should be carried out using aseptic technique.
- Giving sets should be changed every 24 hours.
- All purple enteral syringes used in hospital are single use, in the community multi-use syringes will be used (unless specified otherwise) for a maximum of 84 uses and should be washed out between uses with warm soapy water, rinsed in cold water and then left separate to air dry, only reassembling the syringe just prior to use.
- Sterile water should be used for flushes, please see Pharmacy policy MedPolSOP11 - Administration of Oral & Enteral Liquid Medicines. In HWHCT community hospitals freshly drawn tap water can be used unless otherwise advised.

## ADMINISTRATION OF MEDICATIONS (See MedPolSOP11)

- Accountability – The prescriber must change the route on the prescription chart to make it clear that medicines are to be given via the PEG.
- Patients who need to have medicines administered via the PEG tube should have their prescriptions reviewed and their regimen simplified where possible.
- Consult the pharmacist for advice regarding medicine-feed interactions.
- Consideration should be given to using other routes and/or once-daily regimes where possible
- The pharmacist may suggest alternative medicines/routes if there is doubt about the suitability of a medicine to be given via the PEG tube.
- Where possible all medications should be prescribed in liquid or soluble tablet form to prevent tube blockage. Some tablets that are not marketed as soluble will disperse in water.
- Discuss any medicine which does not come in liquid form with the medical team and the pharmacist.
- Some liquid medicine preparations can be very thick and should be diluted with an equal volume of water before administration.
- Crushed or opened tablets should be avoided if possible as the particles may adhere to the sides of the tube and there is some exposure to the powder. There are some tablets/capsules that must not be crushed or opened, please consult pharmacist/medical team.
- When administering medications via the tube flush with water before and after. Where more than one medication is given flush with a minimum of 10ml in between each medication. **DO NOT** mix medications together give each medication separately.
- Some medications interact with enteral feed, please contact pharmacist/medical team for advice.

ENFit syringes are used for all patients within The Trust; Adaptors may still be required to attach an ENFit syringe to the PEG end if an old PEG end is in use. New ENFit PEG ends are available from Endoscopy. All new Freka 15 PEGs placed within the Trust should have an ENFit compatible end (ESPG ISO 80369-3).

Use 60ml ENFit syringes for flushing and an appropriate size for medications.

## STAGE 5

**TROUBLE SHOOTING**

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| Stoma Infection | • If stoma site infection is suspected, send swab of site to Microbiology for culture and sensitivity and inform Infection Control Team as soon as possible.<br>• If dressing is required due to excessive exudates, the choice of dressing is dependent on stoma site assessment (refer to Trust wound dressing guideline).<br>• Any external leakage of gastric contents or fresh blood stops feed/medications immediately and seek urgent senior medical review. |
| Tube Blockage Prevention | • Tube blockage can be prevented with regular flushing with water (minimum once a day if tube not used).<br>• Use a 60ml enteral ENFIT syringe.<br>• In hospital sterile water is used for flushing.<br>• At home freshly drawn tap water or cooled boiled water can be used.<br>• Flush with 30-50ml water before starting the feed and after it is stopped.<br>• Flush with 30-50ml water before medications, flush 10ml water between each medication and flush 30-50ml water once the medication is given.<br>• The volume of water to be used for a flush may vary depending on patients' fluid requirement so check feeding regimen.<br>• **DO NOT** mix medications, all medications should be given separately (see page 10 for further info on medication administration). |
| Tube Blockage Procedure | • Check the clamp is open.<br>• Attach a 60ml enteral ENFit syringe containing 20-30ml water and pull back to try to unblock the tube.<br>• Massage the tube by rolling it gently between your fingers using small movements. Start from the end furthest away from the body and work towards the abdomen.<br>• Try flushing with 30mls of warm water.<br>• Wait 30 minutes.<br>• If this doesn't work try flushing with 30ml of carbonated soda water.<br>• DO NOT use too much force or any sharp objects to unblock the tube (this may cause damage to the tube).<br>• If the tube will not unblock inform the Homeward Nutricia nurse for advice or the endoscopy unit. |
| Replacing the ENFit PEG end (see appendix 11) | • Wash and dry hands.<br>• Close clamp on tube.<br>• Detach the white fixation screw from the new ENFit end and attach to the coloured hexagonal end of the previous PEG end.<br>• Unscrew the previous hexagonal end from the adaptor.<br>• Pull off the metal pin and remove the previous adaptor from the tube. (It is usually firmly attached; use a finger nail to ease off the pin).<br>• Replace the white fixation screw on to the hexagonal end of the new |

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| | ENFit end and slide onto the tube.<br>• Push the metal pin with adaptor into the tube.<br>• If connection is loose or the tube is stretched, trim 1cm off the tube length.<br>• Screw onto the fixation screw.<br>• Remove the white fixation screw to prevent accidental removal of the adaptor end. |
| Signs tube may need replacing | • There is no limit on how long a PEG lasts, it can last over 6 years however some need changing sooner or later.<br>• Signs – flattened or brittle tube.<br>• Contact Homeward Nutricia nurse if you are concerned about the tube – they can advise if the tube can be trimmed to extend its life rather than replacing it.<br>• It is normal for the tube to become discoloured it is not usually a sign it needs replacing.<br>• Moving the clamp position regularly will lengthen the life of the PEG preventing the tube becoming weak in one position. |
| Prevention of Aspiration | • Head and shoulders should be elevated at least 45 degrees/semi recumbent position during feeding and for at least 1 hour afterwards.<br>• Regular mouth care.<br>• Bolus feeds must be given slowly over 10-15 minutes |
| Prevention of hyperglycaemia / hypoglycaemia | • Refer all patients with diabetes on a feed to the diabetes specialist nurse team for review of diabetes medication.<br>• Regular monitoring of blood glucose should be carried out for patient with diabetes.<br>• It is good practice to monitor every patient's blood glucose level in the initial stages of enteral feeding.<br>• Refer to guideline for enteral tube feeding (nasogastric or PEG) in patient with diabetes mellitus treated with insulin (WAHT-END-009). |
| Prevention of Nausea and Vomiting | • When starting a feed gradually increase the rate and volume as prescribed by the dietitian.<br>• If bloating and nausea occurs, reduce the feed rate until symptoms subside.<br>• If the patient is vomiting, the feed should be stopped and the cause of vomiting investigated.<br>• Report any changes in feed rate to the dietitian.<br>• Ensure fluid requirements are met via the IV route until feeding is re-established.<br>• Ensure patient is sitting at 45 degrees where possible.<br>• Medical team to consider use of pro-kinetics and monitor that patient bowels are opening regularly. |
| Diarrhoea | • If diarrhoea occurs, record on the stool chart and send specimen to microbiology. Note patient's normal bowel habit. Inform infection control.<br>• Note any clinical cause of diarrhoea e.g. inflammatory bowel disease or faecal impaction (overflow diarrhoea).<br>• Slow feed rate and report to dietitian.<br>• Ensure fluid requirements are met via the oral or IV route as appropriate until feed is re-established.<br>• Ensure hand hygiene policy adhered to. |

