Enteral Feeding Policy For Adults with Guidelines

Policy information

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Summary of document:
This policy informs best practice and applies evidence based guidelines to inform all those involved in adult enteral feeding in acute, community and mental health care settings. It does not cover oral feeding by cup, spoon or any other method for delivering food or oral nutritional supplements into the patient's mouth.

Scope:
This document is for use in secondary care, community, mental health and learning disabilities settings to inform best practice in relation to enteral feeding as well as provide a Health Board quality assured document to assist in training Health Board wide. The policy refers to adults aged 16 years and over. It is for use across secondary care, community, mental health and learning disabilities. The policy will be used by registered Dietitians, Nurses, Biochemists, Pharmacists, Doctors, other Allied Health Professionals and Students within the scope of individual clinical competence. Patients discharged home with enteral nutrition will be provided with specific Home Enteral Feeding Discharge Information in line with this policy. Attendance at training sessions for all new and current staff involved with adult enteral nutrition. There is e-learning to support placement of naso-gastric feeding tubes

To be read in conjunction with: (opens in a new tab)

008 Policy to Consent to Examination or Treatment (opens in a new tab)
141 Independent Mental Capacity Advocacy Service Policy (opens in a new tab)
171 Policy for The Use Of Mitts (Hand Control Mittens) in Adult Patients (opens in a new tab)
209 Adult Refeeding Guidelines (opens in a new tab)
259 Mental Capacity Act 2005 Implementation Strategy (opens in a new tab)
300 Insertion Management and Removal of the Nasal Bridal Fixation Device for Naso-enteral Tubes in Adults Policy (opens in a new tab)
419 Advanced Decisions to Refuse Treatment Policy (opens in a new tab)
811 Mental Capacity Act (2005) Practice Guidelines (opens in a new tab)

Patient information:

EIDO leaflet – PEG (opens in a new tab)

Owning group:

Nutrition & Hydration Group – 16.6.2024

Executive Director job title:

Director of Nursing, Quality and Patient Experience

Reviews and updates:

Version no:	Summary of Amendments:	Date Approved:
1	Minor amendments following CPRG discussion	23.09.2014
2	Amendment to 15.9.1 as updated one did not contain full information	27.01.2015
3	Amendment on page 48	20.07.2017
4	Updates to section 6: Making the decision to initiate enteral feeding Amendment to section 7: Nasogastric tube feeding Amendment to section 8: Percutaneous endoscopic gastrostomy feeding Amendment to section 9: Balloon gastrostomy tubes Amendment to section 10: Radiologically inserted gastrostomy tubes Amendment to section 11: Jejunal feeding Amendment to section 12: Administering enteral feed Amendment to section 13: Guidelines for the administration of drugs via enteral feeding tubes Changes to owning group and executive lead Contents page change: Appendix 28 Contents page change: to Appendix 29 Page 15 starter regimen change Page 18: Change to jejunal feeding section	13/01/2022
5	Page 19: Section 13, change regarding patient feeding position Page 27: Change to section on Hypoglycaemia treatment Page 36: New starter regimen Page 38: change to pre gastrostomy assessment Page 12 and 43: Enteral feeding tube incident information Page 49 and 50: change of product	

Keywords
Balloon, blockage, bolus, capacity, consent, dementia, enteral, jejunal, medication, nasogastric, percutaneous endoscopic gastrostomy, positioning, pre assessment, pump, radiologically, servicing, storage, syringe

Glossary of terms

Term	Definition
AHP	Allied Health Professional
BAPEN	British Association for Parenteral and Enteral Nutrition
BDA	British Dietetic Association
BGT	Balloon Gastrostomy Tube
BMI	Body Mass Index
BMA	British Medical Association
CANH	Clinically Assisted Nutrition & Hydration
CRP	C Reactive Protein
CT	Computer Tomography
CVA	Cerebral Vascular Accident
CNS	Clinical Nurse Specialist
DN	District Nurse
DOB	Date of Birth
EBME	Electrical and Biomedical Engineering
HETF	Home Enteral Tube Feeding
IV	Intravenous
LFT's	Liver Function Tests
MDT	Multi-disciplinary Team
MUAC	Mid Upper Arm Circumference
NGT	Nasogastric Tube
PEG	Percutaneous Endoscopic Gastrostomy
PEG-J	Percutaneous Endoscopic Gastrostomy with jejunal extension
PENG	Parenteral and Enteral Nutrition Group
PPI	Proton Pump Inhibitor
RCP	Royal College of Physicians
RD	Registered Dietitian
RH	Residential Home
RIG	Radiologically Inserted Gastrostomy
SALT	Speech and Language Therapist
U+E's	Urea and Electrolytes

Key Points:

- **This policy outlines the Health Board's approach to enteral feeding, the responsibilities of staff in ensuring the safe use of feeding tubes and the administration of nutrition, hydration and medications.**

- **It provides the framework for the pathway for decision making regarding enteral feeding tube insertion, including capacity and best interests decision making.**

- **The enteral feeding pathway considers all aspects of the enteral feeding policy including feeding regimens, infection control, equipment and ancillary use.**

Contents

INTRODUCTION

Definition: Enteral feeding is the use of a feeding tube to access the gastrointestinal tract to provide artificial nutrition using a proprietary liquid feed. This may be required when a person is unable to meet their nutritional requirements orally with food and/or fluids.

Enteral tube feeding is not an emergency procedure and should be carefully planned. This policy and operational guidelines provide guidance to all staff working with adult patients. It will optimise the use of efficient enteral tube feeding as a means of nutrition support and aims to standardise best practice throughout the Health Board. This will ensure that consistent advice and care is given to patients, families and allied health professionals.

POLICY STATEMENT

To ensure evidence-based practice and consistency across the Hywel Dda University Health Board in the management of adults requiring artificial nutrition support.

SCOPE

The policy refers to adults aged 16 years and over. It is for use across secondary care, (including acute and outlying hospitals), community (including own homes and care homes); mental health and learning disabilities settings. The policy will be used by registered dietitians, nurses, biochemists, pharmacists, doctors, other allied health professionals and students within the scope of individual clinical competence.

AIM

The aim of this policy is to:

- develop an enteral feeding policy for adults across Health Board;
- facilitate the collective work of multidisciplinary teams of health care professionals that are committed to improving patient care and promoting evidence-based practice with operational guidelines.

OBJECTIVES

- To co-ordinate a multidisciplinary approach to enteral feeding across Hywel Dda University Health Board based on national guidance, evidence and best practice.
- To ensure a robust approach to decision making in relation to the placement of enteral feeding tubes across Hywel Dda University Health Board.
- To ensure consistency in relation to the management of patients receiving enteral nutrition across the Health Board.
- To provide seamless care to patients and to support care closer to home through implementing the policy within secondary care, primary care, community and mental health services.

MAKING THE DECISION TO INITIATE ENTERAL FEEDING

Making the decision to place an enteral feeding tube and to start enteral feeding is discussed in detail as part of the ‘Supporting people who have eating and drinking difficulties’ a report by the Royal College of Physicians (2021).

Assessment Process

<u>Legal and Ethical Implications</u>

The placement of enteral feeding tubes and their use for enteral feeding requires careful consideration of the legal and ethical implications. Enteral feeding is a form of medical treatment.

There are many instances when difficult decisions need to be made whereby the balance of benefits verses burdens must be judged by the clinician and multidisciplinary team. For example, a 90-year-old patient may have suffered a dense stroke diagnosed by a CT scan of the brain, with the future prospect of a short and potentially poor quality of life. A quick decision may be required by the medical team as to whether or not a nasogastric tube should be placed to provide a route of access for nutritional support, hydration and medication. However, the patient's close and caring relatives may wish to allow the patient to die peacefully without further medical intervention.

It is the responsibility of the patient's clinical team to ensure that due regard to legal and ethical principles are considered as part of patient care.

Factors to Consider

Assessment of patients must be carried out on an individual basis. Many factors may influence the decision and include the following:

- Current medical condition
- Quality of life
- Patient/relatives/carers wishes
- Advanced decisions
- Impact of feeding
- Prognosis
- Route of feeding
- Therapeutic aims
- Length of time requirement for enteral feeding

Multi-Disciplinary Team (MDT) Assessment

All patients' being considered for placement of an enteral feeding tube must be referred to the Dietitian.

The decision to place an enteral feeding tube and to commence enteral feeding in hospital or in the community setting, when possible, should be made by the clinician and the MDT in conjunction with the patient and/or relatives/carers. If there are differing opinions on whether enteral feeding or a particular route of feeding is appropriate, then a case conference may help the decision-making process.

The MDT may include, but is not limited to, the consultant, doctor, surgeon, dietitian, clinical nurse specialist nutrition, ward nurse, speech and language therapist, social worker, occupational therapist and members of the mental health and learning disabilities team. The community MDT may include the GP, specialist nurse and members of the complex care team. If feeding is likely to continue following discharge from hospital, then community staff should also be involved.

When to Commence Enteral Feeding

Whilst it is not possible to be explicit about how soon to begin enteral feeding, enteral nutritional support must be considered after 5 to 7 days for all patients who, because of their condition, have not been able to take adequate nutrition orally. When commencing enteral tube feeding it is important to consider refeeding precautions. Refer to Hywel Dda University Health Board Adult Refeeding Guidelines 209.

Explanation of Enteral Tube Feeding

A full explanation of the enteral tube placement and feeding process must be given to the patient and/or relatives/carers. Appropriate literature must be given to assist the decision-making process. 'EIDO' Patient Information on percutaneous endoscopic gastrostomy (PEG) feeding literature can

be obtained by contacting the Dietetic team/CNS Nutrition. Patients, relatives and carers should have an open opportunity to request more information and further explanation as necessary to make an informed decision.

Documentation of the Decision-Making Process

All aspects of the decision-making process must be documented in the patient's medical notes. This must include:

- What was the decision made
- Where and when the decision was made
- Why the decision was made (rationale)
- Who was involved in making the decision

Reference must clearly be made to other factors in decision making that are appropriate to individual cases such as advanced directives, the patient's mental capacity, advocacy arrangements, risk assessments, professional conflict in decision making and how this is overcome i.e. best interest decisions etc.

Relevant assessments which have influenced the decision should also be documented e.g. swallowing assessment, nutritional assessment.

Any views or wishes expressed by the family or carers should also be clearly documented.

If the decision is made not to place an enteral feeding tube or having placed the tube that it should not be used for enteral feeding, then the reasons for this must also be clearly documented.

Pre-Assessment for Gastrostomy Tube Placement

All patients' being considered for placement of a gastrostomy tube must be referred to the Dietitian and CNS Nutrition.

When the MDT is considering if gastrostomy placement is appropriate, a gastrostomy feeding pre-assessment should be conducted and documented using the 'Pre-Gastrostomy Assessment Form' to support the decision-making process, whether in secondary care or in the community (See Appendix 5). The results of the pre-assessment should be discussed with the referring consultant/GP to inform the decision-making process.

If the decision is made to proceed with gastrostomy placement the patient's Physician, Surgeon or GP should then make a referral to the endoscopy Physician responsible for gastrostomy tube placement.

Consent and Capacity

Adults with Capacity

Adults (aged 16 and over) with capacity must provide their written consent to enteral tube feeding before it can be administered. The patient must be provided with full information about the procedure so that they can make an informed choice. This must include: the reason enteral feeding is being proposed, the nature of the treatment; the risks and benefits of having/not having the procedure, and any possible alternatives. The patient's consent must be documented on *Form 1: Patient agreement to examination or treatment in the usual way* (see Policy for Consent to Examination or Treatment, 008) (opens in a new tab).

If a patient with capacity refuses to give consent to enteral tube feeding then this decision must be respected.

Adults who Lack Capacity

Recommendations of the British Medical Association (BMA) and Royal College of Physicians (RCP) (BMA 2018)

Some adult patients may not have the mental capacity to consent for themselves. In other words they may have an impairment of, or a disturbance in the functioning of their mind or brain (e.g. a disability, condition or trauma) which means that, at the time the particular decision needs to be made they are unable to do one or more of the following:

- understand the information being provided about the need for enteral tube feeding;
- retain the information for long enough to make the decision in question;
- use and weigh up the information in reaching a decision;
- communicate their decision in any way.

Joint guidance produced by the BMA and RCP in the report Clinically Assisted nutrition and hydration (CANH) and adults who lack the capacity to consent, supports doctors in making ethically and legally sound decisions in the interests of patients. The guidance covers decisions to start, restart, continue or withdraw CANH from adult patients in England and Wales who lack the capacity to make decisions for themselves. https://www.bma.org.uk/media/1161/bma-clinically-assisted-nutrition-hydration-canh-full-guidance.pdf (opens in a new tab).