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| | • Ensure maintenance of asepsis during feed handling. |
| Prevention of Re-feeding | • For patients who have had a poor nutritional intake for 5 days or more prior to PEG insertion and those at risk of re-feeding syndrome, blood tests for serum potassium, phosphate and magnesium should be taken on the day of insertion so that the feed can be safely started.<br>• See re-feeding guidelines for more information – (WAHT-NUT-006). |
| Buried Bumper Syndrome | • A Buried bumper is where the PEG sitting in the stomach becomes buried partially or completely within the gastric mucosa. This is a complication caused by inadequate advancing and rotating of the tube.<br>• A Buried bumper usually presents with an inability to advance and/or rotate the tube. It may be difficult to flush the tube and may limit feed and medication administration.<br>• **Prevention –** The tube should be advanced and rotated daily after 2 weeks. The tube should be advanced 4-5 cm every day if possible but a minimum of twice weekly. This should start 2 weeks following the procedure. The fixation triangle should be kept approximately 5-10mm from the skin.<br>• **If suspected-** liaise with the nutrition team for advice. The patient is likely to need an endoscopy to confirm the tube is buried.<br>• A jejunal extension tube may be placed to keep the PEG patent and usable. Most buried bumpers are removed in endoscopy using a flamingo technique, some patients may require surgical replacement. |
| Altered Body Image | • Observe patient for signs of depression due to the loss of normal eating patterns.<br>• Involve patient carer in care of PEG at all stages where possible.<br>• Ensure dignity and privacy. |
| Over granulation | • Ensure cleaning/advance and rotate/fixation plate placement guidance is being followed<br>• Suitable 1st line treatments; Antimicrobial PHMB dressings, honey dressings/ointments, silver dressings, Corticosteroid preparation with a foam-based dressing.<br>• If no reduction in size or marked improvement consider; change of dressing type, frequency of dressing change, (re) swab stoma site for infection, check the feeding tube is the correct size, consider changing feeding tube to alternative device, consider possibility of malignancy, consider allergy to tube material. |

# STAGE 6

**DISCHARGE PROCEDURE**

**Complete PEG discharge checklist (Appendix 11)**

Inform the dietitian of the planned date for discharge as soon as possible and where the patient is being discharged to.

If the discharge date is within 72 hours of PEG placement, ward staff should inform the patient and the GP about monitoring for 'red flag' symptoms and the action required should they occur.

Dietitian to:

- Obtain consent to register patient on Homeward delivery system and organise training on PEG care by liaising with the Homeward nurse.
- Register with Homeward for ancillary deliveries.
- Contact the GP for the feed prescription
- Provide feeding regimen on discharge to the patient/carer.
- Provide contact numbers and troubleshooting written information.
- Discuss with the patient/carer where to obtain the feed from post discharge.
- Liaise with the District nurse team (if necessary).
- Provide a pump and stand. (if not delivered prior to discharge)
- Organise out of county transfer by handing over to the relevant dietetic team if the patient does not have a Worcestershire GP.

Homeward Nutricia nurse to:

- Provide training to the patient/carer on PEG care and using the tube.
- Contact the District nurses/Care agency/Nursing Home to offer training.
- Report back to the ward and referring dietitian if there are any concerns with competencies.

Ward to:

- Facilitate agreement on any additional support required to discharge, in particular if a package of care is required.
- Provide a 7 day supply of feed, syringes and giving sets if using a Feed pump.
- Contact District Nurses for follow up care of tube and PEG site
- Notify team of discharge date

Speech and language therapist / nursing staff to:

- Ensure the patient/carer is aware of what oral intake is safe
- Confirm if patient is to remain Nil by Mouth.
- Provide information on mouth care.

# STAGE 7

**TUBE REPLACEMENT**

The Freka 15 PEG does not have a shelf life. Well cared for tubes can last for 6 years or more. To extend the life of the PEG tube the clamp should be moved regularly to prevent a weak spot from developing. Aim to keep the clamp in the bottom third of the tube. When not in use, Patients can be encouraged to keep the clamp open assuming the PEG end is tightly fastened. Contact the Homeward Nutricia nurse on 08457 623640 to assess if the tube requires replacement and how urgent the replacement is.

The GP should be contacted to refer to the endoscopy department to organise tube replacement if required. If needed, the appropriateness of tube replacement should be discussed at a nutrition multi-disciplinary team meeting.

**TUBE REMOVAL**

For head and neck cancer patients with a Freka 15 tube, this may be removed using the 'Cut and Push' technique, refer to Head and Neck team to discuss.

For other patients or patients not suitable for a "Cut and Push" procedure, the tubes can only be removed via endoscopy. The patient must have had a dietetic review to assess if they can meet their nutritional and fluid requirements without the tube and take their medication orally. The dietitian will contact the GP/consultant requesting that they refer to the endoscopy to organise the procedure.

Provide patient/carers written information on removal procedure; Removing your Percutaneous Endoscopic Gastrostomy (PEG) tube WHAT-CG-123.

**MONITORING TOOL**

To be done by dietitians with assistance from clinical governance. To be audited every 2 years via medical and nursing notes and questionnaire.

| Standards | % | Clinical exceptions |
|---|---|---|
| All patients will have a PEG referral form completed prior to PEG insertion | 100 | Nil |
| Medical & nursing staff should be aware of the red flag symptoms and action taken as appropriate | 100 | Nil |
| All medicines via PEG should be administered as per appendix 10 of this guideline | 100 | Nil |

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WAHT-NUT-006 – Guideline for the identification and management of re-feeding syndrome

WAHT-NUT-008 - Out of Hours Emergency Enteral Feeding Regimen (Including Risk Reduction for Re-feeding Syndrome)

WAHT- END-009 - Guideline for Enteral Tube feeding (nasogastric or PEG) in patients with Diabetes Mellitus treated with insulin.

WAHT-NUT- Cut and push technique for removal of PEG (number to be advised)

WAHT- CG-122 *Investigative procedure information leaflet. Inserting a Percutaneous endoscopic gastrostomy tube insertion*

WAHT-CG-123 *Investigative procedure information leaflet Removing a Percutaneous endoscopic gastrostomy tube insertion*

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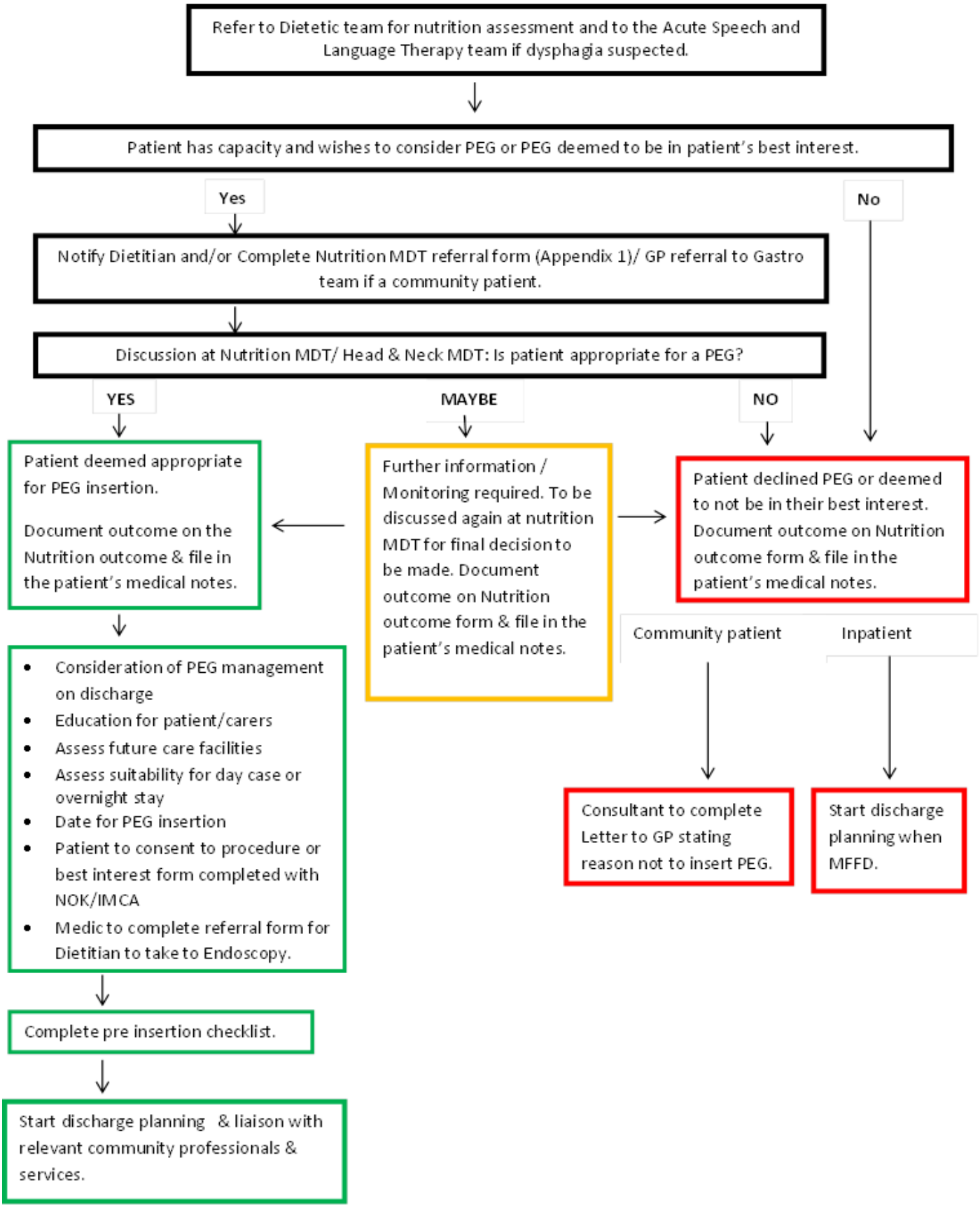
## APPENDIX 1 PEG ASSESSMENT AND REFERRAL FLOW CHART



## APPENDIX 2: NUTRITION MDT-REFERRAL FORM

Referral form is available on the nutrition MDT intranet site:
http://nww.worcsacute.nhs.uk/departments-a-to-z/nutrition-mdt/

Please email completed referral to peg.mdt@nhs.net

After the MDT, the MDT form will be filed in the correspondence file on CLIP.
If the patient is on the ward, a paper copy is usually also brought to the ward.

Affix Patient Label here or record:

Name: .....

NHS No: | | | | | | | | | | |

Hosp No: | | | | | | | | | | |

D.O.B: D D / M M / Y Y Y Y Male ☐ Female ☐

Ward:..... Cons.....