The following key principles form the basis of the guideline:

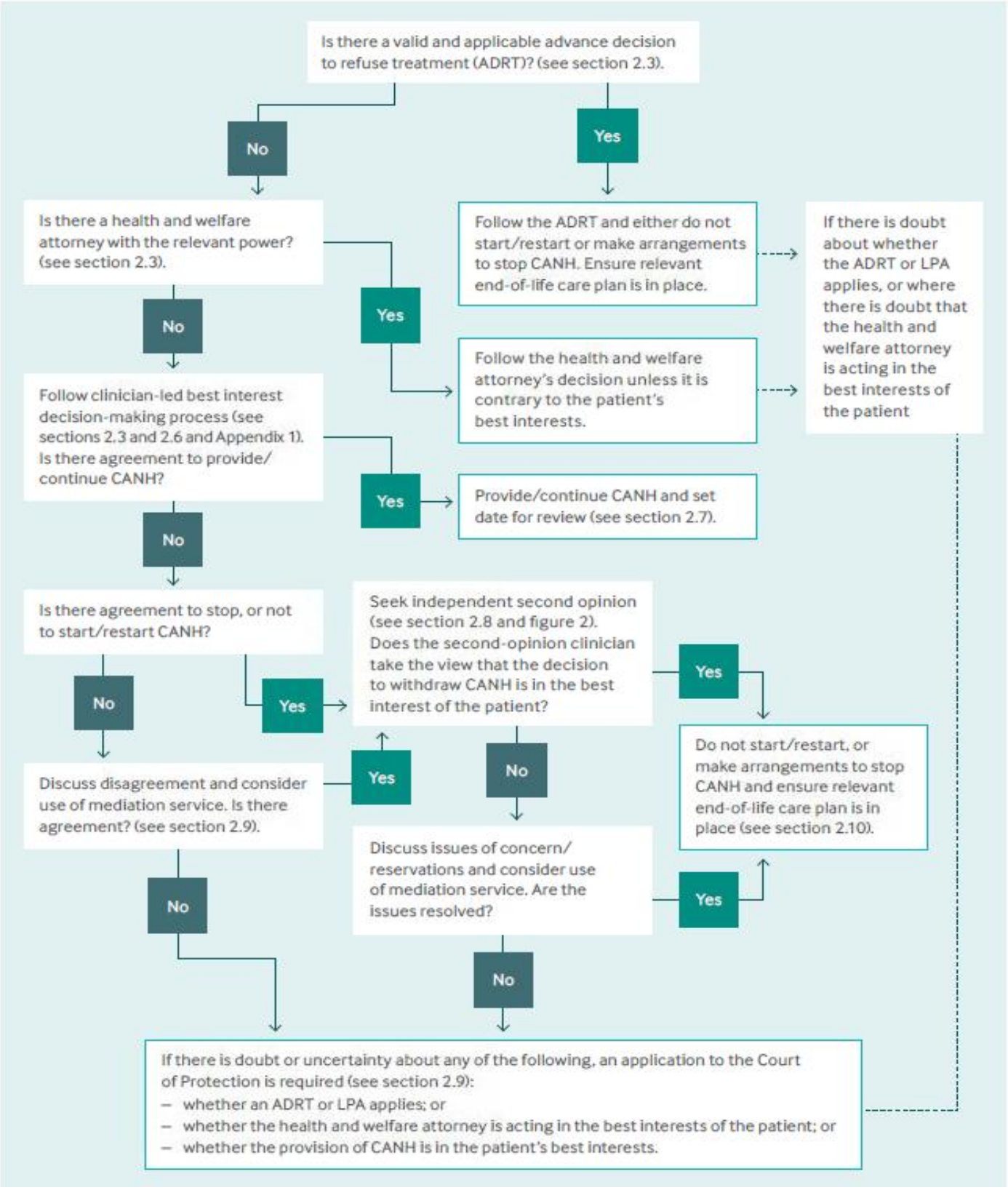
- CANH is a form of medical treatment
- CANH should only be provided when it is in the patient's best interest;
- decision makers should start from a strong presumption that it is in a patient's best interest to receive life-sustaining treatment, but this can be rebutted if there is clear evidence that a patient would not want CANH to be provided in the instances that have arisen;
- all decisions must be made in accordance with the Mental Capacity Act 2005;
- all decisions must focus on the individual circumstances of the patient and on reaching the decision that it is right for that person;
- there is no requirement for decisions about the withdrawal of CANH to be approved by the Court of Protection, as long as there is agreement upon what is in the best interests of the patient, the provisions of the Mental Capacity Act 2005 have been followed, and the relevant professional guidance has been observed;
- as per GMC guidance, a second clinical opinion should be sought where it is proposed, in the patients best interest to stop, or not to start CANH and the patient is not within hours or days of death.

The flow chart below summarises the decision-making process which should be followed for patients who lack capacity.

CANH (Clinically-assisted nutrition and hydration)

BMA

The decision-making process



Assessing Capacity

If there is reason to doubt the patient's capacity to make a decision about enteral tube feeding, then a formal assessment of capacity must be undertaken and documented. The assessment of capacity must be undertaken by the MDT caring for the patient. Only if the assessment is inconclusive should a second opinion be sought. Further guidance and support in relation to assessing capacity can be found in the Health Board Policy HD259: MCA Implementation Strategy, Health Board Policy HD811: Guidance on the MCA (2005) Practical Guidance, (opens in a new tab). or by visiting the Mental Capacity Act on the Intranet page.

If the lack of capacity to make a decision about enteral feeding is likely to be temporary, or the patient's capacity is fluctuating, a decision needs to be made as to whether it is possible to wait until the patient regains capacity and can consent for themselves, or whether treatment needs to proceed with immediate effect.

If a patient is found to lack capacity to make the decision about enteral tube feeding for themselves, then the decision to proceed must be made in the patients best interests (see section on Best Interest below) unless the patient has made an advance decision refusing enteral tube feeding, or there is someone with the necessary authority who can make the decision on the patient's behalf (see section on Lasting Power of attorney and Court Appointed Deputies below).

Advance Decisions

Some patients may have made an advance decision to refuse enteral tube feeding. If this advance decision is valid and applicable to the situation under consideration then healthcare professionals are legally obliged to respect it.

Where the effect of an advance decision to refuse enteral tube feeding is *likely to lead to the patient's death* then it must be in writing, signed, dated and witnessed. It must also contain a statement that reflects that the patient has understood the serious consequences of the refusal such as 'even if my life is at risk'. If it does not meet with these requirements then an advance decision refusing life sustaining treatment would not be considered valid. For further guidance see Health Board policy HD0419: Advance Decisions to Refuse Treatment Policy (opens in a new tab)..

Advance decisions only relate to refusal of treatment. However, a patient may have also indicated their preferences in relation to receiving enteral tube feeding which, whilst not legally binding, must be considered when making a decision in the person's best interests (see below).

Lasting Power of Attorney (LPA)

Some patients may have granted a LPA to a specific person (attorney) who they wish to make decisions on their behalf in the event that they lose decision-making capacity. If a patient has been assessed as lacking capacity, then health care professionals should make reasonable efforts to ascertain the existence of a Lasting Power of Attorney.

There are different types of Lasting Power of Attorney which confer different levels of decision-making authority. In some cases the LPA may limit the attorney's authority to very specific decisions. It is, therefore, essential that the MDT see the LPA documentation to enable clarity regarding what decisions the attorney can make. If they are unable to produce the documentation, or they have not been given the authority to consent on behalf of the patient, then they cannot give consent for enteral tube feeding and the MDT must proceed in the patient's best interests. If the decision about enteral tube feeding falls within the attorney's authority and the patient lacks capacity then the attorney would be the decision-maker.

Court Appointed Deputies

In circumstances where a person lacks capacity and it is likely that they will lack capacity for future decisions the Court of Protection has the power to appoint a deputy to make decisions for the person. The scope and duration of a deputy's powers are defined by the Court. As with attorneys, MDT must see the Court of Protection documentation so that what decisions the deputy can make are clear. If the decision about enteral tube feeding falls within their authority the deputy would be the decision-maker. If it does not, then the MDT must proceed in the patient's best interests. Deputies cannot make decisions to refuse a treatment considered to be life-sustaining as this would require the authority of the court.

Best Interests

For patients who are assessed as lacking capacity and for whom there is no alternative prior authority that makes the decision on their behalf, then a decision regarding whether or not enteral tube feeding is appropriate should be made in the patient's best interests.

The decision-maker, in consultation with professional colleagues and other people interested in the person's welfare (including family, friends or unpaid carers) should consider a number of factors including:

- the patient's past and present wishes, feelings, beliefs and values
- the clinical judgement around the likely effectiveness of treatment
- the views of relatives and others close to the patient, including any attorney or court-appointed deputy who does not have decision-making authority for this decision.

If there is no-one appropriate for the decision-maker to consult with about a decision in respect of enteral tube feeding and the treatment is considered a 'serious medical treatment' (MCA Code of Practice, paragraph 10.42) then an Independent Mental Capacity Advocate (IMCA) *must* be instructed to represent and support the person. Further information can be found in the Health Board policy HD259 – Mental Capacity Act 2005 Implementation Strategy (opens in a new tab); the Health Board policy HD811 - Mental Capacity Act (2005) Practice Guidelines (opens in a new tab); Health Board policy HD141 – Independent Mental Capacity Advocacy Service Policy (opens in a new tab) or by visiting the Mental Capacity Act Intranet page - (all opens in a new tab)..

If a decision is made that enteral tube feeding is in the best interests of the patient, then *Form 4: Treatment in best interests for patients aged 16 years and over who may lack the capacity to consent to examination or treatment* - must be used to document the assessment of capacity and the details of why enteral tube feeding is in the patient's best interests. Details of the consultation with family or friends must also be documented (see Policy 008 for Consent to Examination or Treatment (opens in a new tab)., for further details). If restraint is required for both tube insertion and/or maintenance of tube feeding, then the use of hand control mittens can be carefully considered (see Policy 171 Policy for the use of Mitts in adult patients – opens in a new tab).

Adults with a Mental Disorder

If a patient is detained and subject to Part 4 of the Mental Health Act (1983) and enteral tube feeding is necessary as part of the treatment of the patient's mental disorder, feeding may be given despite the patient's objections under the authority of the Mental Health Act (1983).

For further guidance seek advice from a senior member of staff, the Mental Capacity Act Lead Officer, the Mental Health Act Manager or the Legal Services Department.

Withdrawing Enteral Feeding

Because enteral tube feeding is considered a treatment, if it is providing no benefit (e.g. if the patient is dying) then it may be discontinued. Where the patient lacks the capacity to consent to such a decision, safeguards provided by the Mental Capacity Act must be followed as part of the consideration of withdrawal of enteral tube feeding.

In ethical terms there is no legal difference between starting and withdrawing treatment. In emotional terms it is more difficult to withdraw a treatment once begun than not to start it at all.

For this reason there can sometimes be a reluctance to commence enteral tube feeding for fear it will be difficult to stop. In such circumstances it may be appropriate to start treatment for a time or period, with the provision that the outcome will be reviewed at the end of a specific time period or earlier if needed, to be stopped, changed or continued as appropriate, (CREST 2004).

End of Life Care

For patients for whom the option to commence enteral tube feeding has been rejected, it may be necessary to consider their end of life care pathway. Guidelines to support this pathway are contained in the All Wales Guidance: Care Decisions for the Last Days of Life (2019) available on the Intranet.

Patients with Dementia and the Use of Enteral Tube Feeding

This topic is discussed in detail in the RCP 2010 report 'Supporting people who have eating and drinking difficulties'. Observational studies on the effects of tube feeding in patients who have dementia are generally of poor quality. In most studies the control group is not adequate, the population is not well defined, and the stage of dementia remains unclear. Studies on the effects of parenteral nutrition are completely lacking. Therefore, existing scientific evidence is inconclusive, and recommendations have to include expert consensus.

Patients with advanced dementia frequently develop eating and drinking difficulties or an indifference to food leading to a reduction in nutritional intake, weight loss and an increased risk of aspiration. This is often associated with the final phase of the disease when it is not possible to understand the patient's wishes. The Alzheimer's Society's view is that 'quality of life, rather than length of life' should be the focus. Data from the British Artificial Nutrition Survey indicate that less than 1% of patients fed with clinical assistance in the community have a diagnosis of dementia. This represents a significant reduction in the number of patients with dementia receiving gastrostomy feeding over the past 10 years. Alternatives to CANH and strategies to support eating and drinking should be carefully evaluated for every patient.

There are different opinions around the benefits of gastrostomy feeding in people with dementia. Several studies have suggested that where dementia is the reason for gastrostomy placement, it does not extend life and is associated with a greater mortality. In a review of gastrostomy placement in dementia, gastrostomy feeding was seldom effective in improving nutrition, maintaining skin integrity, preventing aspiration pneumonia, improving functional status or extending life. There is no good evidence to support gastrostomy feeding in people with advanced dementia. These conclusions are echoed by the European Society of Enteral and Parenteral Nutrition (ESPEN) guidelines on nutrition in dementia. These studies indicate that gastrostomy feeding in advanced dementia should only occur in exceptional circumstances.

FAULTY TUBES

NASOGASTRIC TUBE (NGT)

Nasogastric tubes should only be inserted by clinical staff that are competency assessed using the health board agreed training modules in the correct insertion technique as well as having the knowledge around the process for verifying their position. Competency assessment includes a combination of e-learning and observed/supervised practice.

A fine bore nasogastric tube is a long, flexible, polyurethane or silicone tube that is passed through the nasal passages via the oesophagus into the stomach. It is commonly used for delivery of feed, fluids and medication. Patients must have a functioning gastro-intestinal (GI) tract for insertion of a fine bore NGT.

Indications for Nasogastric Tube Placement

- Inadequate or unsafe oral intake with an accessible GI tract.
- Feeding required for short term use

Assessment for Nasogastric Tube Feeding

Prior to considering a patient for nasogastric tube feeding please refer to Section 6: making the decision to initiate enteral feeding. All patients being considered for nasogastric tube insertion for feeding must be referred to the dietitian for appropriate assessment and a feeding regimen. If the dietitian is not available refer to Appendix 4 for a nasogastric feeding starter regimen. If you suspect the patient is at risk of refeeding syndrome prior to feeding please refer to Adult Refeeding Guidelines 209 to select an appropriate starter regimen.

Misplaced nasogastric feeding tubes are recognised as a **significant risk for patients** as the tube can be misplaced into the lungs.

In 2011, following reports of patient death and harm caused by misplaced nasogastric feeding tubes, the National Patient Safety Agency (NPSA) issued a Patient Safety Alert. Between September 2005 and March 2010 there were a further 21 deaths and 79 cases of harm, related to feeding through misplaced nasogastric tubes reported.

Contraindications

Conditions which increase the risk of oesophageal perforation or aspiration of gastric contents e.g. GI bleeding, complete intestinal obstruction, uncontrolled vomiting and gastro-oesophageal reflux, oesophageal strictures, existing oesophageal perforation, nasal fracture with bleeds, basal skull fracture, should not have a nasogastric tube placed.

Cautions for Nasogastric Feeding

The following groups of patients are at a high risk of incorrect tube positioning, dislodgement and aspiration. These patients should have a risk-benefit assessment with the aims of the nasogastric tube clearly documented in the patient's notes.

Appropriate specialist advice must be taken if the patient has:

- Maxillo-facial disorders
- Laryngectomy
- Recent radiotherapy to head and neck
- Any disorder of the oesophagus e.g. varices.
- Nasal Continuous Positive Airway Pressure (CPAP)

- Oro-gastric positioning may be indicated following head injury or neuro surgery.
- Are comatose/semi-comatose
- Are ventilated/sedated
- Have recurrent retching/vomiting
- Need to be nursed prone

Nasogastric Feeding Tube Placement and Replacement
All clinical staff who insert nasogastric tubes must be appropriately trained in the procedure and have a full understanding of the risks and complications associated with the placement of NG tubes. For guidelines on nasogastric feeding tube placement including guidelines on obtaining an aspirate, placement guidelines, a nasogastric feeding tube position confirmation record and bedside chart refer to Appendices 1-Appendix 2.

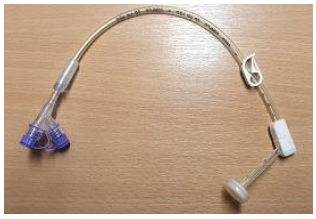
If accidental removal of a nasogastric feeding tube occurs it should be reinserted as soon as possible and within the guidance of the NPSA alert. Out of hours tube insertions are not advisable i.e. between 16:00 and 08:00, unless indicated for essential medication. It may be appropriate to consider alternative methods of preventing accidental dislodgement such as the use of Hand Control Mittens (see 171 The use of Mitts Hand Control Mittens in Adults policy – opens in a new tab).

For patients admitted to mental health units, the Dietitian and CNS Nutrition must be contacted prior to any decisions to place a nasogastric tube.

Caring for a Nasogastric Feeding Tube
For information on caring for a nasogastric feeding tube refer to the appropriate nursing care plan documentation.