NHS Worcestershire Acute Hospitals NHS Trust

## NUTRITION MULTIDISCIPLINARY REFERRAL FORM

**This form must be completed in full in order for the patient to be discussed in the MDT Meeting.**

Please email completed form to: **peg.mdt@nhs.net**

**Please tick to confirm senior clinican with responsibility for the patient is aware of this referral** ☐

**Please tick to confirm dietitians are aware of this referral** ☐

### Clinical Information

**Past Medical History:**

**Date of Admission to Hospital:**

**Current Diagnosis/Reason for admission:**

**Reason for referral for discussion (please tick AND provide clinical details)**

☐ Unsafe swallow ☐ Unable to meet nutrition needs ☐ Route required for medication administration ☐ Other (please specify)

**Current approach to feeding:** ☐ NBM ☐ NG ☐ NG with bridle/mittens ☐ NJ ☐ TPN ☐ Oral trials ☐ Oral intake with no current swallowing problem ☐ Other:

**Is the patient on an anticoagulant/antiplatlet?** Yes / No / Not known. If yes please provide details:

**Plans for discharge:**

**Mental Capacity (as relayed by referring team) regarding decisions around Nutrition**

☐ Patient has capacity ☐ Patient lacks capacity ☐ Capacity not formally assessed

☐ Patient has legal proxy decision maker (Lasting Power of Attorney for Health) ☐ DOLS in place

**Have discussions taken place with patient/NOK/LPA/IMCA re: feeding?** If yes, please outline:

**Additional Comments** (for example, anticipated prognosis from underlying condition for patients with life limiting illnesses)

| **Referrers Name and Contact Number:** | **Date:** |
|---|---|

PF WR5531 Nutrition Multidisciplinary Referral Form Version 1 Page 1 of 2

## APPENDIX 3: NUTRITION MDT OUTCOME FORM

This form will be uploaded onto CLIP within 24 hours of the nutrition MDT, and a copy filed in the notes if they are an inpatient. The MDT form will be filed in the correspondence file on CLIP.

Affix Patient Label here or record:

Name: .....

NHS No: | | | | | | | | | | |

Hosp No: | | | | | | | | | | |

D.O.B: D D / M M / Y Y Y Y Male ☐ Female ☐

NHS Worcestershire Acute Hospitals NHS Trust

# NUTRITION MULTIDISCIPLINARY TEAM MEETING OUTCOME FORM

Current location: ..... Referred by: .....

| Team Members Present | |
|---|---|
| Dietitians | Name: |
| Gastroenterology | Name |
| Nutrition Nurse | Name |
| Palliative Care | Name |
| SLT | Name |
| Stroke | Name |
| Other | Name |

**Past Medical History:**

**Current Diagnosis/Reason for admission:**

**Reason for referral for discussion:**

☐ Unsafe swallow ☐ Unable to meet nutrition needs ☐ Route required for medication administration ☐ Other (please specify)

**Current approach to feeding:** ☐ NBM ☐ NG ☐ NG with bridle/mittens ☐ NJ ☐ TPN ☐ Oral trials ☐ Oral intake with no current swallowing problem ☐ Other:

**Is the patient on an anticoagulant/antiplatlet?** Yes / No / Not known. If yes, which drug:

**Mental Capacity (as relayed by referring team) regarding decisions around Nutrition**

☐ Patient has capacity ☐ Patient lacks capacity ☐ Capacity not formally assessed

☐ Patient has legal proxy decision maker (Lasting Power of Attorney for Health) ☐ DOLS in place

**Outcome**

Offer PEG insertion ☐ For PEG insertion once best interest process followed ☐ Not suitable for PEG

☐ Further information required. Actions/recommendations to referring team:

- ☐ A nutrition MDT Member will assess patient. Name: Role:
- ☐ Seek advice from another specialty for assessment. Specialty advised
- ☐ Formal capacity assessment needed ☐ Consider Deprivation of Liberty (DOLS)
- ☐ For re-discussion at the Nutrition MDT. Details:

**Comments**

| Signed: | Name: | Date: |
|---|---|---|

PF WR5532 Nutrition Multidisciplinary Team Meeting Outcome Form Version 1 Page 1 of 2

## APPENDIX 4 – PEG PROCEDURE REQUEST FORM

Worcestershire NHS Acute Hospitals NHS Trust

### Pre-Insertion Percutaneous Endoscopic Gastrostomy (PEG) Referral Form (page 1)

HOSPITAL: WRH / AH / KH / ECH - Medical team to post completed form to Dietetic Department
If referral is URGENT please ring Dietitian and Fax this form (both Sides)

WRH FAX NO: 01905 760168 EXT: 33691 AH FAX NO: 01527 512043
WRH TEL NO: 01905 760696 EXT: 33695 AH TEL NO: 01527 512 043

<table>
<tr><td rowspan="4">For In patient/Out-patient<br><br>Affix Patient Label</td><td>IN PATIENT/ OUT- PATIENT CLINIC</td><td>COMMUNITY PATIENT</td></tr>
<tr><td>Consultant:</td><td>Name of General Practitioner:</td></tr>
<tr><td>Ward:<br>Or OPD Clinic:</td><td rowspan="2">General Practice:</td></tr>
<tr><td>Requesting Doctor:</td></tr>
<tr><td rowspan="4">Community Patient<br>Surname:<br>Forename:<br>DOB:<br>Address:<br><br><br><br>Post Code:</td><td>Contact Bleep No:</td><td>Telephone Number:</td></tr>
<tr><td>Date Requested:</td><td>Date Requested:</td></tr>
<tr><td colspan="2">Is an assessment required by a Consultant Gastroenterologist / Consultant Surgeon prior to PEG insertion?<br>E.g. If patient had partial gastrectomy or significant abdominal surgery or needs a jejunostomy?<br>NO ☐ YES ☐ Date referred: ……<br><br>Dietitian will check with the Gastroenterologist Consultant the outcome of the assessment.</td></tr>
</table>

The decision to refer a patient for a PEG should be made by the Consultant or GP and the MDT team in charge of the patient's care. Referral to a Speech and Language Therapist (SLT) is required if swallow is unsafe. The patient needs to be reviewed by a dietician prior to PEG placement, either on the ward or in the community.

**This referral form should be completed by the medical team and dietitian prior to a date being booked in Endoscopy**.

Every case should be discussed in the Nutrition MDT or head and neck MDT for curative head and neck cancer patients. Each case should be discussed individually and should take into account patient's wishes.

Please refer to guideline WAHT-NUT-004 Percutaneous Endoscopic Gastrostomy Guideline for adults available on the Intranet.

| **Please state reasons for PEG insertion** | |
|---|---|
| CVA | Poor nutritional status |
| Multiple Sclerosis | Dysphagia |
| Motor Neurone Disease | Pre- radiotherapy / Pre-surgery |
| Trauma | Learning Difficulties |
| Head and Neck Cancer | PEG to be used at a later date (e.g. in MND) |
| Dementia – consider alternative support | Other – specify …….. |

**Please state extent of nutritional support via PEG at time of placement:**

Patient's Weight: …… Height: …….. BMI: …… Weight Loss: ……..

☐ For complete nutrition

☐ For partial nutrition e.g. overnight feed

☐ For water only i.e. patient can manage solids but not fluids

☐ For use at a later date- patient needs to keep tube patent by regular flushing

## APPENDIX 4 – PEG PROCEDURE REQUEST FORM PAGE 2

**PATHWAY**
**Medical decision made to insert PEG**

↓

**Referral to SLT:**
Does patient need a swallow assessment? YES □ NO □
If YES, date of referral to SLT: ……..
SLT to communicate to Medical team and Dietitian the outcome of the assessment.

**INPATIENTS: Refer to Refeeding Syndrome Guideline**
To consider naso gastric tube feed if appropriate whilst awaiting assessment. Medical team to check bloods for Re-Feeding syndrome i.e. (U and Es, Phosphate, Magnesium) and refer patient to Dietitian.

**COMMUNITY PATIENTS:**
Those who have swallowing problems, GP to refer to Medical team for further assessment.

↓

| FOR IN PATIENTS / OUT-PATIENTS/ COMMUNITY PATIENTS | | |
|---|---|---|
| Are there any medical risks or contra-indication for PEG insertion?<br>E.g. Ascites, gastric disease, abdominal surgery, anticoagulation therapy, peritoneal dialysis, recent MI (within past 6 weeks). | NO ☐ | YES ☐ |
| Has referring team informed patient/carer about the reason for a gastrostomy and completed the E-Consent / relevant consent form? | YES ☐ | NO ☐ |
| Is the patient on any anti-coagulants, if so please detail medication; | YES ☐<br>NO ☐ | |
| Has referring team informed patient/carer of long term implications of PEG feeding? | YES ☐ | NO ☐ |
| Has referring team explained to patient/carer how nutrition will be given via PEG tube? | YES ☐ | NO ☐ |
| Has referring team explained that the dietitian will contact the patient? | YES ☐ | NO ☐ |
| Is patient/carer agreeable to be contacted by telephone? | YES ☐ | NO ☐ |
| Name and contact No. of main carer: ……<br>Only refer to Dietitian if all boxes in shaded section are ticked | | |

↓

**Please post form to the Dietetic Department or if URGENT fax both sides of form.**
**WRH Fax No: 01905 760 168 internal EXT: 33691 AH Fax No: 01527 512 043**

**Dietetic Assessment:** **Date form received:**

**Will an Inpatient episode be required? YES ☐ NO ☐**
**If YES, please state reason:**

**Date Dietitian sent referral form to relevant Endoscopy Unit: ……**
**Date booked by Endoscopy Unit for PEG insertion: ……**
**Date Dietitian informed by Endoscopy Unit: ……**
On the day of the procedure, a copy of the Endoscopy Report to be faxed to Dietitian.

## APPENDIX 5 – PRE -PEG INSERTION CHECKLIST

**Pre insertion**

- Nil by mouth 6 hours food, 1-2sips of water may be taken up to 2 hours pre procedure
- Oral care carried out
- Consent obtained
- INR screen completed before going to Endoscopy
- Baseline blood tests done for those at risk of re-feeding syndrome (refer to re-feeding syndrome guideline)
- Patient has had shower or bath
- Patient wearing theatre gown
- Endoscopy aware if patient wearing dentures
- Baseline observations carried out and documented
- Prophylaxis antibiotic dose given.

| |
|---|
| ○ IV antibiotic co-amoxiclav - 1.2g IV once, |
| ○ Or gentamicin 120mg and metronidazole 500mg IV once only if penicillin allergic |

**Insertion of PEG according to local policy/procedure**

Patient to be given **PEG Information booklet** from ward/Endoscopy. This should include list of “red flag” symptoms of complications needing medical attention.

## APPENDIX 6 – POST PEG PROTOCOL

Nil by PEG and nil by mouth for the first 4 hours to reduce risk of peritonitis

4 hours post insertion of PEG, if the abdomen is soft & there is no discomfort; flush tube with 50 ml sterile water using a purple 60ml enteral syringe.

If patient experiences problems, wait 3 hours and then flush with 50 mls of sterile water. Repeat as necessary.
**If patient has severe pain post procedure, pain on flushing tube, fresh bleeding or external leakage of gastric contents seek urgent medical advice.**

If patient tolerates this flush and there are no signs of leakage around PEG site.
**Indication of patient tolerance:**

- **No abdominal pain**
- **No distension**
- **No vomiting**
- **No leakage from PEG site**

- ☐ **The Doctors should prescribe Thiamine/Pabrinex, Soluble Forceval & Co-strong B vitamins according to Refeeding guidelines for those patients who are at high risk of refeeding syndrome.**
- ☐ **Commence feed as per Dietitians regimen.**
- ☐ If no regimen available but patient is to use PEG for feeding: start sterile water at 50mls/hr x 10hr or flush with 50ml sterile water every hour x 10 hrs unless able to take fluids orally. Contact Dietitian for regimen
- ☐ If patient is not using PEG straight away, nurse to teach patient to flush tube daily - with 50ml sterile water on the ward or freshly drawn tap water at home.