Discharge with a Nasogastric Feeding Tube
For all patients being considered for discharge with enteral tube feeding an MDT meeting must be held to ensure that feeding will be managed effectively and to allow a seamless transfer of care into the community. A nasogastric feeding discharge assessment must be completed and documented by the MDT as part of this process, see Appendix: 3, and for the ward discharge checklist see Appendix 11.

PERCUTANEOUS ENDOSCOPIC GASTROSTOMY (PEG)



Gastrostomy feeding tubes are designed for long-term feeding as they can be used to deliver feed, medication and/ or fluid. They may be used to provide total nutrition or as a supplement to oral intake. They are made from polyurethane, placed endoscopically or surgically and can be held in place inside the stomach with an internal bumper. Careful assessment via an MDT is required for all patients considered for gastrostomy feeding to ensure tube feeding is clinically indicated, to prevent potential problems and to ensure feeding using this method of enteral access is in the patient's best interests.

All patients with a gastrostomy feeding tube must be referred to the dietitian for an appropriate feeding regimen.

Indications
- Long-term enteral tube feeding
- Where access via nasal/oesophageal route is not feasible.

Contraindications

- Imminent death
- Mechanical obstruction of gastrointestinal tract
- Trismus
- Gastric outlet obstruction
- Coagulation disorders
- Ascites
- Inability to access stomach either endoscopically or trans abdominally due to previous gastric resection, peritoneal dialysis, pregnancy, portal hypertension with varices
- Active gastric ulcer disease
- Interposition of colon or liver
- A high position of stomach
- Gastritis
- Gastric neoplasm
- Gastric varices
- Peritonitis

Assessment for Gastrostomy feeding

Prior to considering a patient for placement of a PEG tube please refer to Section 6: Making the decision to start enteral feeding. A gastrostomy assessment (see Appendix 5) must be completed to support the decision making process as to whether a patient is suitable for a PEG and to identify and minimise any potential complications post PEG placement.

Post PEG Insertion

All patients post PEG placement require close monitoring. **Patients must be monitored using the Gastrostomy Flow Chart for the first 72 hours, as per NPSA guidance (2010).** (See Appendix 6). This will promote early detection of complications following the procedure and aid a safe recovery. Possible complications can include bleeding, leaking of gastric contents, swelling, pain and tube displacement. All patients will also receive patient information (provided by Dietetics) including recognising potential complications post gastrostomy insertion and what to do in an emergency.

Following PEG insertion:-
Step 1: The patient is to remain Nil by mouth and Nil by PEG for 4 hours after the procedure unless advised otherwise.
Step 2: Commence the feeding regimen devised by the dietitian.

NB: Patients who have placement of a prophylactic PEG (i.e. are eating and drinking but may require PEG feeding in the future) should remain NBM and Nil by PEG for 4 hours after the procedure and then commence the feeding regimen devised by the dietitian alongside a light diet (i.e. soup, jelly, yoghurt) and oral fluids post PEG placement.

Anti-biotics: considerations pre and post PEG

Co-trimoxazole paediatric syrup (240mg/5mL): 20mL (960mg) single dose through the gastrostomy tube following insertion **OR**

Co-trimoxazole paediatric syrup (240mg/5mL): 20mL (960mg) single dose orally two hours before the procedure

If gastrostomy/oral route unsuitable:

Co-trimoxazole (IV) 960mg ≤ 1hour before the procedure.

For MRSA positive patients or patients at high risk of MRSA colonisation:

ADD: Teicoplanin IV (link to guideline) give pre-procedure (0-30 minutes) (see guide below)

https://viewer.rx-guidelines.com/HDUHB/Abx#content,ivKtj9d4g1

Allergy to co-trimoxazole:

Cefuroxime 1.5g IV ≤ 1hour before the procedure

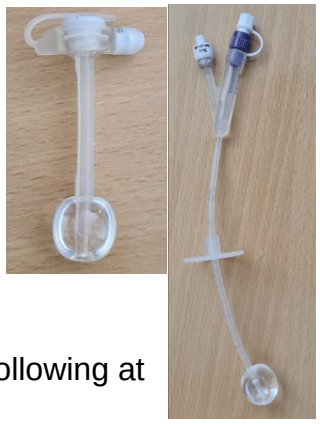
Caring for a PEG

For Information on caring for a PEG refer to the appropriate nursing documentation and care plan. For Nutricia guide on managing stoma complications see Appendix 10.

Discharging a Patient with a PEG

For all patients being considered for discharge with enteral nutrition an MDT meeting must be held to ensure that feeding will be managed effectively and to allow a seamless transfer of care into the community.

BALLOON GASTROSTOMY TUBES (BGT) and LOW PROFILE DEVICES (LPD)



A balloon gastrostomy tube is a feeding tube that is placed directly through the abdomen into the stomach (which was surgically or radiologically placed) held in place by an inflatable balloon. Most balloon retained gastrostomy feeding tubes are inserted to replace an existing PEG or as an initial tube placement for a Radiologically Inserted Gastrostomy (RIG) tube.

An established tract is patient specific but is usually considered established following at least 8 weeks post insertion of an initial tube placement.

For guidance on caring for a patient with a BGT refer to the relevant nursing documentation and care plan. All patients with a BGT must be referred to the Dietitian for an appropriate feeding regimen.

The water in the balloon ensures the tube is held in place. The water volume must be checked weekly, unless otherwise advised, to ensure that there is sufficient water in the balloon to hold the tube securely in place.

Equipment:

- 2 x 10ml syringes (or as per manufacturer's instructions)
- Water (volume as recommended by the manufacturer of the tube.

Instructions:

- Wash hands before and after caring for the BGT tube
- Pre fill a new syringe with water, volume and type as recommended by the manufacturer

- Hold the tube in place during the procedure, ensuring that it remains in the stomach, alternatively, loosely tape it to the skin (as long as no known allergies to tape)
- Attach an empty syringe (in line with manufacturer guidelines) onto the inflation valve of the BGT
- Gently draw back the plunger on the syringe until no more water comes out of the internal balloon
- Check the volume of water withdrawn. Compare with the recommended volume advised for inflation by the manufacturer

a. If the volume of water withdrawn equals the recommended volume, inflate the balloon with new syringe and the correct volume of fresh water

b. If the volume of water in the balloon is 1ml more or less than the manufacturer's recommendation, inflate the balloon with new syringe and the correct volume of fresh water

If you have concerns regarding the integrity of the balloon please contact CNS Nutrition for further advice.

0. RADIOLOGICALLY INSERTED GASTROSTOMY (RIG)

A gastrostomy tube placed radiologically (x-ray guided), held in place by an inflatable balloon. This type of tube placement is not currently inserted in the Health Board and requires a consultant referral to a tertiary centre. However patents may be admitted to the Health Board with a RIG in and/or if their tube has fallen out. Guidelines are outlined below:

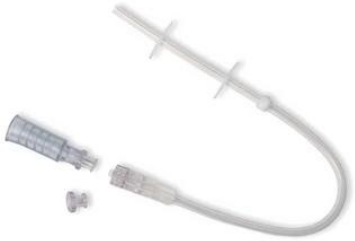
Caring for a RIG

For Information on caring for a RIG please refer to the relevant nursing documentation and care plan. All patients with a RIG must be referred to the Dietitian for an appropriate feeding regimen.

Discharging a Patient with a RIG

For all patients being considered for discharge with enteral nutrition an MDT meeting must be held to ensure that feeding will be managed effectively and to allow a seamless transfer of care into the community.

11. JEJUNAL FEEDING



Jejunal feeding is the administration of enteral feed via a tube that has been placed into the proximal jejunum distal to the ligament of trietz.

This can be achieved using the following methods:

- Nasojejunal (NJ) tube – Suitable for short term feeding (generally less than 28 days). This is placed under direct vision in endoscopy.
- Surgical jejunostomy (Surgical JEJ) – insertion of a tube through the abdominal wall into the jejunum during laporotomy.
- Percutaneous Endoscopic Jejunostomy (PEJ) – insertion of a tube through the abdominal wall into the jejunum under endoscopic guidance.
- Percutaneous Endoscopic Gastrostomy with Jejunal extension (PEG-J) – a tube is passed through the existing gastrostomy tube and pulled through to the jejunum with an endoscope.

Indications

- Poor tolerance of gastric feeding
- Gastro-paresis
- Gastric Atrophy

- Absence of stomach
- Pathology in oesophagus or stomach

Assessment of Jejunal Feeding
Prior to considering a patient for placement of a jejunal feeding tube please refer to section 6 making the decision to start enteral feeding. Ideally the decision to place a jejunal feeding tube should be made by an MDT.

Caring for a Jejunal Feeding Tube
For guidance on caring for a jejunal feeding tube please refer to the appropriate nursing care plan and documentation. All patients requiring jejunal feeding should be referred to the Dietitian for a feeding regimen. If the Dietitian is not available please refer to the jejunostomy feeding starter regimen in Appendix 7.

N.B Gastrostomy tubes are not commonly indicated for jejunal feeding and jejunostomy feeding tubes should be used unless there is discussion and agreement by the medical team in consultation with the Dietitian and CNS Nutrition.

Confirmation of Placement of a Naso-jejunal feeding tube
Initial tube insertion must be confirmed via direct observed placement during endoscopic procedure. If visual confirmation is not possible then x-ray is required to confirm tube placement. After this, there is no need to routinely check tube position by aspiration and pH unless it is considered that the tube has moved into the stomach.

Discharge with a Jejunal feeding tube
All patients being considered for discharge with enteral nutrition should have an MDT meeting to ensure that feeding will be managed effectively on discharge and to ensure seamless discharge and co-ordinated care into the community.

12. ENTERAL FEEDING TUBE DISPLACEMENT

<table>
<tr><th>ENTERAL FEEDING TUBE</th><th>INPATIENT</th><th>COMMUNITY</th></tr>
<tr><td>PEG</td><td rowspan="4">Contact CNS Nutrition team or Gastro team as a matter of urgency.</td><td rowspan="3">• Patient to contact their Company Nurse and CNS Nutrition (Mon-Fri 9-5).
• Out of hours (after 5pm or on weekends) patient to contact Acute Response Team and/or attend local Accident and Emergency.
• Inform Dietetics team if patient is admitted.</td></tr>
<tr><td>BGT/LPD</td></tr>
<tr><td>RIG</td></tr>
<tr><td>NJ</td></tr>
<tr><td>JEJ</td><td>Attend local Accident and Emergency.</td></tr>
<tr><td>NG</td><td>Decision to replace to be made by medical team/Dietetics/CNS Nutrition.</td><td>Patient to refer to their specific discharge pack plan.</td></tr>
<tr><td colspan="3">Emergency out of hours feeding tube ancillaries/supplies are available in a purple box in each hospital in the following locations:
BGH – CDU
GGH – A&E
PPH – AMAU
WGH – A&E</td></tr>
</table>

N.B. For consideration of a routine removal of a gastrostomy tube, a referral must be sent from the GP or Consultant to the Consultant Gastroenterologist to be agreed before the tube is removed.

13. ADMINISTERING ENTERAL FEED

Safe Positioning

Patients must be fed in the most upright position as possible, at least 30 degrees, with the head and shoulders elevated to help reduce the risk of aspiration pneumonia, see Appendix 15

Bolus Feeding

Bolus feeding involves administering a prescribed volume of feed in a specified dose at a specified time normally via a syringe directly into the enteral feeding tube. Bolus feeding is not advised for patients receiving jejunal feeding. For guidance on administering Bolus Feeding see Appendix 12.

Pump Feeding

Pump feeding involves administration of enteral feed via an enteral feeding pump. For guidance on Administering Pump Feeding see Appendix 13.

Patients at HIGH Infection Risk

See Appendix 9.

Enteral Feeding Pumps and **EBME Remit**

- If the enteral feeding pump is faulty or requires testing contact local EBME.
- All new pumps should be checked and catalogued by EBME before being used in a ward setting.
- EBME hold no responsibilities for feeding pumps within the community setting.

Hand washing and Personal Protective Equipment

Effective hand decontamination must be carried out at all times. Wherever possible pre-packaged, ready-to-use feeds should be used in preference to feeds requiring decanting, reconstitution or dilution. The Health Board has a contract for sterile and pre-packaged enteral feeds which are ready to hang. The feeding system selected should require minimal handling to assemble and be compatible with the patient's enteral feeding tube. Please contact the Dietitian or CNS Nutrition should any concerns arise regarding the compatibility of the patient's feeding system with their enteral tube. (NICE guidelines: CG139 2012 updated 2017).

Preparation and Storage of Feeds

- Feeds should be stored in a clean dry area and as per manufacturer's guidance.
- Always ensure the feed is in date prior to administration.
- Always check there are no signs of 'feed curdling'. Please contact the Dietitian or CNS Nutrition if you have any concerns.
- Always check that the feed name corresponds with the regimen advised by the Dietitian in the patient's prescribed feeding regimen.
- Feed and equipment should be prepared on a clean washable surface.

<u>Non-Sterile Reconstituted Feeds (modular, diluted or modified feed)</u>

- Feeds should be mixed using freshly opened sterile water (hospital)/ cool boiled water (community).
- Feeds should be prepared using a no-touch technique.
- Any feeds pre-prepared in hospital must be clearly labelled with the patient's details and dates of preparation and expiry.
- Feeds that are stored in the refrigerator should always be removed 30 minutes prior to administration to allow time for the feed to reach ambient temperature.
- All equipment/utensils used should be sterile or heat disinfected (dishwasher).

Feed Hanging Times

- Sterile pre-packaged feeds can be hung for a maximum of 24 hrs.
- Non-sterile feed (including modular diluted or modified sterile feed) decanted into a sterile reservoir can be hung for a maximum of 4 hours.
- Under no circumstances should feed be added to sterile reservoirs once feed preparation has been completed and feed is hanging as it increases the risk of infection.

Interruptions to Feeding (hospital)

- In the healthcare setting, if feeding is interrupted the disconnection of the giving set from the feed should be a last resort.
- If disconnected, a new giving set will be required each time.
- Should disconnection be unavoidable it is essential that the patient's feeding tube is flushed with water (as advised on feeding regimen) at the time of disconnection.

Interruptions to Feeding (community)

- For patients in their own home deemed to be at high risk of infection as defined by the Risk Assessment (Appendix 9), if feeding is interrupted and the giving set is disconnected from the feed a new giving set should be used each time.
- For patients in their own home who are not deemed to be at an increased risk of infection and feed is interrupted and giving set is disconnected from the feed it is essential that the patient's feeding tube is flushed with water (as instructed on the feeding regimen) at the time of disconnection and the cap replaced on the feeding tube until the necessary time when the feed is reconnected to the patient.

Safe Use of Enteral Feeding Equipment

Enteral Feeding Pumps

Enteral feeding pumps should be regularly serviced and maintained following manufacturer's instructions and cleaned after every use with a detergent wipe or with detergent and water. Feeding pumps should be routinely serviced as recommended by the manufacturer.