## APPENDIX 7 – NURSING CARE POST PEG INSERTION

*Please attach patient sticker here or record:*

*Name:……..*

*NHS No:* ☐☐☐☐☐☐☐☐☐☐

*Hosp No:* ☐☐☐☐☐☐☐☐☐☐

*D.O.B: ……...*

*Male* ☐ *Female* ☐

# Nursing Care Post PEG insertion

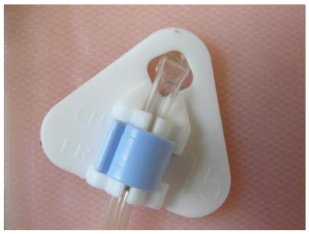
| Immediately Post Insertion Care | Signature/Date/Time |
|---|---|
| Ask patient/ carer to (if able) and observe for signs of pain, fresh leakage or bleeding around the stoma site. **If there is pain on feeding, prolonged or severe pain post procedure or fresh bleeding or external leakage of gastric contents: Stop any feed/medication delivery and seek senior medical advice urgently.** | |
| If the patient is going home within 72hr of the procedure ensure the patient/carer is aware that if there is pain on feeding, prolonged or severe pain post procedure or fresh bleeding or external leakage of gastric contents to stop any feed/medication delivery and contact their GP**.** | |
| Observations including PARS half hourly for 2 hours or until stable, patient alert & orientated and haemodynamically stable. Then 4 hourly obs until discharge home | |
| Nil by PEG and nil by mouth for 4 hours post procedure | |
| 4 hours post procedure, flush the PEG with 50ml of sterile water and follow the PEG starter regimen | |
| The external fixation triangle should not be moved for the first 72 hours - check that it is approximately 1cm from the skin. If it is too tight or too loose seek senior advice to move fixation plate to correct position. | |

| Routine Daily Care | Signature/Date/Time |
|---|---|
| Clean stoma site daily using sterile saline and aseptic technique for the first 14 days (leave triangle fixation plate in place for first 72 hours but after then it can be released to allow thorough cleaning – ensure it is returned to its original position 1cm from the skin). | |
| Clean the end adapter as needed | |
| During the first 14 days, cover stoma with waterproof dressing during bath/shower. After 14 days stoma can be cleaned with un-perfumed soap and water and left exposed. | |
| Observe stoma site for signs of infection e.g. inflammation and pus. Send swab to microbiology for culture and sensitivity and inform Infection Control as appropriate. | |
| If exudate is present a suitable dressing may be required. Selection of dressing will be dependent on stoma site assessment and refer to Trust Wound Dressing Guidelines. | |
| 2 weeks post PEG insertion, begin to advance and rotate the tube 360 degrees daily. | |

## APPENDIX 8 – FREKA PEG DAILY CARE PROCEDURE

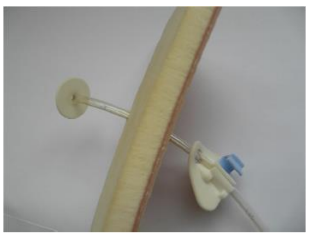
This procedure should start from day 14 and be carried out daily to prevent Buried Bumper syndrome.

### FREKA PEG DAILY CARE PROCEDURE



- Wash your hands thoroughly with soap and water.
- Clean the external plate with mild soap and water.
- Observe stoma site daily for leakage, swelling, redness or inflammation – report any problems.

- Open the fixation catch.
- Detach tube from groove in fixation plate.
- Move the plate away from the skin.
- Clean tube and stoma area and the underside of the plate and dry.



- Push the tube 2-3cm into the stomach and rotate (very important to make sure the tube is not kinking).
- Gently pull back the tube to feel resistance.

- That's a view on how much you should push the tube into the stomach!

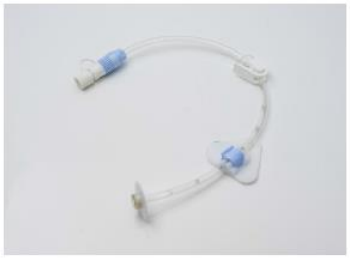
- Place the external fixation plate back to its original position approx. 1cm away from the skin. It should not be too tight or to loose.
- Re-insert the tube into the groove and close the fixation catch. (Check that the external fixation plate is not too tight by placing your fingers underneath).

Fresenius Kabi (2012)

## APPENDIX 9 – HOW TO REPLACE ENFIT ADAPTER END

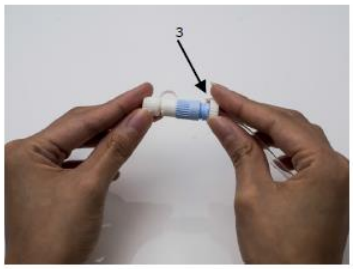
FRESENIUS KABI
caring for life

# How to change the Freka® PEG Connector CH/FR 9/15/20 ENFit®

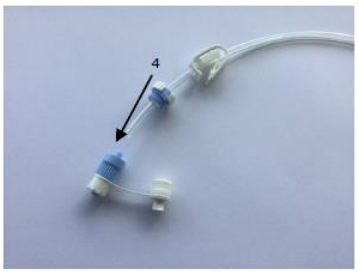


1. Wash and dry hands
2. Close clamp on tube

**Removing old luer lock end:**



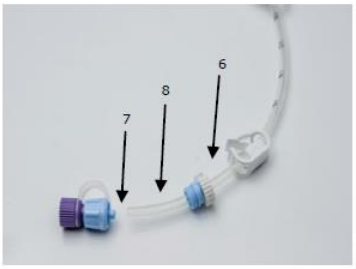

3. Detach the white fixation screw from the new ENFit® end and attach to the coloured hexagonal end (in the picture this is blue for the CH/FR15 Freka® PEG) of the previous luer lock adaptor




4. Unscrew the previous hexagonal end from the adaptor
5. Pull off the pin and remove the previous adaptor from the tube. (It is usually firmly attached, use a finger nail to ease off the pin)

**Attaching the new ENFit® end:**

6. Replace the white fixation screw on to the hexagonal end of the new ENFit® end and slide onto the tube




7. Push the adaptor with pin into the tube
8. If connection is loose or the tube is stretched, trim 1cm off the tube length and replace adaptor
9. Screw onto the fixation screw
10. Remove the white fixation screw to prevent accidental removal of the adaptor end

**Freka® PEG order details:** PEG CH/FR 9 (yellow) 7981385 PEG CH/FR 15 (blue) 7981386 PEG CH/FR 20 (purple) 7981387

## APPENDIX 10– ADMINISTRATING 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?

- Use the appropriately sized SINGLE USE DISPOSABLE oral medication syringe (with purple barrel or plunger) for the volume of medication required
- When using small size syringes do NOT exert more than minor pressure on the plunger to avoid rupturing the tubing or the enteral device
- 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

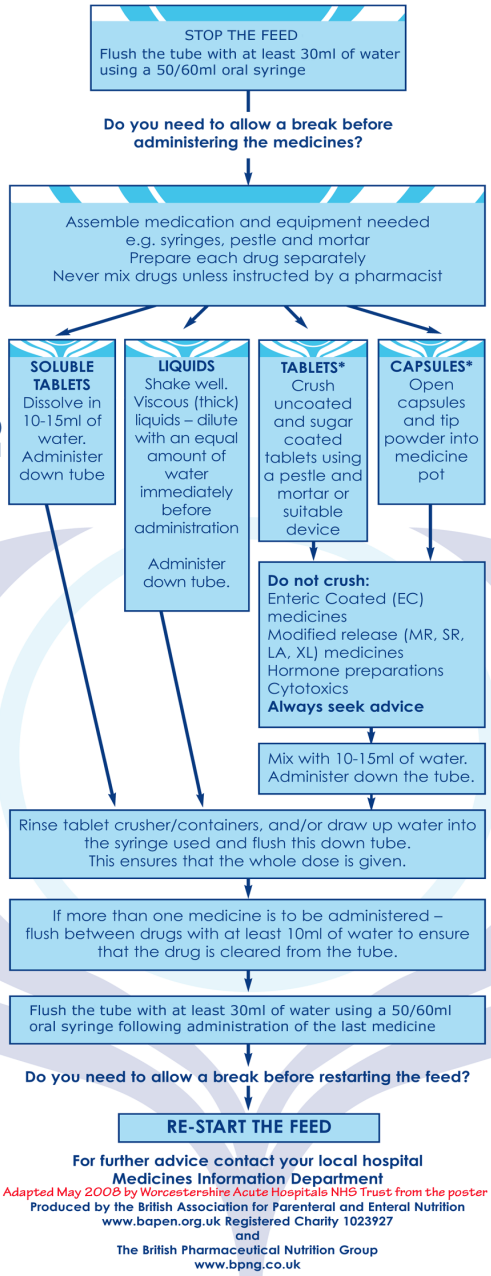
- Inadequate flushing is the most common cause of tube blockage.
- Using the wrong formulation of medication can also cause tube blockage.
- If flushing with warm water does not unblock the tube, seek specialist advice, do not apply excessive force.

### 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 really necessary?**
- **Can an alternative route be used?**




**For further advice contact your local hospital Medicines Information Department**

Adapted May 2008 by Worcestershire Acute Hospitals NHS Trust from the poster

**Produced by the British Association for Parenteral and Enteral Nutrition**
**www.bapen.org.uk Registered Charity 1023927**
**and**
**The British Pharmaceutical Nutrition Group**
**www.bpng.co.uk**

### PREFERRED FORMULATIONS

- Liquids or soluble tablets are the preferred formulations to be administered via a feeding tube.
- Some injections can be given enterally.
- ***Crushing tablets or opening capsules should be considered as a last resort.**

### MEDICINES THAT SHOULD NOT BE CRUSHED

- Enteric Coated (EC): The coating is designed to resist gastric acid to protect the drug and/or reduce gastric side effects.
- Modified/Slow Release (MR, SR, LA, XL): These are tablets or capsules that are specifically designed to release the drug over a long period of time. Crushing these will cause all the drug to be released at once and may cause toxic side effects.
- + Cytotoxics & Hormones: These should not be crushed due to the risks to staff from exposure to the powdered drug.

### INTERACTIONS

Interactions between feed and drugs can be important. Always check with your pharmacist before administering any medication via a feeding tube.
Where possible give dose during a break in the feeding regimen to minimise this.

### Problem Drugs

- **Phenytoin, Digoxin and Carbamazepine:** Blood levels may be affected by feeds, these should be checked regularly. It may be necessary to increase the dose.
- **Antacids:** The metal ions in the antacids bind to the protein in the feed and can block the tube. Consider using alternative drugs.
- **Penicillins:** Feed may reduce the absorption, a higher dose may be needed. If possible stop feed 1 hour before and 2 hours after administration.
- **Other antibiotics:** Levels of antibiotics such as ciprofloxacin, tetracyclines and rifampcin can be significantly reduced by feed.
- Consider other alternatives or increase doses.

**(This list is not exhaustive).**

Originally Sponsored by Educational Grant from Baxa Ltd, Fresenius-Kabi Ltd, Merck Gastroenterology, Nutricia Clinical Care, Rosemont Pharmaceuticals Ltd, Tyco Health Care.

## APPENDIX 11 - WORCESTERSHIRE ACUTE HOSPITALS NHS TRUST

## CHECKLIST FOR DISCHARGING A PATIENT ON ENTERAL FEEDING

| | NURSING STAFF | Initials |
|---|---|---|
| 1) | Inform Dietitian of EDD and place of discharge | |

| | DIETITIAN | |
|---|---|---|
| 1) | If not being discharged within Worcestershire liaise with their local Dietitians. | |
| 2) | Obtain **consent** to pass on patient details to Homeward. | |
| 3) | Organise **training** for carers/patient on use of equipment. | |
| 4) | Confirm date of training …… Confirm training completed. | |
| 5) | Write to GP **re prescriptions** for feed, confirming if NBM and if feed meets full nutritional and fluid needs. | |
| 6) | **Register** patient on Homeward for ongoing supplies equipment. | |
| 7) | Provide **Homeward feeding pump and drip stand** if required for feeding. | |
| 8) | Provide community feeding **regimen** for patient/carers with contact details and a texture modified diet sheet if needed. | |
| 9) | Confirm **discharge plan** is in place to Ward Manager for Nursing staff to organise TTOs from Ward stock. | |
| 10) | Transfer care to community dietitians/GP. | |