Enteral Feeding Syringes

- In the acute setting (including outlying hospitals) new single use purple enteral syringe must always be used each time the tube is flushed or the patient receives medication.
- Patients fed via the jejunal route a new single use purple enteral syringe must always be used each time the tube is flushed or the patient receives medication.
- Patients in the community can reuse syringes for up to 7 days providing this has been agreed by the dietitian or further to a risk assessment.

Giving Sets

Giving sets are single use items and should be discarded after each feeding episode. Frequent disconnection of the giving set for intermittent feeding should be avoided.

Feeding Reservoirs

Feeding Reservoirs should be labelled with the time and date when first used and discarded after 24hrs or when empty (not more than 24hrs).

Safe Use of Water

- In the acute setting (including outlying hospitals) sterile water only should be used for flushing all enteral feeding tubes.
- In the community (including own homes and care homes) for patients who are not immunosuppressed freshly drawn tap water is suitable for flushing the feeding tube unless otherwise advised by the Dietitian.
- For those who are immunosuppressed or those with small bowel or jejunal feeding tubes rather than gastrostomy tubes cool boiled water can be used for flushing tubes unless otherwise instructed by the Dietitian or further to a risk assessment.
- For those patients who obtain their water from a well, sterile water should be used instead.

Oral Hygiene

Good oral hygiene procedures established at the start of enteral feeding will prevent the need for high risk dental treatment later.

Good oral care is important for reducing and eliminating the bacteria in the mouth that may present **a serious risk of aspiration pneumonia.** For further guidance on oral hygiene for patients please refer to the policy: Oral Hygiene 331.

14. GUIDELINES FOR THE ADMINISTRATION OF DRUGS VIA ENTERAL FEEDING TUBES

Introduction

Administering medication via an enteral feeding tube requires thought and exercise of clinical judgement.

Most medicines are not licenced for administration via an enteral feeding tube, crushing tablets, opening capsules 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.**

Initial Considerations:

- Is the medication essential?
- Can an alternative route be used?
- Is there a more suitable formulation within the same therapeutic class?
- Is the oral route available for medicines administration?
- What is the size and site of the feeding tube?

Check with Pharmacy regarding medications that may be contra-indicated with feed.

In general the preferred formulations are liquid solutions and soluble tablets. Crushing tablets, or opening capsules should be considered as a last resort due to inaccuracies in dosing, lengths of time for preparation and risk of occupational exposure.

Medicines that should **NEVER** be crushed include:

- Modified/extended release tablets
- Enteric coated tablets
- Cytotoxics
- Hormones

<u>NMC Nursing and Midwifery Council Statement on Crushing:</u>

- Crushing tablets must be done with the agreement of the prescriber.
- The reason for crushing must be clearly documented in the patient record.
- A care plan should identify this intervention.
- It should be monitored and evaluated.
- Any adverse effects should be reported to the prescriber.

Guidance on the Type of Feeding Tube

Firstly the type of feeding tube should be known as some medicines are unsuitable for jejunal administration as this bypasses gastric and duodenal absorption. The route stated on the patient's prescription chart should match the type of enteral tube, for example, nasogastric, percutaneous endoscopic gastrostomy, and nasojejunal.

Guidance on the Type of Drug

Never assume that a drug can be given via a feeding tube. Always consult pharmacy for advice if unsure or refer to the Handbook of Drug administration via Enteral Feeding Tubes or NEWT Guidelines.

Some drugs interact with enteral feed which can significantly affect their absorption, please seek advice from a pharmacist regarding drug and nutrient interactions. It is often necessary to suspend feeding for a few hours prior to and after administration of these medications in order for them to be absorbed effectively.

Administering Medication via an Enteral Feeding Tube (BAPEN 2004)

- Can the patient still take 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? (AWMSG Polypharmacy 2014).
- Seek advice from Pharmacy on which medicines can be crushed.

ADMINISTERING DRUGS VIA ENTERAL FEEDING TUBES
A PRACTICAL GUIDE

UNLICENSED ROUTE

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

TUBE TIP POSITION

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

WHICH TYPE OF WATER?

- Check local policy
- The type of water recommended depends on local practice and the exit site of the tube.

SYRINGE TYPE AND SIZE?

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

INFECTION CONTROL AND SAFETY

- Wash hands and wear gloves.
- It is important that exposure to drug powder is kept to a minimum+.

TUBE BLOCKAGE

- Inadequate flushing is the most common cause of tube blockage.
- Using the wrong formulation of medication 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?**

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

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

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

SOLUBLE TABLETS Dissolve in 10-15ml of water. Administer down tube

LIQUIDS Shake well. Viscous (thick) liquids – dilute with an equal amount of water immediately before administration. Administer down tube.

TABLETS* Crush uncoated and sugar coated tablets using a pestle and mortar or suitable device

CAPSULES* Open capsules and tip powder into medicine pot

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

Mix with 10-15ml of water. Administer down the tube.

Rinse tablet crusher/containers, and/or draw up water into the syringe used and flush this down tube. This ensures that the whole dose is given.

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

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

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

RE-START THE FEED

For further advice contact your local hospital Medicines Information Department

Produced by the British Association for Parenteral and Enteral Nutrition
www.bapen.org.uk Registered Charity 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).

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

Water and Fluid Balance

Only **water** should be used to flush feeding tubes and to administer medication.

Please note that the correct administration of drugs via enteral feeding tubes may include a significant volume of water. The fluid volume should be taken into account in any fluid balance calculations for patients on restricted fluid intake or at risk of complications from excessive fluid intake. Consult medical/surgical team.

For Naso-Gastric (NG) tubes: Do not attempt to unblock the feeding tube. Contact CNS Nutrition/Dietitians or follow guidance in your care plan/discharge pack.

Tube Blockage (NOT Applicable to NG Tubes)

In order to prevent a feeding tube from blocking it is essential to flush the tube adequately after feeding or administering medication as advised by the dietitian/CNS Nutrition.

If a feeding tube occlusion should occur follow the procedure as outlined below. If the occlusion does not clear seek advice from the CNS Nutrition. Never insert anything into the tube to remove the blockage e.g. guide-wire, as this may perforate the tube. Never use acidic solutions e.g. pineapple juice / cola as these can degrade the material of the feeding tube and can also cause the feed to curdle creating further problems.

Equipment Required for Procedure:

- Apron
- Disposable gloves
- 1 Clean dry equipment tray
- Disposable 60ml enteral syringe for flushing the feeding tube
- Solution to unblock the tube; warm water or soda water (available from catering)
- Sterile water to flush the tube
- Eye protection

Procedure to unblock a feeding tube **(This is NOT applicable to NG tubes)**

1. Explain procedure to patient;
2. Wash hands with liquid soap and water, rinse and dry thoroughly. Put on disposable apron and gloves;
3. Put on eye protection and attempt to unblock the tube using warm water. If unsuccessful try 10-15ml of soda water;
4. Using a 60ml enteral syringe draw up 10-15ml of chosen solution and attach the syringe to the enteral feeding tube.
5. Draw back on the syringe to create a vacuum.
6. Tilt the syringe so that the solution is at the nozzle end of the syringe, keeping the suction on the syringe. Release the grip on the syringe plunger and the solution will be sucked down the tube;
7. Repeat if necessary to remove the solution further down the tube. Cap/clamp tube and leave for 30 minutes;
8. Flush tube with 30-50mls of sterile water;
9. If the feeding tube is clear, confirm tube placement and re-commence feeding;
10. If blockage persists contact medical/surgical team or CNS Nutrition.

Monitoring Patients on Enteral Tube Feeds

For guidance on monitoring patients receiving enteral feeding, including troubleshooting and a stoma complications guide refer to Appendix 10.

Administering Enteral Feed for Patients with Diabetes

IF ENTERALLY FEEDING A PATIENT WITH TYPE 1 DIABETES PLEASE SEEK ADVICE FROM THE DIABETES TEAM BEFOREHAND AS THIS GUIDELINE IS MORE APPLICABLE TO TYPE 2 DIABETES

For all patients with Diabetes receiving enteral tube feeding, guidance must be sought from the Diabetes team/Diabetes Specialist nurses/Diabetes Consultant

Oral diabetes medications

These are usually discontinued when a patient is NBM, as they are not usually suitable to be administered via the tube. If poor glycaemic control is observed (levels above 12 mmols) insulin may need to be started if not already on insulin.

Use of IV insulin infusions

These should be minimised - however in certain situations (e.g. commencement and establishing an enteral tube feeds) a variable rate insulin infusion (VRII) may be used initially until full enteral feed is established and insulin requirements calculated, then this can be transferred to a suitable subcutaneous insulin dose.

Enteral Tube Fed Patients:

- Aim is to try and achieve blood glucose levels between 6-12 mmols during enteral tube feeding.
- Monitoring of blood glucose levels is recommended every 4-6 hours unless advised differently or clinical indication to test more frequently.
- For patients with Type 1 diabetes Ketones must be checked if blood glucose levels are greater than 11.1 mmols.
- For patients with Type 2 diabetes, ketones must be checked if blood glucose levels are greater than 16.9 mmols and if negative not to be repeated unless deterioration in condition.
- Before administering insulin alongside an enteral tube feed (especially those with NGT feed) ensure the tube is in the correct position and the feed is fully running **before** administering the insulin.
- If tube feeding is interrupted for any reason, **increase** frequency of blood glucose monitoring and be mindful that IV dextrose might be required to maintain glucose levels if patient is NBM as there will be an extremely high risk of hypoglycaemia.

Continuous pump feeding

The preferred first option for poorly controlled patients with Type 2 Diabetes is either premixed human insulin such as Humulin M3 or Humulin I. Both insulin options should be injected at the time the feed starts, and if necessary at mid-point of feed.

For patients prescribed Glargine (Lantus) or Detemir (Levemir) on admission to hospital receiving continuous enteral tube feeding with blood glucose level more than 12mmols, soluble human insulin such as Actrapid may be administered at the start and if necessary midpoint of feed; or you might consider changing to a mixed human insulin such as Humulin M3 od or bd.

Bolus feeding

Soluble human insulin such as Actrapid should be given at start of bolus feed. You may also require a basal insulin depending on the individual.

Hypoglycaemia
For patients who are unable to take food/fluids orally and who have a hypoglycaemic episode (blood glucose <4mmols) give 1 small container (60ml) of Glucojuice via the feeding tube (contains 15g carbohydrate).

As with all hypos, capillary blood glucose needs to be re-checked after 10-15min and if blood glucose level is still less than 4mmol/l, repeat the above and re-check blood glucose 10-15mins later.

Follow-up treatment needs to be from a slower release carbohydrate. The quantity of feed required by bolus needs to provide 15-20g carbohydrate which is equivalent to **60mls of Ensure Plus Juce**. The feeding tube needs to be flushed well with water as per policy.

Blood Glucose monitoring should continue 4-6 hourly for the next 24-48 hours. A referral to the local Diabetes team/Specialist Diabetes nurse/Diabetes Consultant (if patient in acute setting) or the General practitioner/Community specialist Diabetes Nurse (if patient in Community setting) if hypoglycaemic episodes re-occur.

15. DISCHARGE PLANNING

For guidance on discharging patients requiring enteral nutrition at home or in the community refer to Appendix 11: Enteral Feeding Discharge Ward Checklist.

16. RESPONSIBILITIES

Chief Executive
The chief executive has overall responsibility for ensuring the policy is adhered to with the Health Board

Director of Nursing
To ensure that all relevant Health Care Professionals involved in the care of patients with enteral feeding are trained and supported appropriately.

Nutrition and Hydration Group
The Nutrition and Hydration Group will be responsible for co-ordination and implementation of this policy.

Nursing staff
Nurses are responsible for the safe and effective management of patients who received enteral feeding.

Other Allied Health Care Professionals
Other AHP's are responsible for effective communication to the wider team of the patient's nutrition and hydration needs and working to support those needs in the MDT.

17. TRAINING

Training will be overseen and co-ordinated via the Nutrition and Hydration steering group, practice development leads and Learning and Development department Health Board wide.

18. IMPLEMENTATION

An implementation plan will be overseen and co-ordinated via the Nutrition and Hydration Steering group.

19. FURTHER INFORMATION

National Institute for Clinical Excellence, National Patient Safety Agency, British Association for Parenteral and Enteral Nutrition. Royal College of Physicians, British Society of Gastroenterology. Parenteral and Enteral Nutrition Group.

20. CLINICAL POLICIES

National Institute of Clinical Excellence (NICE):

- Clinical Guideline 32 – Nutritional Support in Adults (2006, updated 2017);
- Clinical Guideline 139 - Infection Control Prevention of healthcare associated infection in primary and community care (2012, updated 2017).

National Patient Safety Agency (NPSA):

- Reducing the Harm caused by misplaced nasogastric feeding tubes in adults, children and Infants (2011);
- Promoting safer measurement and administration of liquid medicines via oral and other routes (2007);
- Harm from flushing of nasogastric tubes before confirmation of placement (2012).

Supporting people who have eating and drinking difficulties (Royal College Physicians 2021)

Clinically-assisted nutrition and hydration (CANH) and adults who lack the capacity to consent. Guidance for decision-making in England and Wales (BMA 2018).

Quality Standard for Nutrition Support 24.

Handbook of Drug administration via Enteral feeding tubes (3nd ed 2015) or NEWT Guidelines (3nd ed 2015)

Health Board Policies:

008 Policy to Consent to Examination or Treatment (2020)
141 Independent Mental Capacity Advocacy Service Policy (2018)
171 Policy for The Use Of Mitts (Hand Control Mittens) in Adult Patients (2023)
209 Adult Refeeding Guidelines (under review)
259 Mental Capacity Act 2005 Implementation Strategy (2019)
300 Insertion Management and Removal of the Nasal Bridal Fixation Device for Naso-enteral Tubes in Adults Policy (2021)
419 Advanced Decisions to Refuse Treatment Policy
811 Mental Capacity Act (2005) Practice Guidelines (2019)

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APPENDIX 1: Decision Making Flowchart for Nasogastric Tube Placement

Decision by the Medical Team to Place NG Feeding Tube / documented in the medical notes

Is nasogastric tube feeding the right decision for this patient?

- Careful assessment of the risks ad benefits by at least two competent HCP, including senior doctor responsible for patient's care.
- Documentation should include signed, dated and timed entry, of the process of initial risk assessment that evaluates the benefits against the risks of introducing a nasogastric tube for the purpose of feeding
- Senior clinical help should be sought if altered anatomy is suspected or the tube insertion has been deemed difficult
- Refer to Enteral feeding policy for more details
- If X-ray is required, please ensure this is requested before 4pm so that it can be interpreted before the on call period.

Is this the right time to place the nasogastric tube and is the appropriate equipment available?

- If there is not sufficient experienced support available to accurately confirm nasogastric tube placement (for example at night) then, unless clinically urgent, placement should be delayed until that support is available, and that the rationale for any decisions made is recorded in the patient's medical notes.
- Placement of nasogastric tubes should not occur at times when there is insufficient support available to accurately confirm placement (insufficient support may not be available at night or out of hours with the exception of ICU).
- If the risk of delay in feeding or administering medication to an acutely unwell patient is considered by the senior team member responsible for that patient to outweigh the risk of interpretation of tube position and commencing feeding at night, then this decision and its rationale must be clearly documented in the patient's medical notes.

Is there sufficient knowledge/expertise available at this time to test for safe placement of the nasogastric tube?

In the following circumstances, patients should NOT be fed unless a pH of between 1 and 5.5 has been obtained and documented OR correct tube placement has been confirmed by a competent person through x-ray and documented:

- Following initial insertion;
- Following episodes of vomiting, retching or coughing spasms (note that the absence of coughing does not rule out misplacement or migration);
- When there is suggestion of tube displacement (for example, loose tape or portion of visible tube appears longer);
- In the presence of any new or unexplained respiratory symptoms or reduction in oxygen saturation.

DOCUMENTATION

- Following insertion, the tube type, size and external length once secured, should be documented by the person who passed the tube.
- The method of testing the tube position must be documented. Each test and test result should be documented on a chart kept at the patient's bedside.

X-ray is used only as a second line test when no aspirate could be obtained or pH indicator paper has failed to confirm the location of the nasogastric tube and that:

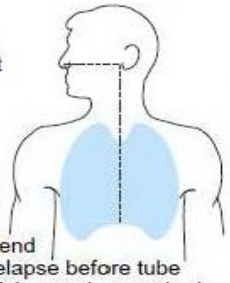
- Request form must clearly state that the purpose of the x-ray is to establish the position of the nasogastric tube for the purpose of feeding. (If there is any difficulty in interpretation the advice of a radiologist should be sought.
- It is the radiographer's responsibility to ensure that the nasogastric tube can be clearly seen on the x-ray to be used to confirm tube position. Any nasogastric tubes identified to be in the lung should immediately be removed whether in the x-ray department or clinical area
- X-rays must only be interpreted and nasogastric tube position confirmed by someone assessed as competent to do so.

Documentation following X-ray should include ('four criteria'):
e.g. NG tube follows path of oesophagus, bisecting bronchi, remains midline to level of diaphragm and deviates to left thereafter. Tip is seen below diaphragm.

Fine Bore Nasogastric Feeding Tube Placement

These guidelines are ONLY for Health Care Professionals who have received HDDUHB nasogastric tube insertion training

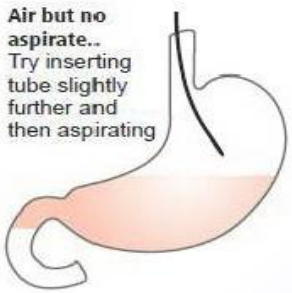
Direction for insertion



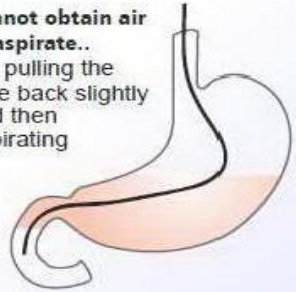
- Remove tube and stylet from package. Close access port. Seat stylet connector firmly into tube connector. make sure stylet connector stays firmly seated during intubation.
- Measure length of tube to be inserted to assure that tip enters gastric region (NEX measurement).
  WARNING: Premeasurement of tubing length is essential.
- Activate lubricant on tip of tube by dipping end in tap water. If more than several minutes elapse before tube insertion is attempted, additional dipping of tip may be required.
- Confirmation of tube position can be done with or without stylet in place. Confirm gastric position by aspiration of gastric contents using a 60ml purple enteral feeding syringe. If it is difficult to obtain a gastric aspirate see solutions to common problems
  WARNING: Confirmation by x-ray may be indicated in high risk patients.
- The internal lubricant of the tube must be activated immediately before the stylet is removed. Open side arm access port (if closed) and flush tube with 10ml of water. Remove stylet immediately.
  WARNING: Tube position must be confirmed prior to flushing tube with water.

Solutions to common problems

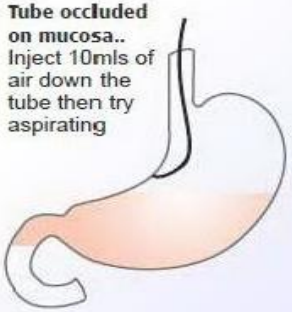
Air but no aspirate..
Try inserting tube slightly further and then aspirating



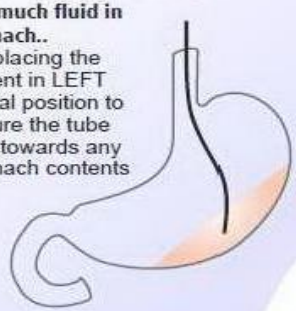
Cannot obtain air or aspirate..
Try pulling the tube back slightly and then aspirating



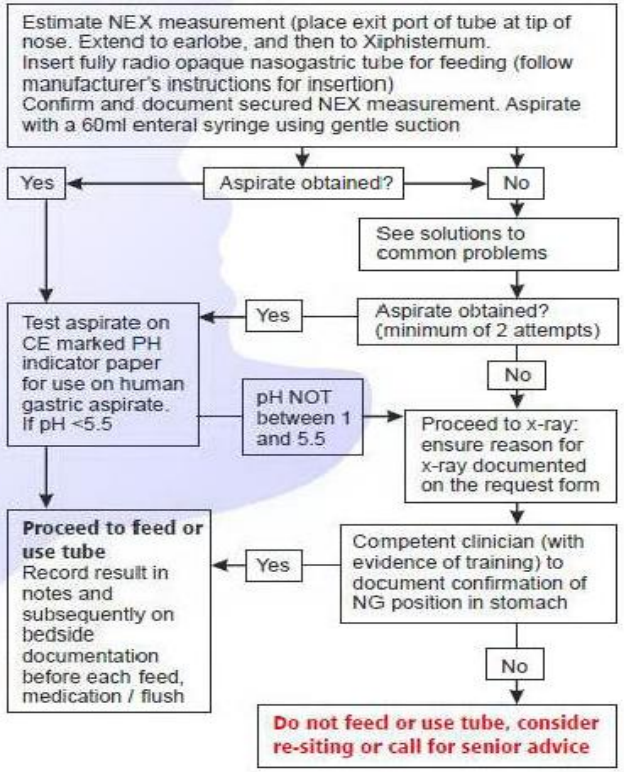
Tube occluded on mucosa..
Inject 10mls of air down the tube then try aspirating



Not much fluid in stomach..
Try placing the patient in LEFT lateral position to ensure the tube falls towards any stomach contents



Hywel Dda University Health Board
Decision Tree for Nasogastric tube placement in adults



Sticker located in tube packaging

INSERTION OF A CORFLO NASOGASTRIC TUBE

LOT No
Date Inserted
Tube Measurement Marker
Proposed Date for Tube Replacement
Inserted by

Verification of nasogastric tip placement by either pH paper or x-ray

pH result (please state level)

Check by
Name Signature
Time Date

x-ray taken: YES/NO (delete as appropriate)
Tip placement confirmed YES/NO
Name Signature
Time Date

5747 03-13

Don't Forget the sticker!

1. **Place the sticker that is in the tube packaging in the patients' medical notes and complete ALL sections.**

2. **If CXR is required, document in the medical notes:**
   - Date x-ray reviewed
   - Time x-ray reviewed
   - X-ray number (sticker will be placed on end of the NG tube in the x-ray dept)
   - Position at where the tube can be seen
   - Who reviewed the x-ray (Dr's name and bleep number)

For further information please see:

- HDUHB Enteral Feeding Policy and Operational Guidelines
- The NPSA 2011 Alert
- HDUHB intranet Nutrition web page 46504

Reference:
CORPAK Corflo NG feeding tube placement.

For further support please contact the CNS Nutrition team

APPENDIX 2: NASOGASTRIC FEEDING BEDSIDE CHART

GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Hywel Dda University Health Board

Addressograph

pH must be 5.5 or below to confirm tube is safe to use

The position of the nasogastric tube should be checked:

- Following initial insertion;
- Before administering each feed;
- Before giving medications (if tube not in use for feed/fluids at the time of administration of medication);
- At least once daily during continuous feeds;
- When there is suggestion of tube displacement;
- Any new or unexplained respiratory symptoms or if oxygen saturations decrease;
- Following episodes of vomiting, retching or coughing spasms.

If you are not able to confirm that the tube is in the stomach it should be removed and reinserted. This should be documented on the nasogastric tube placement bedside checklist.

Date and Time									
pH Result									
Action Taken									
Tube length									
Signatory									
Date and Time									
pH result									
Action Taken									
Tube Length									
Signatory									

APPENDIX 3: Nasogastric Feeding Discharge Risk Assessment and Preparation

TO BE COMPLETED BY THE DIETITIAN AND CNS NUTRITION FOR ALL ADULT PATIENTS PRIOR TO DISCHARGE

GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Hywel Dda University Health Board

Discharging Medical Team and Ward :

Patient demographics

Name:	**DoB:**	**Age:**
NHS number:	**Hospital number:**	
Discharge address:		
Telephone number:	**Mobile number**:	
Expected date of discharge:		

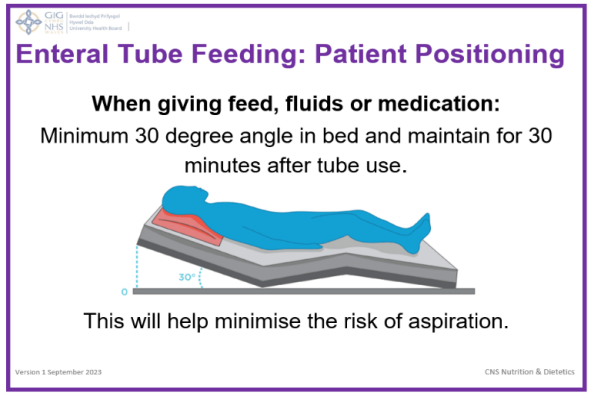
Assess	Comments
Consent given?	
Type of feeding tube in situ?	
Date feeding tube insertion?	
Plan for **planned** replacement?	
Plan for **accidental** removal or blocked tube?	
Plan for review, and by who?	
Who is caring for the feeding tube?	

Patient name:
NHS number:
Hospital number:
DOB:

(Patient addressograph)

APPENDIX 4: NASOGASTIC TUBE FEEDING STARTER REGIMEN

If you have concerns that a patient is at risk of Refeeding Syndrome please refer to the Adult Refeeding Syndrome Policy Number 209 and **do not use this regimen.**

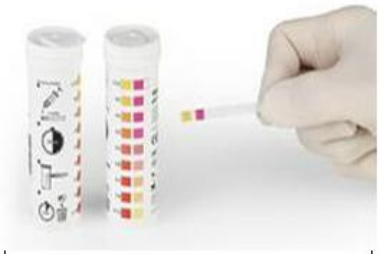


DATE / STAGE	FEED TYPE Check feed label Check date Check for patient allergies	VOLUME (mls)	RATE (mls / hr)	FEEDING PERIOD (hrs)	REST PERIOD (hrs)	Water flushes pre and post feed (mls)
Date: Day 1	Nutrison	1000	50	20	4	50mls
Date: Day 2 and Onwards	Nutrison	1500	75	20	4	50mls

FLUIDS: If patient is on IV fluids they need to be reviewed by the doctor to prevent fluid overload

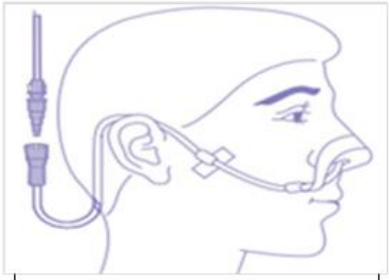
50mls of sterile water at the beginning and end of the medication round, and **10mls** in between each medication given.

Are you trying to place NG tube out of hours (after 4pm)?
If so what is the rationale?

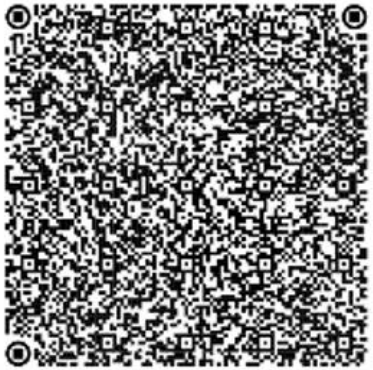


pH **MUST** be recorded for every separate use of the NG tube. pH **MUST** be 5.5 or below. Medications e.g. PPI can affect pH readings, so consider timings.

Ensure the tube is in the correct position and the feed is running before you give any prescribed insulin. Monitor BMs.



NG must be taped to nostril & cheek, dressings reviewed DAILY

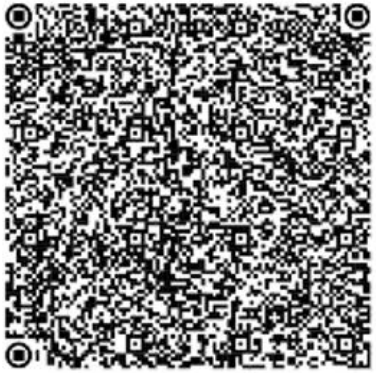


QR code:
Enteral feeding guidelines. Use Tablets.

Feed and giving set should only hang for 24hrs before being discarded.

Do you need training on the pump?
https://www.nutriciaflocare.com/Flocare2020/Infinity.php

Always use a 60ml syringe for gaining aspirate. For all other tasks use a syringe most appropriate for the task.



QR code:
Refeeding guidelines.
Use Tablets.

Required documentation:

Food record chart	☐
Fluid record chart	☐
pH chart	☐
NG care plan	☐
NJ/Jej care plan	☐
PEG care plan	☐
RIG care plan	☐
BGT care plan	☐
LPD care plan	☐
72hr flow chart	☐

Dietitian/CNSN:

Signed……..

Date……..…..

APPENDIX 5: PRE GASTROSTOMY ASSESSMENT FORM

Name: **Address**: **NHS NO**: **Patient ID**: **DOB**:	**Date of referral**: **Referred by**: **Ward / GP Surgery**:

Admission date and Reason:		
Reason for Gastrostomy referral:		
If NG tube not attempted, why not:		
Allergies:		
PMH: •		
Medication: •		
Social Circumstances: •		
Who will support the patient at home to manage their gastrostomy feed:		
	YES	**NO**
Gastrostomy feeding considered for long term >6 weeks rather than short term		
Does the patient have any Respiratory problems?: If so recent FVC Result:		
Can the patient open their jaw properly?		
Can the patient lie flat for 30 minutes?		
Does the patient require NIV to lie flat?		
Is the patient on anticoagulant therapy?		
Warfarin: ☐ Aspirin: ☐ Rivaroxaban: ☐ Clopidogrel: ☐ Apixaban: ☐ Other: ☐		
<u>Please follow BSG guidelines (2021)</u> **NB**: For patients on Warfarin INR needs to be <1.5		
Bloods: FBC, U&Es (taken within past week)		
Has the patient had recent dental extractions? If yes, Gastrostomy tube placement must not be within 7 days of the dental extractions)		
On antibiotics:		

If not on antibiotics:

- Co-trimoxazole paediatric syrup (240mg/5mL): 20mL (960mg) single dose via gastrostomy tube following insertion **OR** orally two hours pre procedure;
- **If oral route unsuitable:** Co-trimoxazole (IV) 960mg ≤ 1hour pre procedure;

- **For MRSA positive patients or patients at high risk of M**
  IV give pre procedure (0-30 minutes);
- **Allergy to co-trimoxazole**: Cefuroxime 1.5g IV ≤ 1hour be

GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Hywel Dda University Health Board

Contraindications to PEG procedure	**YES**	**NO**
Ascites:		
Active Infection (e.g. pneumonia): (if **yes** wait for acute episode to settle)		
Past history of abdominal surgery: (if **yes** please specify)		
Have you ever been informed you are at risk of CJD?		
Capacity and Consent	**YES**	**NO**
Does the patient have the capacity to make this decision regarding the procedure:		
Procedure and rationale explained:		
Complications /risks explained:		
Patient in agreement		
Literature provided (EIDO information leaflet):		

Note: Consider the following if approval is given for Gastrostomy

The patient has capacity: Consent Form 1 will need to be completed. If there is **doubt about the patient's capacity:** complete an assessment of capacity (using Hywel Dda Health Board Assessment of Capacity and Best Interests checklist). If the patient is shown to lack capacity, ensure essential checks are made and make a determination of their best interests, recording the steps and outcome. Consent Form 4 should then be completed. Early MDT is advised to support decision making.

MDT Assessments

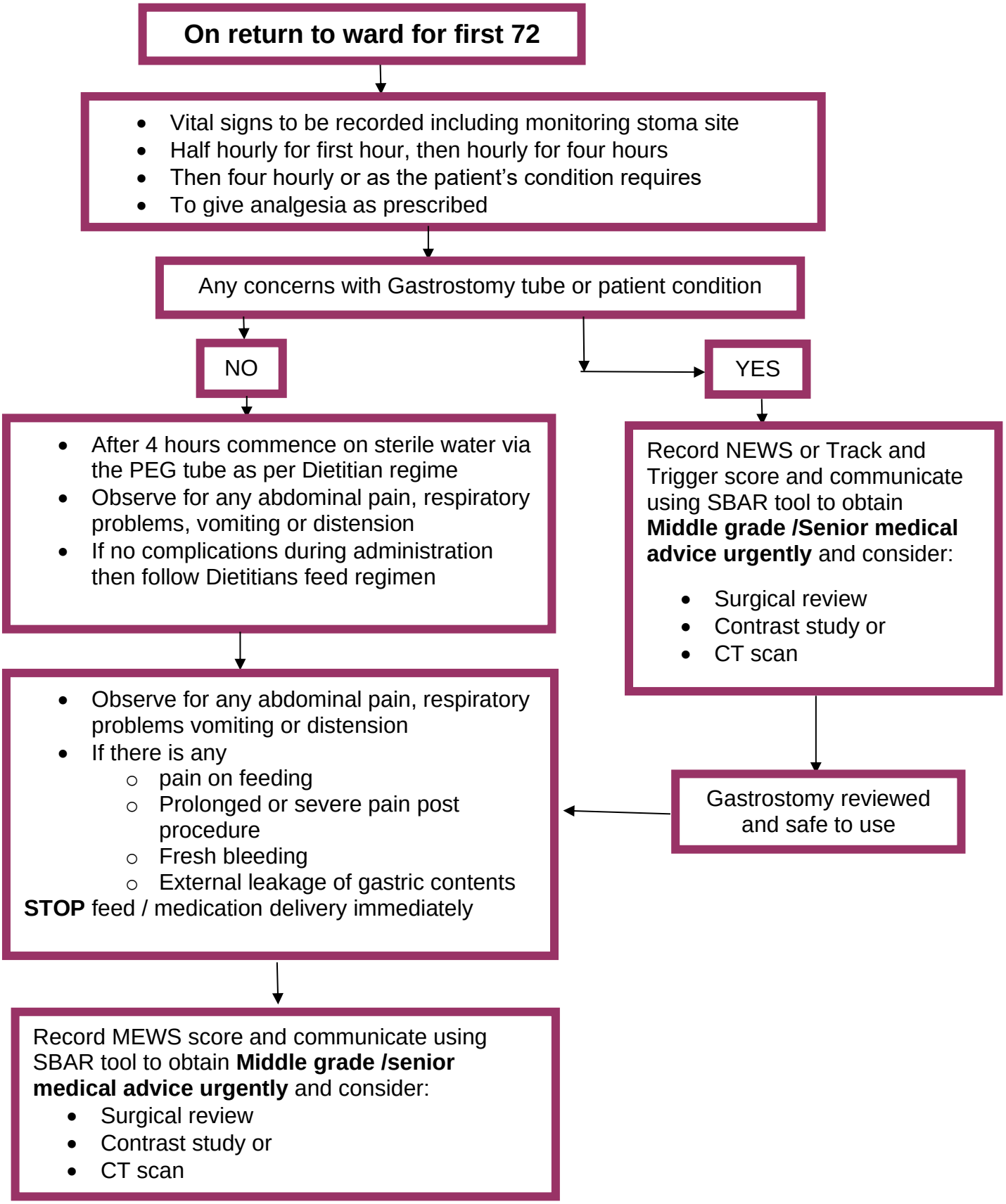
Professional	**Date**	**Recommendations**	**Sign**
Dietitian:			
CNS Nutrition:			
SLT:			

Nursing Assessment:
Temp:…… Pulse:……. BP:…… Resp:…….. SATS:……PSPS:……
Date taken:

	YES	**NO**
Send original to Endoscopy		
Photocopy of this form filed in medical notes		
Case conference indicated?		
Further advice required from Medical/Surgical team?		
GASTROSTOMY AGREED?		

Name:	**Designation:**	**Bleep/Phone No:**
	CNS Nutrition	
	Dietitian	

APPENDIX 6: GASTROSTOMY FLOW CHART

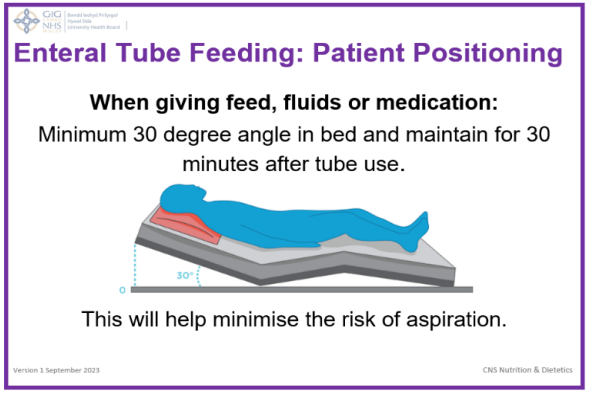


Patient name:
NHS number:
Hospital number:
DOB:

(Patient addressograph)

Appendix 7 JEJUNOSTOMY TUBE STARTER FEEDING REGIMEN

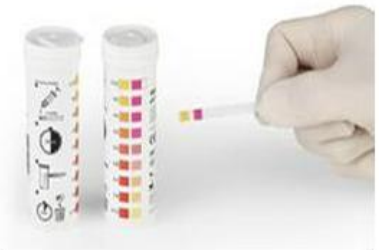
If you have concerns that a patient is at risk of Refeeding Syndrome please refer to the Adult Refeeding Syndrome Policy Number 209 and **do not use this regimen.**



DATE / STAGE	FEED TYPE Check feed label Check date Check for patient allergies	VOLUME (mls)	RATE (mls / hr)	FEEDING PERIOD (hrs)	REST PERIOD (hrs)	Water flushes pre and post feed (mls)
DAY 1 Date:	STERILE WATER	300	25	12	-	50ml
	NUTRISON	300	25	12	-	
DAY 2 Date:	NUTRISON	840	35	24	-	50ml
DAY 3 Date:	NUTRISON	1320	55	24	-	50ml

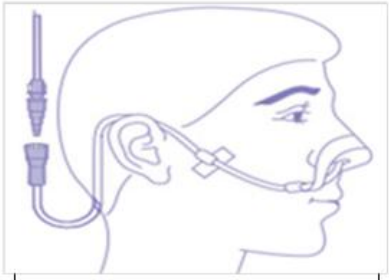
FLUID: **If patient is on IV fluids they need to be reviewed by the doctor to prevent fluid overload**
50mls of sterile water at the beginning and end of the medication round, and **10mls** in between each medication given.

Are you trying to place NG tube out of hours (after 4pm)? If so what is the rationale?

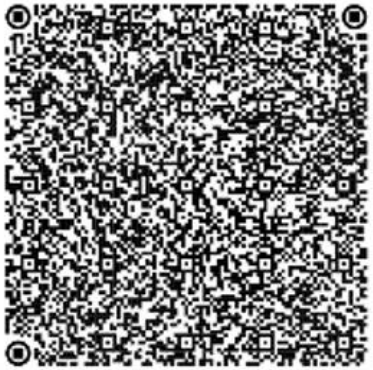


pH **MUST** be recorded for every separate use of the NG tube. pH **MUST** be 5.5 or below. Medications e.g. PPI can affect pH readings, so consider timings.

Ensure the tube is in the correct position and the feed is running before you give any prescribed insulin. Monitor BMs.



NG must be taped to nostril & cheek, dressings reviewed DAILY

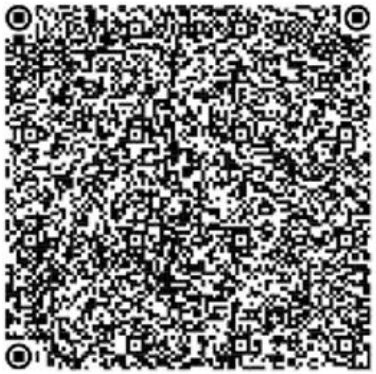


QR code: Enteral feeding guidelines. Use Tablets.

Feed and giving set should only hang for 24hrs before being discarded.

Do you need training on the pump? https://www.nutriciaflocare.com/Flocare2020/Infinity.php

Always use a 60ml syringe for gaining aspirate. For all other tasks use a syringe most appropriate for the task.



QR code: Refeeding guidelines. Use Tablets.

Required documentation:

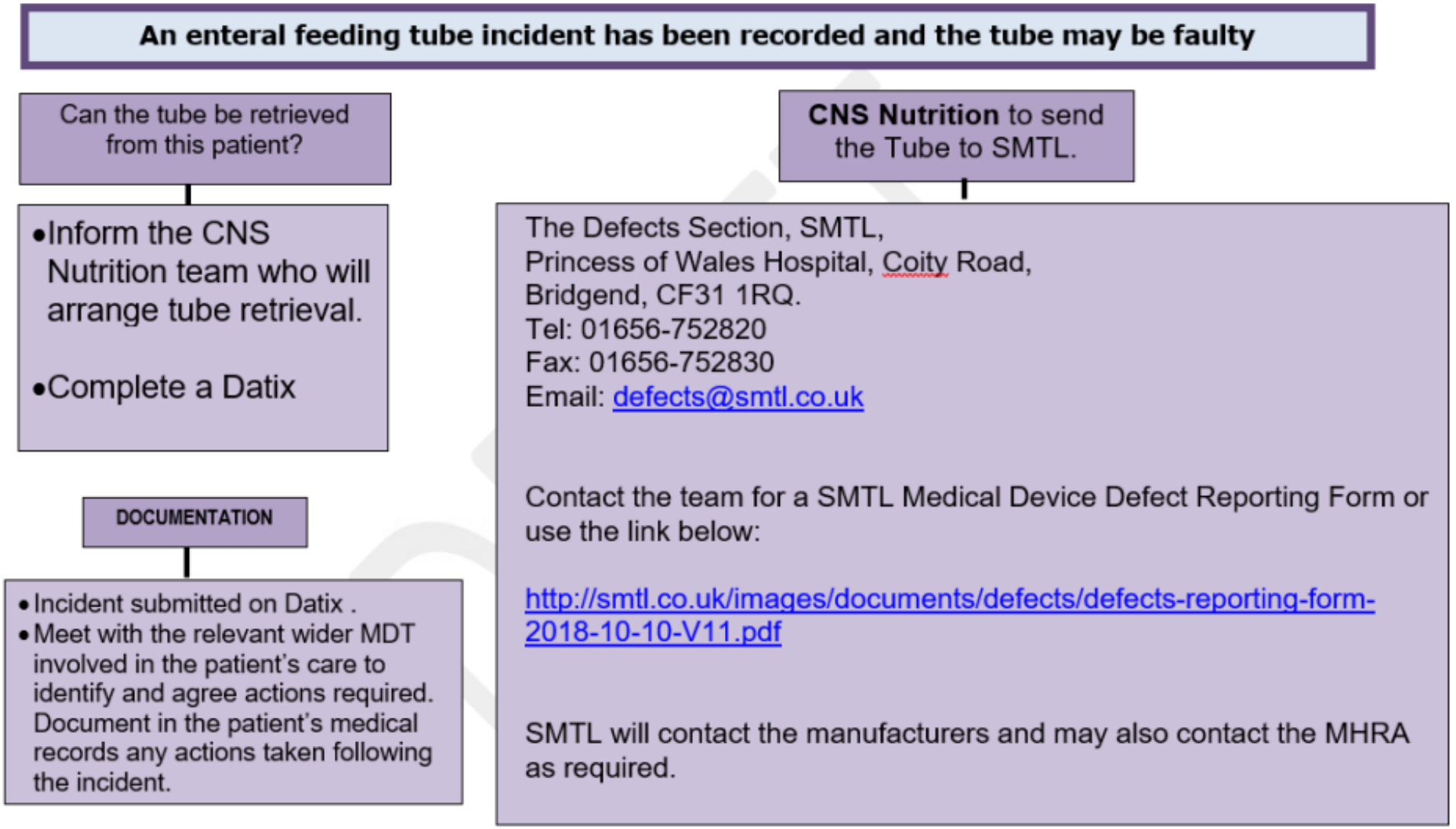
Food record chart	☐
Fluid record chart	☐
pH chart	☐
NG care plan	☐
NJ/Jej care plan	☐
PEG care plan	☐
RIG care plan	☐
BGT care plan	☐
LPD care plan	☐
72hr flow chart	☐

Dietitian/CNSN:

Signed……..

Date……..…..…

Appendix 8 – AN ENTERAL FEEDING TUBE INCIDENT



Appendix 9 - RISK ASSESSMENT OF PATIENTS SUSCEPTIBILITY TO INFECTION

1. Is the patient at a high risk of Infection?
2. Patients in the following circumstances are at a **high risk of infection**.
   - Patients fed by a route that bypasses the stomach e.g. Jejunostomy.
   - Patients prescribed Cytotoxics.
   - Patients who are currently being treated for malignant disease with chemotherapy or generalised radiotherapy and are neutropenic.
   - All patients who have received an organ transplant and are currently on immunosuppressive treatment.
   - Patients who within the previous 6 months have received a bone marrow transplant.
   - Patients who receive a daily dose of 40mg prednisolone for more than one week. (Long course corticosteroids)
   - Patients with evidence of impaired cell mediated immunity for example:-
     - Infection with current symptoms
     - Severe combined Immune Deficiency Syndrome
     - Di George Syndrome
     - Combined Immunodeficiency Syndrome

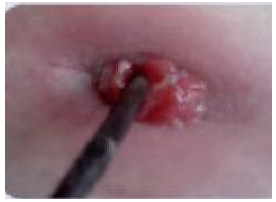
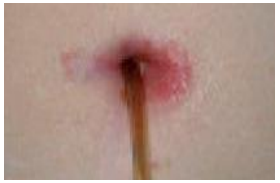
(NICE Clinical Guideline 139: 2012)

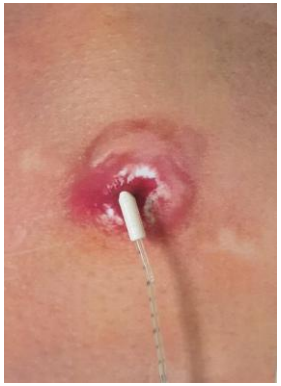
If the patient is considered at high risk of infection:-

- A New enteral syringe should be used each time the tube is flushed or the patient receives medication.
- Cool Boiled or sterile water should be used for flushing the feeding tube and for providing additional fluid if required.
- Non –sterile disposable gloves and disposable apron should be worn during any manipulation of the feeding system.
- Particular attention should be paid to hand-hygiene. Hands should be washed thoroughly with soap and water and dried before donning and removal of gloves and apron.

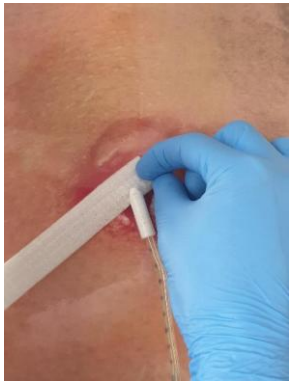
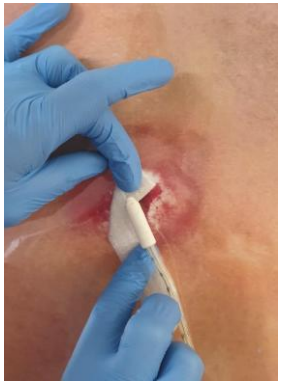
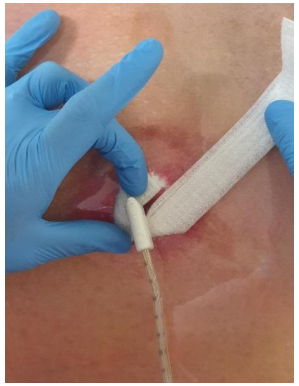
  N.B In some situations patients residing in the community may receive their water from an outside well. If there is any concern regarding the quality of the water cool boiled or sterile water should be advised.

APPENDIX 10 - A Guide to Managing Gastrostomy Stoma Site Complications

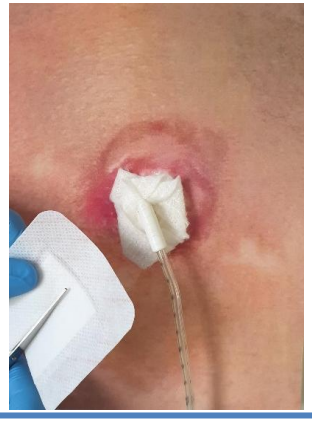
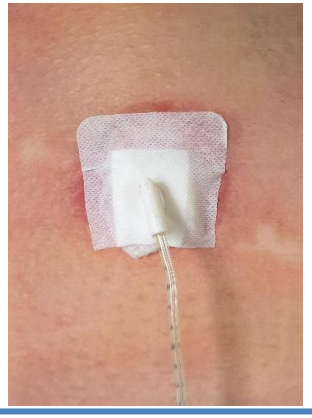
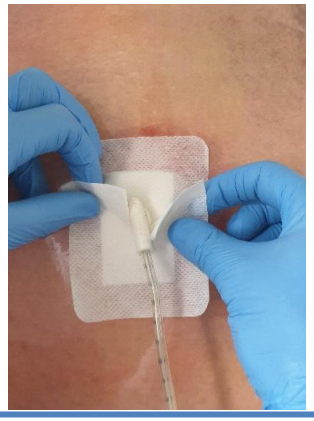
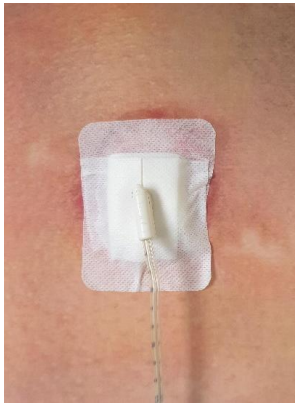
Gastrostomy Stoma Site Complication		Clinical Indications	Action Plan
Granuloma 	• Overgranulation tissue • Occurs when the development of granulation tissue continues after the wound defect has been filled.	• Prolonged Inflammatory response • Uneven mass rising above level of surrounding skin • Cauliflower and dark red shiny like appearance • Oedematous and soft to touch	• Swab the site to rule out infection • Check if the fixator is too tight or too loose • Clean the stoma site
Infection 	• Can be bacterial of fungal • Causes delayed wound healing • Prolonged inflammatory response.	• Raised temerature • Incresed redness • Exudate from the stoma site • Pain • Delayed wound healing	• Swab the site to rule out infection • Clean the stoma site
Peristomal Gastric Leakage 	• Gastric juices leak through the stoma this may cause irritation. • Leakage from stoma site may indicate tube dysfunction, infection of the stoma or a stoma diameter greater then necessary for the tube.	• Leakage of gastric fluid • Redness • Skin breakdown around the stoma • Pain • Itchiness • Enlarged stoma	• Check if the fixator is too tight or too loose • Short term use of PPI to reduced gastric acid • Clean the stoma site and consider using a barrier protection spray



Clean the site


Using Aquacel ribbon create a triangle shape around the gastrostomy tube to sit on the surrounding skin

Cut a slit halfway up the middle of the covering dressing and fit around the gastrostomy tube. Dressing to be changed every 2-3 days. Contact CNS Nutrition team for further advice.

HYWEL DDA UNIVERSITY HEALTH BOARD

APPENDIX 11 – GENERIC TUBE FEEDING DISCHARGE WARD CHECKLIST

Patient name:
NHS number:
Hospital number:
DOB:
(Patient addressograph)

GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Hywel Dda University Health Board

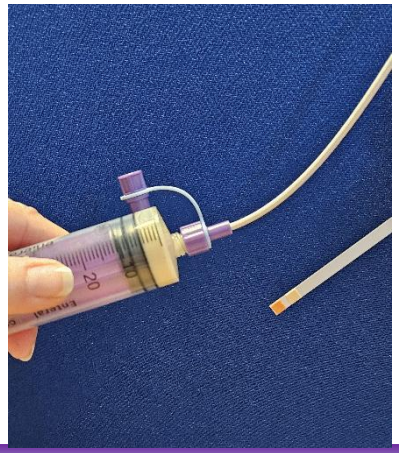
GENERIC TUBE FEEDING DISCHARGE WARD CHECKLIST

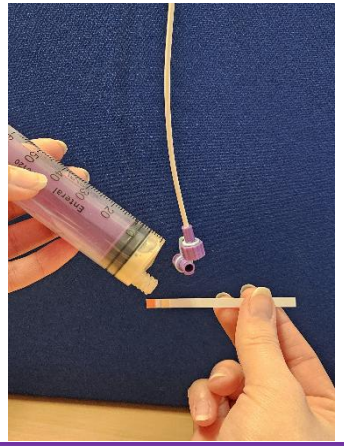
*(If patients are being discharged home or to a nursing home, please **check** that the family/ carers/ staff have received **all** relevant and recent training with regards to tube feeding.)*

Checklist	Date	Signed
Dietitian informed **5 working days** prior to discharge		
Enteral feeding Training and education requirements met (discuss with CNS Nutrition and Dietitian) • Feed • Fluids • Medication		
Ward Staff Nurse has trained patient / relatives / care agencies on how to administer medications via enteral feeding tube (if agreed in MDT)		
Enteral feeding tube site clean, no evidence of discharge or infection (any problems discuss with CNS Nutrition)		
7 days supply of feed ordered from pharmacy by Nursing Staff		
7 days supply of giving sets provided by Nursing Staff (for pump feed only)		
7 days supply of 60ml purple syringes provided by Nursing Staff		
If patient has a PEG feeding tube, supply spare PEG end.		
Pump and stand provided by Dietitian (for pump feed only)		
Other ancillaries e.g. pH strips / sterile water / 10ml syringes (if required- to liaise with Dietitian)		
Enteral Feeding Discharge pack provided by Dietitian		
District Nurse contacted (if appropriate) by Nursing Staff		
GP made aware of discharge by Nursing Staff / Medical Team		

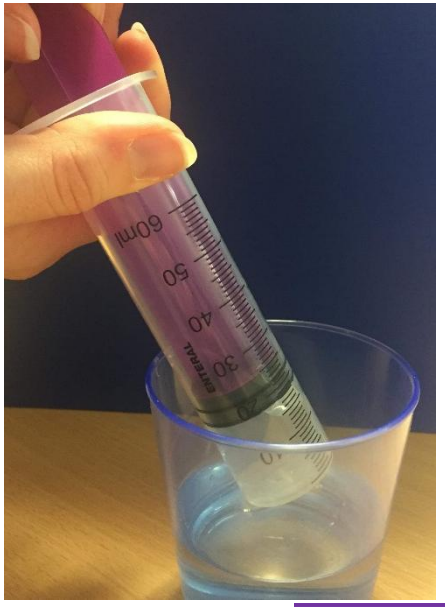
Completed form to be filed in patient's medical notes

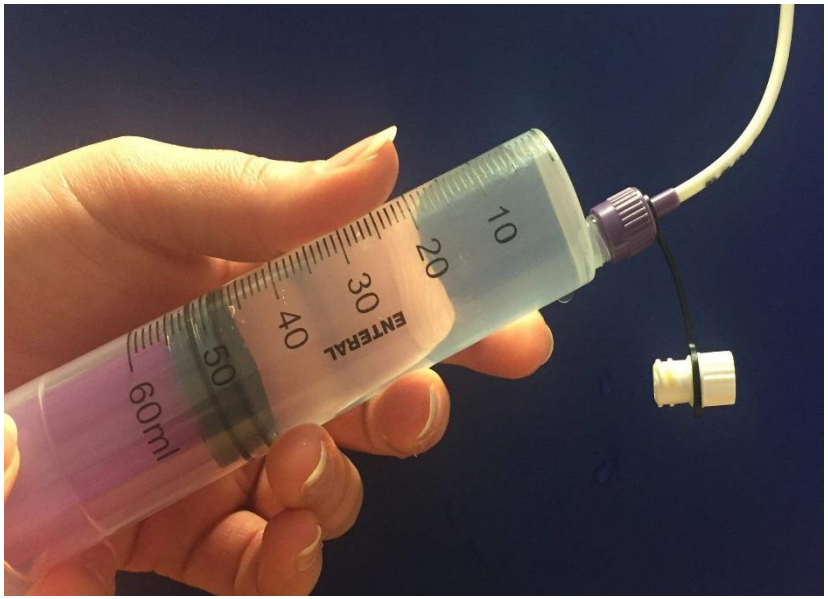
Appendix 12: Administration of Bolus Feed via Nasogastric Tube (NGT)



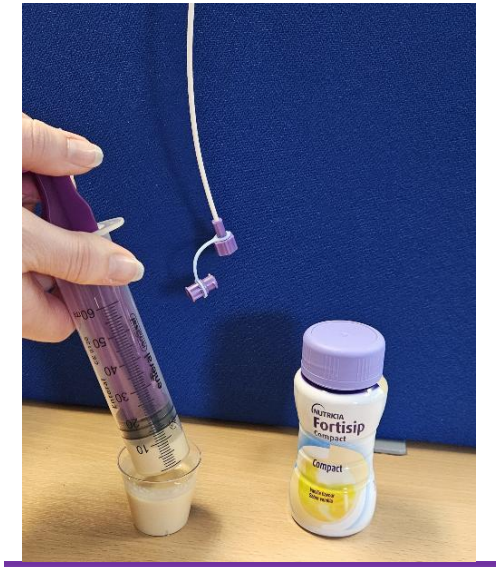


1. pH test the nasogastric tube (NG). pH MUST be 5.5 or below.





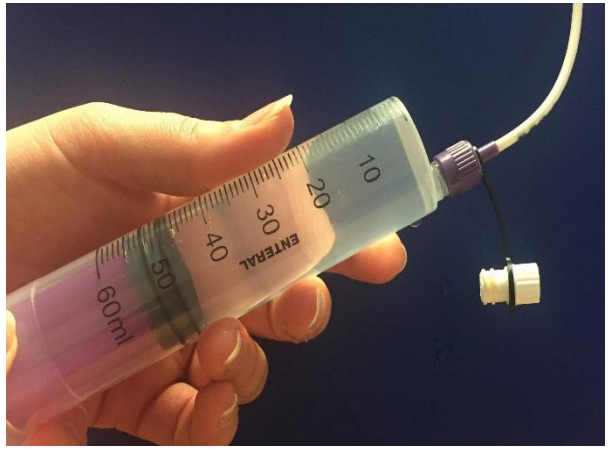
2. Administer 50ml pre feed water flush.



3. Draw the prescribed feed up into the enteral syringe.

4. Attach the filled syringe onto the end of the NG.

5. Push the plunger to gently administer the feed. The whole bolus feed including water flushes should take at least 20 minutes.
6. Refill the syringe and repeat steps 1-5 until the prescribed volume of feed has been administered.



7. On completion of the feed, administer 50ml water flush.
8. Disconnect the syringe and replace the cap on the end of the feeding tube to keep it clean for next planned bolus feed.

Please contact your local Dietetic Department or CNS Nutrition if you have any queries:

Dietetics Departments:
Bronglais Hospital: 01970 635730
Glangwili Hospital: 01267 227067
Prince Philip Hospital: 01554 783061
Withybush Hospital: 01437 773357

CNS Nutrition:
Linda Broomfield (Lead): 07974 242735
Jenny Forrest (WGH): 07584 590479
Nadine Hughes-Llewellyn (PPH/GGH): 07977 067945
Lauren James (BGH): 07989 738044

Appendix 13: Administration of Pump Feed

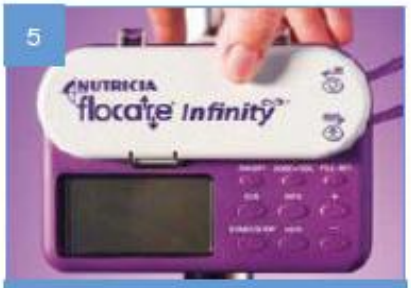
PRE-PROGRAMMING SET-UP (FOR PACK OR OPTRI BOTTLE)

Wash hands thoroughly, check feed and expiry date

Attach Flocare Infinity Pack giving set to prescribed feed (or water)

Screw tightly

Open door and insert giving set



Close door (click)

Press and hold ON/OFF until beeps

Wait for VOLUME screen to be displayed (after calibration symbols)

Press CLR (short press)

Rate screen will be displayed, use +/- keys to programme rate

Please turn over for programming options

Information contained here relates to programming the pump only. For clinical queries contact your healthcare professional.

9A Programming Option 1 – Continuous feeding

Press DOSE/VOLUME, then CLR, screen will show CONT

9B OR Programming Option 2 – Dose feeding

Press DOSE=VOL, use +/- keys to programme dose

10

Press and hold FILL SET until beeps

11

Connect giving set to feeding tube

12

Press START/STOP (3 beeps)

13

The RUN symbol will rotate to indicate that the pump is working

For more information or online training visit
www.nutriciaflocare.com

Information contained here relates to programming the pump only. For clinical queries contact your healthcare professional.

Nutricia Advanced Medical Nutrition
White Horse Business Park, Trowbridge, Wiltshire BA14 0XQ
nutricia.co.uk
SCC3612-02/19

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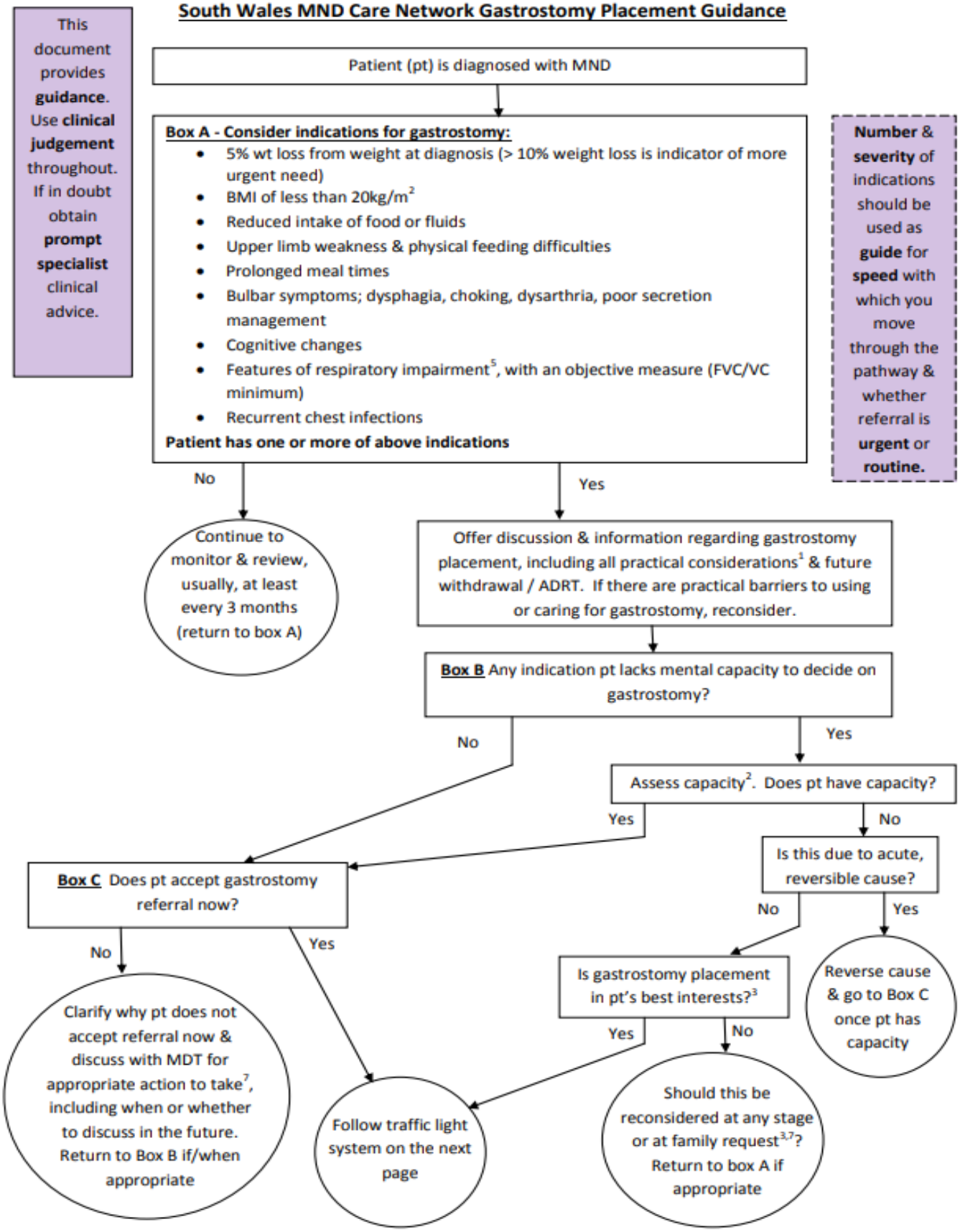
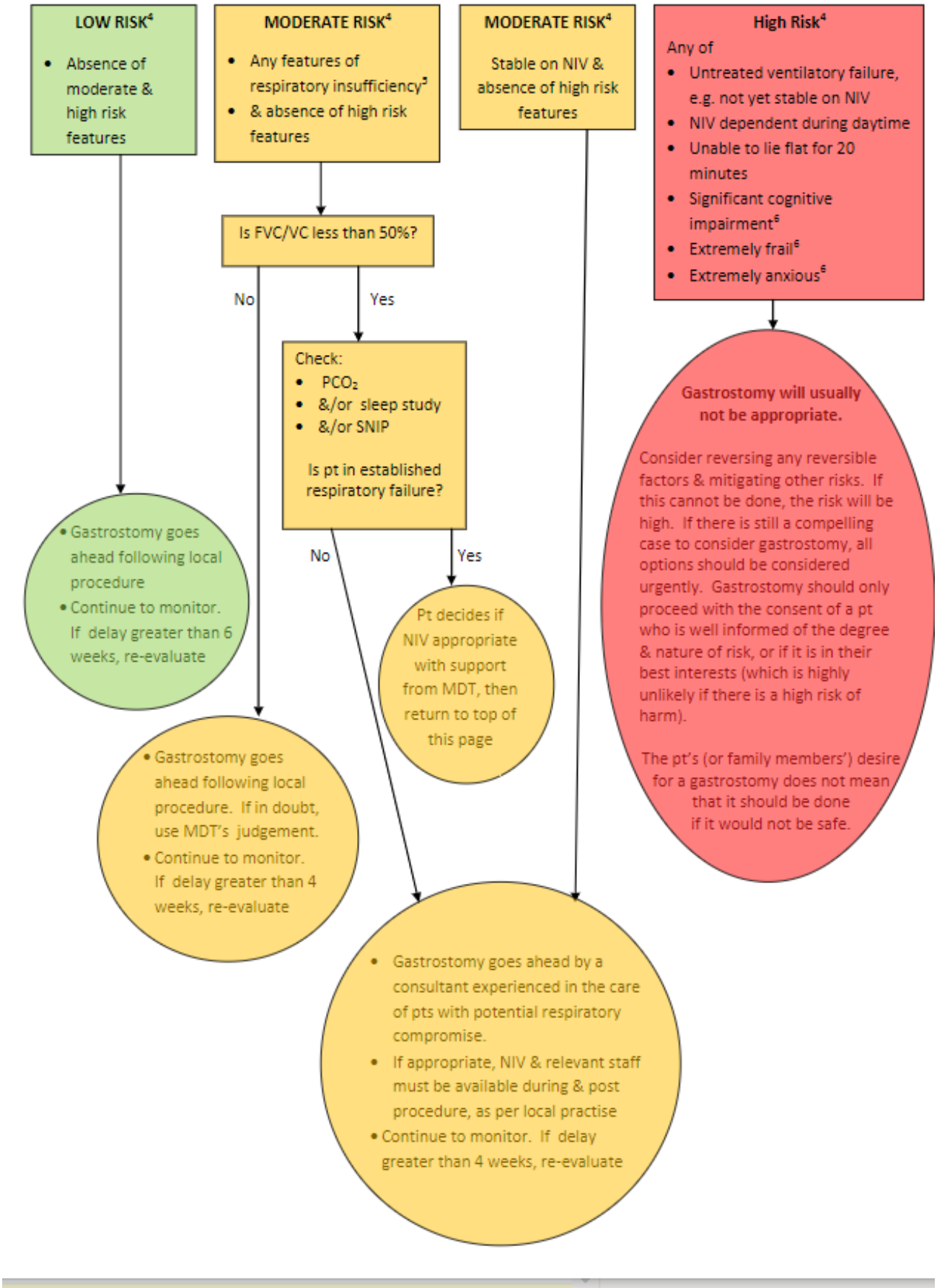
Appendix 14: South Wales MND Care Network Gastrostomy Placement Guidance




LOW RISK[4]
Absence of moderate & high risk features
MODERATE RISK[4]
Any features of respiratory insufficiency[5]
& absence of high risk features
MODERATE RISK[4]
Stable on NIV & absence of high risk features
High Risk[4]
Any of
Untreated ventilatory failure, e.g. not yet stable on NIV
NIV dependent during daytime
Unable to lie flat for 20 minutes
Significant cognitive impairment[6]
Extremely frail[6]
Extremely anxious[6]
Is FVC/VC less than 50%?
No
Yes
Check:
PCO2
&/or sleep study
&/or SNIP
Is pt in established respiratory failure?
No
Yes
Gastrostomy goes ahead following local procedure
Continue to monitor. If delay greater than 6 weeks, re-evaluate
Pt decides if NIV appropriate with support from MDT, then return to top of this page
Gastrostomy will usually not be appropriate.
Consider reversing any reversible factors & mitigating other risks. If this cannot be done, the risk will be high. If there is still a compelling case to consider gastrostomy, all options should be considered urgently. Gastrostomy should only proceed with the consent of a pt who is well informed of the degree & nature of risk, or if it is in their best interests (which is highly unlikely if there is a high risk of harm).
The pt's (or family members') desire for a gastrostomy does not mean that it should be done if it would not be safe.
Gastrostomy goes ahead following local procedure. If in doubt, use MDT's judgement.
Continue to monitor. If delay greater than 4 weeks, re-evaluate
Gastrostomy goes ahead by a consultant experienced in the care of pts with potential respiratory compromise.
If appropriate, NIV & relevant staff must be available during & post procedure, as per local practise
Continue to monitor. If delay greater than 4 weeks, re-evaluate

Footnotes

1 How will feed and fluid be administered? Who will administer daily gastrostomy care &/or feed &/or fluids &/or medications? Will pt be able to remain in their preferred place of care?

2 Agree locally who, how and where. This will vary depending on skills, confidence and geography of MDT.

3 Refer to relevant guidance and re-visit practical consideration in footnote 1.

4 Risk refers to risk of harm from gastrostomy procedure.

5 Look for features of respiratory impairment and consider if these are clinically relevant. These include:

- FVC/VC less than 50%
- Breathlessness
- Orthopnoea
- Recurrent chest infections
- Disturbed sleep
- Weak sniff
- Non-refreshing sleep inspiration)
- Nightmares
- Daytime sleepiness
- Poor concentration and/or
- memory
- Confusion
- Hallucinations
- Morning headaches
- Fatigue
- Poor appetite
- Increased respiratory rate
- Shallow breathing
- Weak cough (could be assessed by measuring peak cough flow)
- Weak sniff
- Abdominal paradox (inward movement of the abdomen during inspiration)
- Use of accessory muscles of respiration
- Reduced chest expansion on maximal inspiration

NICE NG42

6 This is to be determined by the clinical judgement of the MDT

7 If gastrostomy is not placed, the following guidance is advised:

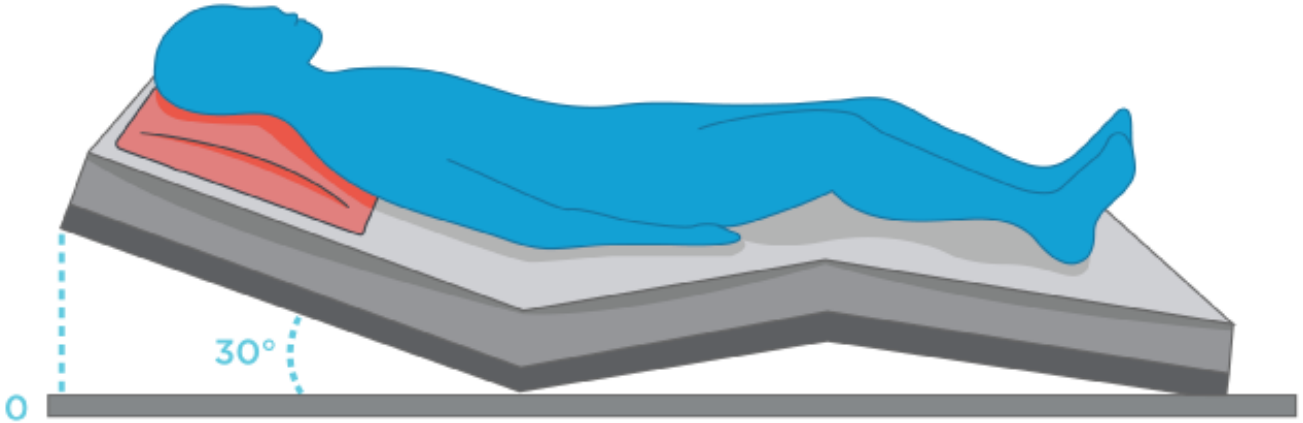
- Close interagency working
- Respect pt's decision to eat &/or drink at risk if pt has capacity
- Consider advance care planning
- If pt lacks capacity, consider if eating and drinking at risk is in pt's best interest
- Ensure relevant risk assessments and care plans are in place
- Provide regular oral care
- Consider medication for anxiety &/or secretions

southeastwales.mnd.cav@wales.nhs.uk *Review date: May 2019*

Enteral Tube Feeding: Patient Positioning

When giving feed, fluids or medication:

Minimum 30 degree angle in bed and maintain for 30 minutes after tube use.



This will help minimise the risk of aspiration.

Version 1 September 2023
CNS Nutrition & Dietetics