| | NURSING STAFF CRITERIA FOR DISCHARGE WHEN MFFD | |
|---|---|---|
| 1) | **Feed**: Ensure 7 day's supply available at time of discharge.<br>Ensure feed added to EDS prescription list. | |
| 2) | **Equipment**: Provide 7 day's supply of giving sets and 60ml enteral syringes compatible with feeding tube. | |
| | For those on NG/balloon gastrostomy/RIG: pH indicator and spare tube | |
| 3) | **Regimen** Check patient has feeding regimen provided by dietitian This includes contact numbers for Homeward Nurse, pump advice line and Community Dietitian. | |
| 4) | **Training** Confirm patient / carer has been taught how to administer feed. | |
| 5) | Check patient / carer knows how to **care for PEG site** to prevent buried bumper and infection and prevent tube from blocking by flushing. | |
| 6) | Check patient has PEG booklet. | |
| | For NG/NJ/Jejunostomy feeding tube: appropriate booklet for tube care | |
| 7) | **Oral** Check yellow swallowing recommendations bed sign is sent with patient on discharge if applicable. | |
| | **If NBM:** confirm oral mouth care plan | |
| 8) | Check patient has a supply of Nutilis Clear if used. Check added to EDS prescription list. | |
| 9) | Ring **carers** to notify of planned date of discharge. | |

## CONTRIBUTION LIST

**Key individuals involved in developing & updating the document**

| Name | Designation |
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| | |

**Circulated to the following individuals for comments**

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| Dr Hudson | Consultant Gastroenterologist |
| Dr Gee | Consultant Gastroenterologist |
| Dr Elagib | Consultant Gastroenterologist |
| Dr Cheung | Consultant Gastroenterologist |
| Dr Rees | Consultant Gastroenterologist |
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| Dr Baker | Consultant Gastroenterologist |
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| Aireen Jalipa | Endoscopy Manager WRH |
| Emma Smith | Endoscopy Manager AH |
| Catherine Ball | Specialist Nurse Head and Neck Ward |
| Chantelle Chadwick | Ward Manager ASU |
| Nuno Ribiero | Consultant Stroke Medicine |
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| Heather Gentry | Infection Control |

**Circulated To The Following CD's/ Heads Of Dept For Comments From Their Directorates / Departments**

| Name | Directorate / Department |
|---|---|
| Morag Inglis | Speech and Language and Nutrition & Dietetics Team lead |

**Circulated to the chair of the following committee's / groups for comments**

| Name | Committee / group |
|---|---|
| Clare Hubbard | Nutrition Steering Committee |
| | MSC |
| | TME |

**Supporting Document 1 - Equality Impact Assessment Tool**

To be completed by the key document author and included as an appendix to key document when submitted to the appropriate committee for consideration and approval.
Please complete assessment form on next page;

NHS Worcestershire Acute Hospitals NHS Trust

**Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form**
**Please read EIA guidelines when completing this form**

**Section 1 - Name of Organisation** (please tick)

| | | | | | |
|---|---|---|---|---|---|
| Herefordshire & Worcestershire STP | | Herefordshire Council | | Herefordshire CCG | |
| Worcestershire Acute Hospitals NHS Trust | x | Worcestershire County Council | | Worcestershire CCGs | |
| Worcestershire Health and Care NHS Trust | | Wye Valley NHS Trust | | Other (please state) | |

| | |
|---|---|
| **Name of Lead for Activity** | |

| | | | |
|---|---|---|---|
| **Details of individuals completing this assessment** | **Name** | **Job title** | **e-mail contact** |
| | | | |
| **Date assessment completed** | | | |

**Section 2**

| | | | | |
|---|---|---|---|---|
| Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.) | **Title:** Percutaneous Endoscopic Gastrostomy (PEG) Guideline - Adults | | | |
| What is the aim, purpose and/or intended outcomes of this Activity? | See body of document | | | |
| Who will be affected by the development & implementation of this activity? | ❑ | Service User | ❑ | Staff |
| | ❑ | Patient | ❑ | Communities |
| | ❑ | Carers | ❑ | Other _____ |
| | ❑ | Visitors | ❑ | |
| Is this: | ❑x Review of an existing activity<br>❑ New activity<br>❑ Planning to withdraw or reduce a service, activity or presence? | | | |
| What information and evidence have you reviewed to help inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc. | See body of document | | | |

| | |
|---|---|
| Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required) | See body of document |
| Summary of relevant findings | |

## Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. **Please tick one or more impact box below for each Equality Group and explain your rationale**. Please note it is possible for the potential impact to be both positive and negative within the same equality group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

| Equality Group | Potential positive impact | Potential neutral impact | Potential negative impact | Please explain your reasons for any potential positive, neutral or negative impact identified |
|---|---|---|---|---|
| **Age** | | | | |
| **Disability** | | | | |
| **Gender Reassignment** | | | | |
| **Marriage & Civil Partnerships** | | | | |
| **Pregnancy & Maternity** | | | | |
| **Race including Traveling Communities** | | | | |
| **Religion & Belief** | | | | |
| **Sex** | | | | |
| **Sexual Orientation** | | | | |
| **Other Vulnerable and Disadvantaged Groups** (e.g. carers; care leavers; homeless; Social/Economic deprivation, travelling communities etc.) | | | | |
| **Health Inequalities** (any preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies) | | | | |

## Section 4

| What actions will you take to mitigate any potential negative impacts? | Risk identified | Actions required to reduce / eliminate negative impact | Who will lead on the action? | Timeframe |
|---|---|---|---|---|
| | | | | |
| **How will you monitor these actions?** | | | | |
| **When will you review this EIA?** (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation) | | | | |

**Section 5** - Please read and agree to the following Equality Statement

**1. Equality Statement**

1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation

1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.

1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer's etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

| | |
|---|---|
| **Signature of person completing EIA** | Completed on behalf of owner |
| **Date signed** | |
| **Comments:** | |
| **Signature of person the Leader Person for this activity** | |
| **Date signed** | |
| **Comments:** | |

## Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

| | Title of document: | Yes/No |
|---|---|---|
| **1.** | Does the implementation of this document require any additional Capital resources | N |
| **2.** | Does the implementation of this document require additional revenue | N |
| **3.** | Does the implementation of this document require additional manpower | N |
| **4.** | Does the implementation of this document release any manpower costs through a change in practice | N |
| **5.** | Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff | N |
| | Other comments: | |

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval.