Mersey Care NHS
NHS Foundation Trust

TRUST-WIDE CLINICAL POLICY DOCUMENT

ENTERAL FEEDING CLINICAL GUIDANCE

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Version 7

Quality, recovery and wellbeing at the heart of everything we do

Mersey Care NHS
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Further information about this document:

Document name	**ENTERAL FEEDING CLINICAL GUIDANCE SD-G2**
Document summary	**These guidelines outline the clinical standards for patients receiving enteral feeding within Secure and Local Divisions of Mersey Care NHS Foundation Trust in line with current guidelines**
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Published by Copies of this document are available from the Author(s) and via the trust's website	**Mersey Care NHS Foundation Trust** **V7 Building** **Kings Business Park** **Prescot** **Merseyside** **L34 1PJ** **Your Space Extranet: http://nww.portal.merseycare.nhs.uk** **Trust's Website www.merseycare.nhs.uk**
To be read in conjunction with	**Physical Healthcare Policy** **Nutrition Policy** **HSS Food and Fluid Refusal Guidelines** **Dysphasia Guidelines** **Food Hygiene Policy** **Secure Guidelines for Insertion of NG Tube**
This document can be made available in a range of alternative formats including various languages, large print and braille etc	

Version Control:

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Version 4	Placed on Trust Website	March 2012
Version 5	Reviewed May-15, following interim review	May 2015
Version 6	Submitted to Policy Group for endorsement	October 2015
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SUPPORTING STATEMENTS

this document should be read in conjunction with the following statements:

SAFEGUARDING IS EVERYBODY'S BUSINESS

All Mersey Care NHS Foundation Trust employees have a statutory duty to safeguard and promote the welfare of children and vulnerable adults, including:

- being alert to the possibility of child/vulnerable adult abuse and neglect through their observation of abuse, or by professional judgement made as a result of information gathered about the child/vulnerable adult;
- knowing how to deal with a disclosure or allegation of child/adult abuse;
- undertaking training as appropriate for their role and keeping themselves updated;
- being aware of and following the local policies and procedures they need to follow if they have a child/vulnerable adult concern;
- ensuring appropriate advice and support is accessed either from managers, *Safeguarding Ambassadors* or the trust's safeguarding team;
- participating in multi-agency working to safeguard the child or vulnerable adult (if appropriate to your role);
- ensuring contemporaneous records are kept at all times and record keeping is in strict adherence to Mersey Care NHS Foundation Trust policy and procedures and professional guidelines. Roles, responsibilities and accountabilities, will differ depending on the post you hold within the organisation;
- ensuring that all staff and their managers discuss and record any safeguarding issues that arise at each supervision session.

EQUALITY AND HUMAN RIGHTS

Mersey Care NHS Foundation Trust recognises that some sections of society experience prejudice and discrimination. The Equality Act 2010 specifically recognises the *protected characteristics* of age, disability, gender, race, religion or belief, sexual orientation and transgender. The Equality Act also requires regard to socio-economic factors including pregnancy /maternity and marriage/civil partnership.

The trust is committed to equality of opportunity and anti-discriminatory practice both in the provision of services and in our role as a major employer. The trust believes that all people have the right to be treated with dignity and respect and is committed to the elimination of unfair and unlawful discriminatory practices.

Mersey Care NHS Foundation Trust also is aware of its legal duties under the Human Rights Act 1998. Section 6 of the Human Rights Act requires all public authorities to uphold and promote Human Rights in everything they do. It is unlawful for a public authority to perform any act which contravenes the Human Rights Act.

Mersey Care NHS Foundation Trust is committed to carrying out its functions and service delivery in line with a Human Rights based approach and the FREDA principles of **F**airness, **R**espect, **E**quality **D**ignity, and **A**utonomy.

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1. PURPOSE AND RATIONALE

1.1 Enteral Feeding is a means of delivering nutrition into the gastrointestinal tract through a tube, either via the nose or directly into the stomach or small intestine through a stoma in the intestinal wall. This method of feeding is only necessary/desirable when a patient's nutritional needs cannot be met orally, for various possible reasons.

1.2 These guidelines are intended for Mersey Care staff when caring for patients who require enteral feeding. At all times care must be taken to ensure the safety of the patient and staff.

1.3 Enteral feeding is a means of delivering nutrition into the gastrointestinal tract through a tube, either via the nose or directly into the stomach or small intestine through a stoma in the intestinal wall.

1.4 These guidelines are informed by NICE Clinical Guideline 32: Nutrition support in adults (February 2006). The NICE guidelines do not specifically cover patients with eating disorders/food refusal, because the aims of intervention differ significantly from those with malnutrition related to physical disease.

2. OUTCOME FOCUSED AIMS AND OBJECTIVES

2.1 For these Enteral Feeding Guidelines the aims and objectives are as follows. The guidance covers all aspects of multi-disciplinary care for patients being enterally fed, as follows:

(a) indications for Enteral Feeding;

(b) decision to feed and feeding against the will of the patient;

(c) feeding routes and method of delivery;

(d) process of administering enteral feeding and medicines;

(e) infection prevention and control;

(f) monitoring a patient receiving enteral feed;

(g) guidance on how to deal with problems associated with enteral feeding;

(h) recording and documentation;

(i) training.

3. SCOPE

3.1 The Enteral Feeding Clinical Guidance document has been developed for all Medical, Nurses and Health Care Professionals (with the skills and completed training to care for patients who are enterally fed (with appropriate training), to act a point of reference or guide: To ensure they act in a safe and effective manner to minimise all potential risks and harm to the patient.

3.2 This policy applies to: people who access Mersey Care NHS Foundation Trust inpatient services.

3.3 This policy does not cover: outpatients, community, carers, relatives, staff and other visitors to the Trust.

4. DUTIES

4.1 Board of Directors – is responsible for ensuring that effective nutritional care systems are in place and that these are monitored. The provision of good quality food and fluid to meet the requirements of all patients is essential. The Trust supports and promotes the need for effective multi disciplinary working to provide the best possible care for patients, which includes meeting their nutritional needs.

4.2 Chief Executive – is responsible for ensuring the Trust meets its statutory and non-statutory obligations in respect of maintaining appropriate standards of privacy and confidentiality for patients and their careers in relation to the nutritional status, needs and requirements of patients.

4.3 Executive Director of Nursing – is accountable to the Trust Board for the implementation of the Policy and ensuring that appropriate physical health and nutrition care management is monitored and reported to the Trust Board accordingly.

4.4 Divisional Head of Services – are responsible for delivering the nutritional and hydration agenda. They will:

(a) ensure that specialist advice, support and interventions will be provided according to an individual's dietary needs or preferences, including their religious and/or cultural dietary requirements;

(b) oversee a multi disciplinary approach to nutritional care and values the contribution of all staff groups working in partnership with service users;

(c) seek assurance of work in partnership with service users and carers to promote good nutrition as part of a healthy lifestyle, in keeping with a recovery focused approach, which emphasises the prevention of poor nutrition as well as treatment.

4.5 Modern Matrons and Team Managers – will ensure:

(a) all staff are aware of these guidelines;

(b) all staff have received appropriate competency based training;

(c) all equipment is maintained, logged on the Trust medical device inventory and replaced when necessary;

(d) if the service user is discharged before referred to dietetics and nutritional status is a concern this will be included on the GP Discharge Notification/ Discharge Summary.

4.6 Medical Staff – will be aware of:

(a) the service user's nutritional needs (including refeeding risk) and care plan as identified by MUST and the need to refer to dietetics if needed;

(b) concerns regarding nutritional intake discussed at Multidisciplinary Team meeting and legal advice sought if appropriate;

(c) prescribing nutritional and food supplements as recommended by the dietitian assessment;

(d) including in the GP Discharge Notification/Discharge Summary if the service user is discharged before referred to dietetics and nutritional status is a concern.

4.7 Ward Managers and Nursing staff are responsible for:

(a) all staff working with patients, if it is relevant to their role and skills, are required to assess and manage physical healthcare in accordance with evidence based practice and Trust policy;

(b) nutritional screening (MUST – Malnutrition Universal Screening Tool – adapted for Mersey Care NHS Trust) of service users within 72 hours of admission, appropriate documentation and reviewing and rescreening regularly throughout admission as indicated by the MUST tool;

(c) justification if unable to screen a patient in service user's clinical notes should also be documented;

(d) referral to the dietitian where a comprehensive nutrition assessment is necessary because the nutritional screening assessment identifies risk of poor nutrition and hydration. Patients to be admitted to the ward on enteral feeds should to be referred to the dietitian pre-admission if possible to allow time to arrange appropriate staff training, order feed and equipment, etc;

(e) providing personalised and evidence based nutritional care, which includes being aware of an individual's needs or preferences; inclusive of vegetarian, vegan and cultural, ethnic or religious requirements;

(f) ensuring the environment supports good nutritional care and promotes dignity to the patient;

(g) food and fluid record charts completed according to MUST;

(h) challenging poor practice in relation to nutrition and hydration;

(i) to follow care plan as outlined by the specific health professional, eg dietitian/speech therapy and report to the health professional if a patient non compliant;

(j) if the service user is discharged before referred to dietetics and nutritional status is a concern this will be included on the GP Discharge Notification/Discharge Summary;

(k) nurses' professional accountability – all registered nurse practitioners are professionally accountable to the Nursing and Midwifery Council, as well as having a contractual accountability to their employer and accountability to the law for your actions. The Code of Professional Conduct obliges you to put the interests of patients before your own interests and those of your professional colleagues.

4.8 Dietitians:

(a) dietitians are the only qualified health professionals that assess, diagnose and treat diet and nutrition problems;

(b) advise and inform the Trust on new initiatives, polices and guidelines on nutrition of enteral feeding;

(c) maintain evidence based practice within the Trust;

(d) dietitians will provide a nutritional assessment for appropriate patients referred and review patients on enteral feed as per professional guidance;

(e) organise competency based training for staff/carers;

(f) liaise with the relevant catering staff as required – for the provision of appropriate meals/special diets;

(g) advise, prescribe and review nutritional supplements;

(h) refer and liaise with other health care professionals including Speech and Language Therapists on dysphagia issues and Occupational Therapists on activities of daily living as part of an integrated approach to care;

(i) identify and implement competency based training to catering, nursing and other clinical staff, patient, careers on enteral feed related issues ie Screening/Pump/ Bolus feed training;

(j) advise on an appropriate nutritional care plan; liaise with nursing staff, catering staff and the wider MDT;

(k) if continued dietetic care is needed on discharge from Mersey Care Foundation Trust, the Dietitian will send a nutrition discharge letter to the GP and if appropriate the community dietetic service required.

4.9 Speech and Language Therapist (SLT)

(a) SLTs advise and inform the trust on new initiatives, polices and guidelines in dysphagia. Advise on an appropriate swallow/feeding assessment, management and care planning; support its implementation and review the treatment/care plan. This may include food/fluid texture modification and feeding strategies and palliative care;

(b) liaise and advise with service user, carers, GP and other professionals involved such as dietitians and nursing staff and refer on to other MDT services;

(c) if continued SLT care is needed on discharge from Mersey Care Foundation Trust, the SLT will send a discharge letter to the GP and if appropriate refer to the local community service;

(d) Secure Division Physical Health Care Group and Local Division Physical Health Forum have been established. The role of these groups is to monitor the implementation of this policy throughout the Trust.

5. PROCESS

5.1 Indications for Enteral Feeding

Whenever possible, oral food intake is always preferred. Enteral feeding is only necessary/desirable when a patient's nutritional needs cannot be met orally, for example in:

(a) food/fluids refusal or hunger strike;

(b) psychiatric disease, eg anorexia nervosa, severe depression;

(c) neurological problems, when energy requirements may be increased eg Huntington's Disease;

(d) swallowing disorders (dysphagia);

(e) stroke or head injury;

(f) head and neck cancer;

(g) GI dysfunction or malabsorption;

(h) upper GI obstructions;

(i) specific treatments, eg Crohn's Disease.

5.2 Indications for enteral feeding in patients with a functional and accessible gastrointestinal tract but inadequate oral intake are:

(a) patient has eaten little or nothing > 5 days, and/or is likely to eat little or nothing for the next 5 days or longer;

(b) unintentional weight loss >10% within the previous 3 to 6 months;

(c) BMI<18.5 kg/m2;

(d) BMI<20 kg/m2 and unintentional weight loss >5% within the previous 3 to 6 months;

(e) patient has poor absorptive capacity, is catabolic and/or has high nutrient losses;

(f) patient with weight loss consistent with the above AND who lacks the mental capacity to make an informed decision in respect of food/fluid intake; AND/OR

(g) patient detained under the Mental Health Act 1983 whose refusal to refuse food/fluids is linked to her/his mental disorder.

5.3 Screening for malnutrition and the risk of malnutrition should be carried out within 72 hours of admission and reviewed according to the MUST score and care plan. It should be carried out by healthcare professionals with appropriate skills and training.

5.4 Screening should assess Body Mass Index (BMI) and percentage unintentional weight loss, and should consider the time over which nutrient intake has been unintentionally reduced and/or the likelihood of future impaired nutrient intake. (NICE Clinical Guideline 32 Feb.2006 Nutrition Support in Adults: Oral Nutrition Support, Enteral Tube Feeding and Parenteral Nutrition.

Decision to feed enterally

5.5 The decision to feed enterally is made by the multidisciplinary team in consultation with the client and his/her family, if possible. Healthcare professionals should act in the patient's best interest if he or she is not competent to give consent. (NICE Clinical Guideline 32 Feb.2006. Nutrition Support in Adults: Oral Nutrition Support, Enteral Tube Feeding and Parenteral Nutrition.)

5.6 Feeding against the will of the patient:

(a) feeding against the will of the patient should be an intervention of the last resort in the care and management of those with severe eating disorders or other mental illness. It should be considered in the context of the Mental Health Act 1983, the Mental Capacity Act 2005 or the Children Act 1989 (and their respective Codes of Practice);

(b) where the Mental Capacity Act 2005 is used to authorise enteral feeding the patient should be assessed to see if additional authorisation under the Deprivation of Liberty Safeguards apply;

(c) all mental capacity assessments must be Mental Capacity Act 2005 compliant (please refer to Trust Policies MC01 – MC04 inclusive);

(d) for a detailed analysis and step-by-step guidance to the administration of enteral feeding in all circumstances, please refer to Appendix 1: MENTAL CAPACITY, CONSENT & HOSPITAL IN-PATIENT ADMISSION FOR THE ASSESSMENT, CARE and TREATMENT OF ENTERAL FEEDING;

(e) Mersey Care NHS Foundation Trust SD-G1: Food and fluid refusal guidelines should be followed.

6. FEEDING ROUTES

Enteral feeding is most commonly used to place feed into a patient's stomach. When necessary it is possible to feed directly into the duodenum or jejunum (small intestine). The route and type of appliance used will depend on the individual circumstances of the patient.

6.1 Short term feeding (up to 4 weeks)

6.1.1 Nasogastric tube feeding (NG)

A fine bore feeding tube (French gauge 5-8) is inserted via the nose into the stomach. An example is Merck Corflo 8 French (weighted) 92 cm. Bolus or pump feeding can be used with an NG tube. Long term fine bore tubes should be replaced every 4-6 weeks, swapping them to the other nostril. Regular checks of NG tube placement are imperative as there is a risk that tubes can be misplaced into the lungs on insertion or move from the stomach at a later stage (see Section 10 (f)).

6.2 Long term feeding (longer than 4 weeks)

6.2.1 Percutaneous endoscopic gastrostomy (PEG)

The feeding tube is placed into the stomach through an abdominal stoma. Gastrostomies are commonly placed endoscopically by a method called percutaneous endoscopic gastrostomy (PEG) and are retained in the stomach by a flange. Gastrostomies can be placed surgically or radiologically, if necessary.

6.2.2 Button gastrostomy

This is a small tube that has the same function as a PEG but the button is flush with the patient's abdomen and less conspicuous. The button is held in place by a small balloon inside the stomach and the balloon needs to be checked weekly. Button gastrostomies are used more frequently in children than adults.

6.2.3 **Gastrojejunestomy**

This is an endoscopically placed extension of a PEG. The extension is passed through the PEG into the stomach and down past the pylorus into the jejunum. These are used if there is a problem with the stomach or gastric emptying.

7. METHOD OF DELIVERY

7.1 The dietitian, in consultation with doctors and other health professionals, will decide on feed type and method of delivery. Factors considered are:

(a) patient's current and past nutritional status;

(b) feeding environment;

(c) reason for feeding enterally;

(d) proposed time period of enteral feeding;

(e) any complications present;

(f) patient's wishes.

7.2 A written regimen specifying feed, rate of feeding, and additional water flushes will be provided by the dietitian. Sample feeding regimen sheets are in Appendix 2.

7.2.1 **Infusion (feed delivered by pump)**

Pumps can be set to deliver feed at rates between 5 and 500 ml per hour. Feeds are usually begun at a low rate (about 50 ml/hr) and increased in stages to about 100 to 150 ml/hour after tolerance is demonstrated. Only to increased as directed by the dietitian.

7.2.2 **Continuous**

Continuous feeding usually refers to feeding over 16 – 20 hours. Continuous feeding is used if a patient is unable to tolerate large volumes of feed. It can be used initially and the patient may progress onto an intermittent infusion regime. The feed may be delivered overnight or during the day depending on the individual patient's needs and tolerance. Continuous feeding usually includes a break of at least 4 hours in 24 hours to allow the stomach to re-acidify. 24 hour feeding is used in critical care or patients on a sliding scale insulin.

7.3 **Intermittent**

This involves periods of feeding using the pump with breaks.

Bolus feeding (without pump):

a) Bolus feeding involves the delivery of 100 mls to 300 mls over a period of 10 – 30 minutes and can be given 4 – 6 times a day depending on patient's individual feeding regime. Administration can be with a syringe using only the barrel as a funnel to allow the feed to infuse using gravity. The plunger from the syringe should not be used to push feed through. Bolus feeding can also be administrated with bolus feed gravity sets. If there are any signs of intolerance then another feeding method should be sought;

b) if administering medication via enteral feeding system as a bolus, the correct safety devices and connector combinations should be used at all times, ensuring that three way and syringe tip adaptors Patient Safety Alert 19, March 2007.

8. TYPE OF FEED

8.1 A wide variety of feeds is available. Sterile packs of feed are preferable to those that need decanting as there is less risk of contamination. The dietitian will choose the most suitable feed depending on the individual needs of the patient. Feed should be stored in a cool dry place, off the floor and away from direct sunlight.

8.2 Standard whole protein feeds such as Osmolite provide 1 kcal/ml, while Jevity 1.5kcal provides 1.5 kcal/ml. High energy feeds are useful when fluid is restricted or to reduce feeding time. Most feeds are lactose, gluten and wheat free, and suitable for vegetarians, Kosher and Halal diets. However, the majority of feeds are not suitable for vegans and some allergens.

8.3 Diabetics are usually given standard formulas but should be monitored frequently. See the section on Monitoring for Guidance (Section 18.8 – Diabetic Monitoring).

9. FLUID

9.1 Feeding tubes should be flushed with water before and after administration of feed, medication and in between medications.

9.2 Use freshly drawn tap water for patients who are not immunosuppressed. For immunosuppressed patients or those being fed into the jejunum, use sterile water from a freshly opened container.

9.3 This helps to prevent blockage of the tube whilst also contributing to overall fluid contents.

9.4 Full fluid requirements can usually be met by feed and flushes, although additional flushes may be requested to meet the patient's daily fluid requirements. If IV fluids are also being given, these must be taken into account.

9.5 The dieticians should be informed of any on-going loss of body fluids, eg diarrhoea, seepage from burns, excessive perspiration, so that the fluid content of the feed can be adjusted accordingly. This will involve an increase of 2 to 2.5mls/kg body weight for each 0°C rise in body temperature above 37°C. Some medical conditions require higher fluid intakes. When this is the case, a doctor will prescribe the necessary fluid.

10. NASOGASTRIC INTUBATION WITH TUBES WITHOUT USING AN INTRODUCER, EG A RYLE'S TUBE

10.1 It is recommended that a nasogastric tube designed for feeding purposes be used wherever possible, eg fine-bore feeding tube, rather than a Ryle's tube which is used for drainage of gastric contents.

Recommendations for Practice – Staff Training and Competence

(a) a patient requiring NG tube insertion should be managed and supported by appropriately trained staff;

(b) Registered Nurses and Registered Medical Staff should ensure that they are involved in insertion and/or position checks that they have been assessed as competent through theoretical and practical training;

(c) skills and competence should be reviewed 3 yearly and updated to reflect new practice in the management of NG tubes;

(d) only 2 attempts should be made by 1 person to insert a NG tube. If the attempts are unsuccessful another experienced practitioner should retry.

Insertion of a Nasogastric Tube

(e) Necessary equipment (NHS Supplies code in brackets):

(i) clinically clean receiver,

(ii) fine bore nasogastric tube (FWM2119),

(iii) 50 ml purple enteral syringe (FTR1160) and 20 ml purple enteral syringe (please check female end, as this is a screw type: FTA306),

(iv) hypoallergenic tape,

(v) glass of water (if the patient is able to swallow) and is allowed fluids,

(vi) pH indicator strips (0.5 graduations, FWM1216),

(vii) Personal Protective Equipment (PPE)- disposable gloves and apron,

(viii) indelible marking pen,

(ix) gloves (Extra small – FTG546 , Small – FTG285, Medium – FTG286, Large – FTG287, Extra Large – FTG288),

(x) aprons (BTB272 – roll of 200);

Passage of Nasogastric Tube

	ACTION	**RATIONALE**	**EVIDENCE**
1	Give a detailed explanation and obtain verbal consent.	To obtain the persons consent and cooperation	CREST 2004.Pritchard et al 2004
2	Ensure that the patient knows a signal (eg to raise hand) to communicate that he/she wants the nurse to stop.	The person is often less frightened if he/she feels able to have some control over the procedure.	Mensforth A & Nightingale JMD (2001) Mallet J & Dougherty L (2000)
3	Help the patient to sit in a supported comfortable upright position (55 – 65° angle) in the bed or chair supported by pillows. NB The head should not be tilted backwards. If unconscious, place in a safe position by laying the patient in their side, do not extend the neck.	To allow for easy passage of the tube. this position enables easy swallowing and ensures the epiglottis is not obstructing the oesophagus. To ensure correct passage and position of the tube.	McConnell EA (1997) Mallett J& Dougherty L (2000)

4	Ensure strict hand hygiene is adhered to and PPE put on prior to commencing procedure.	To maintain hand hygiene to reduce the risk of contamination.	
5	Standard Infection Control precautions should be used when performing this procedure.		Infection Prevention and Control Policy
6	Determine the length of tube required by measuring from the nose to the ear lobe and then to the xiphisternum and mark this length on the tube (limiting mark) with pen or tape. Where a guidewire is present, straighten the tube by stretching, this makes it easier to remove the guidewire afterwards. If present, ensure guidewire is fully locked on to the end of the NG tube. Lubricate the end of the tube with water- do not use lubricating gel as this gives an acid reaction. (CREST 2004)	To ensure that the appropriate length of the tube is passed into the stomach.	Mallet J & Dougherty L (2000)
7	If patient has intact swallow reflex- ensure a glass of water or bottle is available to sip in preparation for tube placement. If patient is 'Nil by mouth'- they should be asked to repeatedly carry out a swallow action. But not take a drink.		
8	Ask the patient to blow their nose if they are able to clear the nasal passages. Check nostrils are patent by asking the patient to sniff with one nostril closed. Repeat with other nostril. Insert the rounded end of the tube into the nostril, slide it backwards and inwards along the floor of the nose to the nasopharynx. Withdraw if any obstruction is felt, try again at a slightly different angle or use the other nostril.	To facilitate the passage of the tube following the natural anatomy of the nose. To avoid trauma to the nasal passage.	Pritchard et al (2004) Mensforth A & Nightingale JMD (2001) Mallet J & Dougherty L (2000)
9	As the tube passes into the nasopharynx ask the patient to start swallowing (or sip if able).	A swallowing action closes the glottis enabling the tube to pass into the oesophagus.	Mallet J & Dougherty L (2000)

10	Advance the tube until you reach the point where the tube was measured and marked. As the tube insertion proceeds observe the patient and remove the tube if coughing, gasping distress or cyanosis occurs. Withdraw tube as this may indicate tracheal placement. **NB Maximum of 2 attempts.** Check inside the mouth for a coil of tube if the patient is unable to communicate.	**Some patients do not have a cough reflex and unrecognised entry to the trachea may occur eg in Stroke. Neuro sedated and trauma patients.**	Mallet J& Dougherty L (2000)
11	Confirm correct placement of tube before removing guide wire by aspirating tube using 50ml enteral syringe.		
12	Care should be taken to ensure that the end of the tube is firmly closed with a spigot when not in use and that this is checked regularly.	To ensure that acidic gastric contents do not leak or siphon from the tube, resulting in caustic burns to the patients skin.	
13	Measure the length of tubing remaining from the nostril to the tip (ie visible tubing).	Give baseline against which to assess possible tube is placement.	
14	Once the position has been confirmed, remove the guidewire. To remove the guidewire attach a 20ml enteral syringe containing 10ml of water to the end of the tube and slowly inject the water down the tube. This activates the internal lubricant in the tube and aids removal. The tube should be held firmly at the tip of the nose to ensure that the tube stays in position as the guidewire is removed. **The guidewire may now be removed carefully. The guidewire must never be reinserted while the tube is still in the patient (CREST 2004)**		
15	Following successful insertion use an adhesive patch to anchor the tube securely to the cheek and hook it over the ear, keeping it out of the patient visual fields and avoiding friction to the nose. Where the adhesive patch proves unsuitable, use a barrier product	To maintain the tube in place. To ensure comfort.	

	such as a hydrocolloid dressing to protect the skin and a transparent dressing placed over this to hold the tube in place. Consider use of a nasal bridle to secure the NG tube if NG is frequently displaced (NICE Clinical Guidelines (32) 2006).		
16	Remove PPE and decontaminate hands following NG tube insertion.		
17	At all times during the procedure talk to and reassure the patient.		
19	Check the position of the tube to ensure it is in the stomach (see 9.3 for method)		
18	Document the procedure, size and type of tube and method used to confirm the position of the tube in the patients' medical and nursing notes.		
19	Flush the tube with tap water or flushes as per feeding regimen before commencing feeding and after feed		

Confirming Position of Nasogastric Tube

(f) the NPSA Alert (March 2011 – See Appendix 3) updates and strengthens Patient Safety Alert 05 (reducing the harm caused by misplaced nasogastric feeding tubes);

(g) Nasogastric tubes used for the purpose of feeding must be radio-opaque throughout their length and have externally visible length markings;

(h) the length of the tube should be estimated before insertion using the NEX measurement. Place exit part of tube at the NEX of nose. Extend tube to earlobe and then to xiphisternum – known as the NEX measurement. Once inserted the external tube length should be recorded and confirmed before each feed;

(i) first line test method: pH paper:

(i) pH testings used as the first line test method with pH between 1 and 5.5 as the safe range, and that each test and test result is documented on a chart and kept at the patients bedside (Appendix 4) and copied onto the appropriate form in electronic medical notes,

(ii) pH readings should be between 1 and 5.5 for feeding to commence safely,

(iii) all areas were NG feeding tube placement is likely to occur must have access to pH indicator paper that is CE marked and manufactured to test human gastric aspirate,

(iv) all pH tests and test results must be recorded on a chart and kept at the patients bedside and copied onto the appropriate form in electronic medical notes – Appendix 5;

(j) documentation following pH testing needs to be clear in in-patient's medical notes and must include:

(i) whether aspirate was obtained,

(ii) what the aspirate pH was,

(iii) who checked the aspirate pH,

(iv) when it was confirmed to be safe to administer feed and/or medication (eg gastric pH between 1 and 5.5);

(k) second line testing method – x-ray confirmation:

(i) if x-ray testing method used, ensure position of the tube is re-checked using aspirate pH paper, when returned to the ward before feeding.

Preventing aspiration

10.2 The patient is at risk of aspiration of feed if the gastric contents leak up into the oesophagus. To help prevent aspiration of feed into the patient's lungs, the head of the bed should be elevated by at least 30 degrees during feeding and for one hour after feed has finished. Patients at high risk of aspiration should be fed at 90 degrees and observed frequently.

Motility agents

10.3 If gastric residuals accumulate, there is increased risk of aspiration and/or vomiting. Patients with delayed gastric emptying should be offered a prokinetic agent to stimulate gastric emptying unless there is suspicion of gastrointestinal obstruction or a pharmacological cause.

11. ADMINISTERING ENTERAL FEEDS

Administration of feed using an enteral feeding pump

(a) Equipment:

(i) prescribed enteral feed (at room temperature),

(ii) pump,

(iii) giving set,

(iv) clean jug,

(v) freshly drawn tap water for patients who are not immunosuppressed,

(vi) 50 ml purple enteral syringe,

(vii) pH sensitive strips (for NG tubes only),

(viii) gloves and apron,

(ix) drip stand;

(b) Procedure:

(i) explain procedure to patient,

(ii) wash hands according to Trust policy and put on gloves and apron,

(iii) take the equipment to the patient's bedside or private space. The patient should be encouraged to assist in the procedure if possible,

(iv) close the clamp on the giving set,

(v) check the expiry date on the feed. Shake the bag/bottle, twist off the cap and without touching the spike, tightly screw on the giving set which will break the foil seal,

(vi) hang the bag on the drip stand and prime the giving set, making sure there are no air bubbles,

(vii) flush tube pre and post feed as indicated on the feeding regimen sheet and record,

(viii) connect the giving set to the feeding tube,

(ix) label the giving set with the date and time of changing. Change every 24 hours,

(x) set the rate of administration as directed by the dietitian and press Start,

(xi) record volume of feed and flushes given before after each feed,

(xii) ensure the patient is comfortable observe for signs of feeding intolerance (see Section 15),

(xiii) maintain patient's position upper body at a minimum angle of 30 degrees for one hour. Ensure they do not lay flat;

Administration of bolus feed

(c) Equipment:

(i) prescribed feed (at room temperature),

(ii) 50 ml purple enteral syringe,

(iii) alcohol wipes,

(iv) freshly drawn tap water for patients who are not immunosuppressed,

(v) universal funnel adaptor,

(vi) gloves and apron,

(vii) clean jug;

(d) Procedure:

(i) wash hands according to Trust policy, put on gloves and plastic apron,

(ii) flush feeding tube with 30 – 50 ml of freshly drawn tap water using the 50 ml purple enteral syringe,

(iii) if feeding is via PEG, ensure clip on PEG is then reclosed,

(iv) check expiry date of feed and shake container before opening,

(v) uncap end of tube/PEG, and connect funnel adaptor,

(vi) flush tube with at least 30 ml or as regime of water,

(vii) remove plunger from syringe and connect syringe to funnel adapter,

(viii) fill the syringe with feed using gravity to allow the feed to flow. Open clip on PEG and allow feed to flow through,

(ix) prior to syringe emptying, top up with feed until all has been given. Hold the syringe so that gravity is used to allow liquid into the stomach. If necessary, lower the syringe to a lower level to decrease rate of delivery. Do not allow the syringe to be completely empty before adding more feed,

(x) close clip on PEG tube, remove funnel adaptor, syringe and recap PEG/NG tube end,

(xi) wash adapter and store,

(xii) store unused feed in a refrigerator, labelled with patient's name, date and time of opening, and use with 24 hours,

(xiii) record the volume of feed given and flushes on fluid charts and patient's medical in-patient notes,

(xiv) ensure the patient is comfortable, observe for signs of feeding intolerance (see Section 15),

(xv) maintain patient's position, upper body at a minimum angle of 30 degrees for one hour. Ensure they do not lay flat,

(xvi) do not put anything down the tube that is not recommended by the dietitians and pharmacy.

Refeeding Syndrome

(e) refeeding syndrome may occur when severely malnourished patients are fed enterally. There is a rapid fall in serum levels of phosphate, magnesium and potassium, along with altered glucose tolerance and an increased extracellular fluid volume. The resulting complications can include: respiratory failure, cardiac failure, cardiac arrhythmias, muscle wasting, seizures and coma;

(f) severely malnourished patients (see table below) require vitamin/mineral supplements prior to feeding and cardiac monitoring. They must be cared for by health professionals trained to deal with such cases. A flow chart for the care of such high-risk patients is given in Appendix 6;

(g) NICE (2006) criteria for determining patients at risk of refeeding problems:

High Risk of Refeeding Syndrome if: BMI < 14kg/m^2 and/or No nutritional intake > 15 days
At Risk if one or more of the following: BMI <16 kg/m^2 Unintentional weight loss >15% within the last 3 to 6 months Little or no nutritional intake for >10 days Low levels of potassium, phosphate or magnesium prior to feeding
<u>OR</u> patient has 2 or more of the following BMI <18.5 kg/m^2 Unintentional weight loss >10% within the last 3-6 months Little or no nutritional intake for > 5days A history of alcohol abuse or drugs including insulin, chemotherapy, antacids or diuretics

(h) refer patients to the dietitian that are at risk of refeeding syndrome before commencing enteral feed.

12. INFECTION PREVENTION AND CONTROL

12.1 Microbial contamination of feeds and equipment used in enteral feeding can lead to serious infection.

12.2 Always wash hands thoroughly according to Trust policy before handling feeds and components of the feeding system:

(a) all equipment should be kept sealed in sterile packaging until used and handled minimally;

(b) enteral feed stock should be rotated properly and stored off the floor in a cool dry place away from sunlight and heat;

(c) if a nasogastric tube is pulled out or accidentally displaced, it should not be reused;

(d) enteral feeding tubes should be flushed regularly with at least 30 ml tap water using a 50 ml purple enteral syringe and flushing should be documented. NB For immunocompromised patients sterile bottled water should be used:

(i) every 4 to 6 hours during the day,

(ii) before and after feeding,

(iii) before and after drug administration.

12.3 Single patient use syringes should be discarded after 24 hours.

12.4 Feed, feed reservoirs and giving sets must not be reused and should be discarded after 24 hours. Ready to hang systems can hang for up to 24 hours.

12.5 The feed reservoir must not be lowered below the level of the giving set to avoid reflux into the giving set.

12.6 Opened containers of feed should always be kept refrigerated and used within appropriate time frame. There are recommendations for each feed. NB Allow feed to return to room temperature before use.

12.7 Decanting into separate containers should be avoided (except in bolus feeding), as there is increased risk of contamination. Feed that has been decanted and hung must be thrown away after four hours.

12.8 Check with pharmacy that any medication is suitable before administration.

12.9 When initiating an enteral feed, the patient's medications must be considered to avoid possible drug/nutrient interactions and administration problems. Drugs to be administered through a feeding tube should be liquids or dispersible/soluble formulations. Pharmacy will also consider a number of issues including:

(a) whether the feed reduces drug absorption or alters the pharmacokinetics;

(b) if the rate of the feed needs to be adjusted to allow for drug absorption, eg theophylline, phenytoin, penicillin, ciprofloxacin and oxytetracycline;

(c) if there is an appropriate preparation available for the drug;

(d) if the patient's drugs affect nutritional status, eg diuretics, laxatives, IV fluids and nutritional supplements.

Guide for administration of drugs

(e) check the position of the tube to ensure it is in the stomach (see Section 10.1(f)) for method);

(f) any drugs administered via a nasogastric tube should be given separately from the feed with flushing of the tube before and after*;*

(g) always use a 50 ml enteral syringe (purple) as small syringes cause too much pressure in the nasogastric tube;

(h) flush tube with 30 – 50 ml water;

(i) administer medication according to drug instructions from pharmacy;

(j) flush tube again with another 30 – 50 ml of water;

(k) if a number of drugs are given at one time, flush with 30 ml of water between medications.

13. MOUTH CARE/ORAL HYGIENE

13.1 You will need to keep teeth and mouth clean especially in patients who are nil by mouth or have restricted oral intake.

13.2 In anyone who has undergone surgery to the face, neck or mouth the nurse or hygienist will advise individually.

13.3 Brush all the surfaces of the teeth, gums and tongue at least twice a day, using regular toothpaste and toothbrush.

13.4 Advise not to lick their lips as it can make dryness and chapping worse.

13.5 To moisten the lips you can use a moisturising cream or lip balm.

13.6 Artificial saliva or a mouthwash may help if the mouth is dry.

14. MOUTH TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

14.1 Suitable oral food and fluids are started only after consultation and agreement with the clinical team. They will often be phased in as the feed is reduced to ensure that adequate intake is maintained. The nutritional requirements of the patient will be calculated by the dietitian who can then advise on how to adjust the feeding regime.

14.2 If food refusal is the reason for enteral feeding, the tube may be removed when the patient decides to start eating.

15. TROUBLESHOOTING

a) Guideline for enteral feeding devices

Problem	Nursing Intervention	Rationale
Stoma site is red and inflamed. (follow steps 1-3. Contact Abbott Nurse Advisor/ Nutrition Nurse Specialist for advice regarding steps 4-6)	1. The stoma should be cleaned initially twice daily with cooled boiled water or saline and gauze, paying attention to meticulous hygiene. 2. It is advised that the patient should not bathe or immerse the area in water while the stoma is healing (10-14 days). Showering is	Prevent infection occurring

Problem	Nursing Intervention	Rationale
	permitted provided the connector cap is fully closed and some effort is made to keep the stoma site dry. 3. After 2 weeks the patient may bathe as normal. 4. Always ensure the area is dried thoroughly afterwards to prevent infection. 5. If the stoma site becomes red and inflamed, take a swab of the site for microbiological culture. 6. Inform doctor, as antibiotics may be needed. **7.** If site is infected with MRSA, it is recommended to use an antimicrobial solution eg Octenisan® to wash the stoma and apply a dressing if appropriate. (Contact infection control team for advice).	
Stoma site is leaking (Follow steps 1-4. Contact Abbott Nurse Advisor or Nutrition Nurse Specialist for advice regarding steps 5-7)	1. Ensure the external fixator (disc) is 1cm from the skin and the tube is secure (movement of the gastrostomy in and out of the stomach will cause leakage of gastric contents). 2. Ensure the skin around the gastrostomy site is cleaned twice a day with saline and gauze for first 2 weeks, and then mild soap and water from then on, dried thoroughly. 3. Protect the surrounding skin with a skin barrier cream/spray eg Cavilon®. 4. Note when patient last had their bowels opened. Leakage may be due to excessive pressure in the abdomen. 5. Ensure patient is on an acid suppressing drug to reduce acidity of gastric contents. 6. For balloon gastrostomy devices, check water volume in the balloon. Note volume of water in the balloon and compare with recommended volume. Replace with recommended volume of	Reduce leakage of gastric contents and excoriation to skin.

Problem	Nursing Intervention	Rationale
	water. If the amount of fluid in the balloon remains below the recommended volume contact your physical health nurse. It is important not to underfill or overfill your balloon. 7. Dressings can be applied to the gastrostomy stoma when leakage is excessive. Recommend using an absorbent dressing to absorb moisture for example Mepilex dressings (seek advice).	
Potential pain and discomfort following gastrostomy tube insertion or change.	1. Each patient should receive a strong analgesia immediately post procedure and for the following 24-48 hours depending on patients pain experienced. 2. Pain assessment should be done regularly throughout the days following gastrostomy tube insertion. 3. The use of moderate pain relieve is advisable for the first 48 hours post insertion. 4. After 4-5 days the patient should only experience mild discomfort from the gastrostomy tube. A patient who is experiencing severe pain needs urgent referral to the doctor or nurse specialist. 5. Following gastostomy tube changes, mild pain relief eg paracetamol may be helpful.	To reduce patient discomfort and pick up on potential complications.
Over granulation around the stoma site.	Observe the stoma site daily and ensure the site is cleaned as indicated. If over granulation is noted, ensure the tube is secure and the fixator is snug to the skin. Use an appropriate dressing on the site. Refer to your Physical Healthcare Nurse or Abbott Nurse Advisor regarding type of treatment, which may be helpful. Silver nitrate or 1% hydrocortisone cream may be appropriate which needs	Ensuring the gastostomy is secure will prevent tube movement and reduce the incidence of over granulation. Over granulation causes discomfort, infection and bleeding at the site.

Problem	Nursing Intervention	Rationale
	to be prescribed by a doctor. Treatment should be continued for 7-10 days. If over granulation persists seek further advice.	

Diarrhoea

Diarrhoea is a relatively common problem in patients receiving enteral food but is seldom related directly to the feed.

Possible Cause	Nursing Intervention	Rationale
Contaminated feed/equipment	Follow microbiological guidelines. Check sterile handling of feed and equipment.	
GI infection e.g. *Clostridium difficile, Enteropathic E coli*	Stool sample. Reduce rate and consult dietitian. Apply isolation precautions.	
Over rapid infusion of feed	Reduce rate and consult dietician	
Pharmaceutical e.g. antibiotics, laxatives, antacids, NSAID's	Discuss with medical team. Consult Pharmacy and Dietitians	
Feed too cold	Deliver feed at room temperature	
Malabsorption e.g. pancreatic dysfunction, liver disease, coeliac disease	Consider semi elemental / elemental feeding Consult Dietician	
Hypoalbuminaemia	Consult Dietitian	
Inappropriate fibre intake e.g. long-term low residue feed.	Consider fibre feed. Consult Dietitian	

Constipation

Possible Cause	Nursing Intervention	Rationale
Inadequate fluid	Ensure adequate fluid intake	
Drug therapy	Review drugs	
Disease state	Consider fibre feed or appropriate laxative. Consult Dietitian	

Nausea or vomiting

Possible Cause	Nursing Intervention	Rationale
Delayed gastric emptying	Consult Dietitian and Doctor	
Constipation	See above	
Drug therapy	Check drug/nutrient interactions	
Too rapid infusion rate	Reduce rate	

Contaminated feed	Follow microbiological guidelines	
Electrolyte imbalance	Contact Doctor/Dietitian, review blood profiles and correct levels	

Dry or sore mouth

Possible Cause	Nursing Intervention	Rationale
Poor mouth care	Good oral hygiene	

Abdominal distention

Possible Cause	Nursing Intervention	Rationale
Delayed gastric emptying	Reconsider choice of feeding route. Try pro-kinetic drugs.	
Too rapid infusion rate	Reduce rate (consult dietician)	
GI obstruction	Stop feed	
Faecal impaction	Contact team for assessment to ensure patient is not fully impacted.	

Reflux

Possible Cause	Nursing Intervention	Rationale
Too rapid infusion rate	Reduce rate	
Volume too large	Decrease volume of each feed. Consult Dietician	
Poor position	Keep head elevated at 30 degrees minimum while feeding and ½ hour after. (45-90 degrees may be necessary)	
Delayed gastric emptying	Consult Dietician. Reconsider choice of feed	
Decreased GI function	Consult Dietitian. Consider drugs to alter gut motility. Assess for decreased bowel sounds, abdominal distension, nausea, vomiting.	
Gastritis	Discuss appropriate medication with team eg: H2 receptor antagonist	

Blocked Tube

Possible Cause	Nursing Intervention	Rationale
Insufficient flushing - not flushing or inadequate flushing of the tube between feeds and before and after medication	Flush with water regularly	
Drug administration	Follow drug administration guide	

Possible Cause	Nursing Intervention	Rationale
Kinked tube / clamp left on	Check tube for obstruction – ensure all clamps are left open	
Back up / curdling gastric contents in gastrostomy tube	Clamp tube between feeds to prevent gastric backflow	

To relieve a blockage:

Never use excessive force and never insert objects (eg guide-wire) into the tube as this could damage the gastric mucosa:

(i) connect 50 ml syringe to the end of tube and try to draw back (aspirate) any excess fluid,

(ii) flush with warm water (helps dissolve fat globules) and leave for up to 30 minutes. Try to flush again and if unsuccessful, withdraw fluid and repeat,

(iii) flush with sparkling water; leave the solution in the tube for several minutes, massaging the tube if possible. Repeat above procedure,

(iv) if the tube remains blocked, contact the organisation that inserted the tube, as they will need to replace it,

(v) there are also commercial products to relieve blockages. They are expensive and not always effective.

16. RECORDING AND DOCUMENTATION

16.1 Details of the multidisciplinary decision to feed enterally and details of each stage of the procedure must be recorded in the patient's notes by the appropriately trained practitioners involved.

16.2 Feed and water flushes should be recorded on a daily fluid balance chart (Trust standard Fluid Chart Appendix 7). Feeds should be signed for on the prescription chart.

17. TRAINING AND SUPPORT

17.1 Only health professionals that can evidence on going competence in insertion of tubes, administration of feed and tube care.

17.2 Health professionals that are involved in the care of patients that have enteral feeding require competency based training on the administration of feed (pump/bolus), stoma/tube care. An update will be required every three years and competencies will be required to be assessed.

17.3 All staff must be able to assess their own competency; clinical staff should identify their continuing professional development needs through appraisal and supervision.

18. MONITORING

18.1 Qualified Healthcare Professionals with relevant skills and training should review the indications, route, risks, benefits and goals of nutrition support at regular intervals. The time between reviews depends on the patient, care setting and duration of nutrition support. Intervals may increase as the patient is stabilised on nutrition support. (NICE Clinical Guideline 32 Feb.2006 Nutrition Support in Adults: Oral Nutrition Support, Enteral Tube Feeding and Parenteral Nutrition. The dietitian must be regularly informed of any problems or changes.

18.2 NICE has provided comprehensive protocols for anthropometric, ie comparative body measurements which can be compared to standard measurements to determine body composition, clinical and laboratory monitoring of nutrition support.

18.3 NICE protocol for nutritional, anthropometric and clinical monitoring of nutrition support (Appendix 8).

18.4 NICE protocol for laboratory monitoring of nutrition support (Appendix 9).

18.5 This is particularly relevant to intravenous nutrition but may be selectively applied when enteral nutrition support is used for people who are metabolically unstable or at risk of re feeding syndrome.

18.6 The Senior Mental Health Dieticians will develop an implementation plan. They will identify any barriers to the processes described in this Policy and/or substantive changes in current practice requiring inclusion in the implementation plan.

18.7 The application of this Policy will be monitored by the Trust Physical Health Strategy Group, via audit of implementation of NICE guidelines and CQC.

18.8 **Diabetic Monitoring**

Illness increases blood glucose levels and enteral feeds are quickly absorbed. In diabetic patients, blood glucose should initially be monitored every 4 to 6 hours in case an increase in diabetic medication is required. Check medications with Pharmacy before giving via the feeding tube. Parenteral and Enteral Nutrition Group of the British Dietetic Association (PENG) Group Guidelines suggest that blood glucose be maintained between 5.5 – 11 mmol/l in stressed patients and then tightened to 5.5 – 8.5 mmol/l once control is established.

19. Equality and Human Rights Analysis

Title: Enteral Feeding Clinical Guidance
Area covered: Trust-Wide

What are the intended outcomes of this work?
Enteral feeding is a means of delivering nutrition into the gastrointestinal tract through a tube, either via the nose or directly into the stomach or small intestine through a stoma in the intestinal wall. This method of feeding is only necessary/desirable when a patient's nutritional needs cannot be met orally, for various possible reasons.

The Enteral Feeding Clinical Guidance document has been developed for all Medical, Nurses and Health Care Professionals (with the skills and completed training to care for patients who are enterally fed), to act a point of reference or guide: To ensure they act in a safe and effective manner to minimise all potential risks and harm to the patient.

Who will be affected?
Patients who require enteral feeding.
Staff who need to ensure that they follow the guidelines in a safe manner.

Evidence

What evidence have you considered?
This guidance.
The previous equality and human rights assessment (2012).

Disability (including learning disability)
Disability issues considered as below:
Capacity issues are clearly identified and support mechanisms in place.
(See below) Feeding against the will of the patient.

Feeding against the will of the patient should be an intervention of the last resort in the care and management of those with severe eating disorders or other mental illness. It should be considered in the context of the Mental Health Act 1983, the Mental Capacity Act 2005 or the Children Act 1989 (and their respective Codes of Practice).

Where the Mental Capacity Act 2005 is used to authorise enteral feeding the patient should be assessed to see if additional authorisation under the Deprivation of Liberty Safeguards apply.

All mental capacity assessments must be Mental Capacity Act 2005 compliant (please refer to Trust Policies MC01 – MC04 inclusive).

For a detailed analysis and step-by-step guidance to the administration of enteral feeding in all circumstances, please refer to Appendix 1: *MENTAL CAPACITY, CONSENT & HOSPITAL IN-PATIENT ADMISSION FOR THE ASSESSMENT, CARE and TREATMENT OF ENTERAL*

FEEDING. Diabetic Monitoring**:** included in the guidelines and mouth care.
Sex No issues identified within discussions.
Race No issues identified within discussions.
Age Please see comments in disability section above.
Gender reassignment (including transgender) No issues identified within discussions.
Sexual orientation No issues identified within discussions.
Religion or belief No issues identified within discussions.
Pregnancy and maternity No issues identified within discussions.
Carers No issues identified within discussions.
Other identified groups No issues identified within discussions.
Cross Cutting No issues identified within discussions.

Human Rights	**Is there an impact?** **How this right could be protected?**
Right to life (Article 2)	These guidelines are supportive of a human rights based approach to health care. The guidelines are not intended for patients who are seriously physically ill however enteral feeding may be used in the following: Food/fluid refusal or hunger strike to preserve life. • Psychiatric disease eg anorexia nervosa, severe depression. • Neurological problems. • Swallowing disorders. Stroke or head injury.
Right of freedom from inhuman and degrading treatment (Article 3)	This policy sets out to promote dignity and respect Enteric feeding will only be used as an intervention as a last resort. Where it is used this should be considered in relation to and in the context of the Mental health Act 1983, The Mental Capacity Act 2005, The Children's Act 1989 . The policy makes it clear that where the Mental Capacity Act 2005 is used to authorise enteral feeding the patient should be assessed to see if additional authorisation under the Deprivation of Liberty safeguards apply.
Right to liberty (Article 5)	No issues identified within discussions.

Right to a fair trial (Article 6)	No issues identified within discussions.
Right to private and family life (Article 8)	No issues identified within discussions.
Right of freedom of religion or belief (Article 9)	No issues identified within discussions.
Right to freedom of expression Note: this does not include insulting language such as racism (Article 10)	No issues identified within discussions.
Right freedom from discrimination (Article 14)	No issues identified within discussions.

Engagement and Involvement

With thanks to the Dietetic Departments of West Middlesex University Hospital and Charing Cross Hospital and West London Mental Health NHS Trust.

Summary of Analysis

Eliminate discrimination, harassment and victimisation

These guidelines are supportive of a human rights based approach.
There should be minimal impact in relation to discrimination.
Safeguards are place re capacity and consent issues. Flow chart included for staff re consent and capacity.

Advance equality of opportunity

N/A

Promote good relations between groups

N/A

What is the overall impact?

The overall impact should be positive. The guidelines are in place to support patients/service users.

Addressing the impact on equalities

No negative impact detected regards the protected groups.

Action planning for improvement
N/A

For the record

Name of persons who carried out this assessment:
George Sullivan
Anna Ashton
Michelle Barton

Date assessment completed:
28th February 2017

Name of responsible Director:
Executive Director of Nursing & High Secure Services

Date assessment was signed:
February 2017

Action plan template

This part of the template is to help you develop your action plan. You might want to change the categories in the first column to reflect the actions needed for your policy.

Category	Actions	Target date	Person responsible and their area of responsibility
Monitoring			
Engagement			
Increasing accessibility			

PACK 1: MENTAL CAPACITY, CONSENT & HOSPITAL IN-PATIENT ADMISSION, ASSESSMENT, CARE and TREATMENT

MENTAL CAPACITY, CONSENT & HOSPITAL IN-PATIENT ADMISSION FOR THE ASSESSMENT, CARE and TREATMENT OF ENTERAL FEEDING

FLOW CHART 1.1 **Where P is to receive enteral feeding for mental disorder alone**

FLOW CHART 1.2 **Where P is to receive enteral feeding for a physical disorder unrelated to her/his mental disorder**

FLOW CHART 1.3 **Where P is to receive enteral feeding for both a mental disorder and a related physical disorder**
(ie. a. The mental disorder is a symptom of or adversely affects the physical disorder
b. The physical disorder is a symptom of or adversely affects the mental disorder)

FLOW CHART 1.4 **Applying the GJ Case and the *'But For...'* Test**

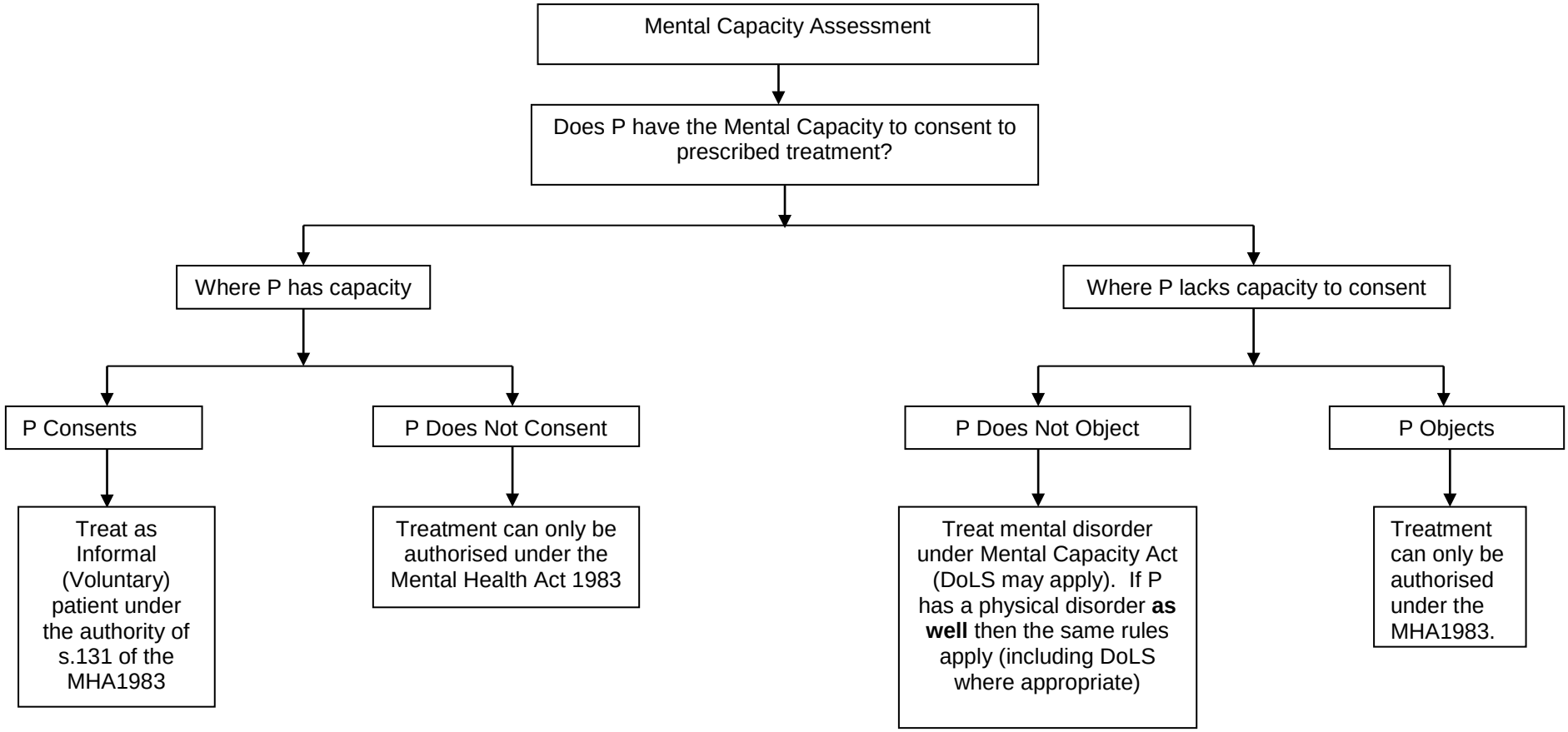
FLOW CHART 1.5 **Advance Decisions, Lasting Power of Attorney, Court Appointed Deputy and Court of Protection Decisions**

FLOW CHART 1.6 **Where P is under 18 years of age and is being considered for hospital in-patient admission, assessment, care & treatment.**

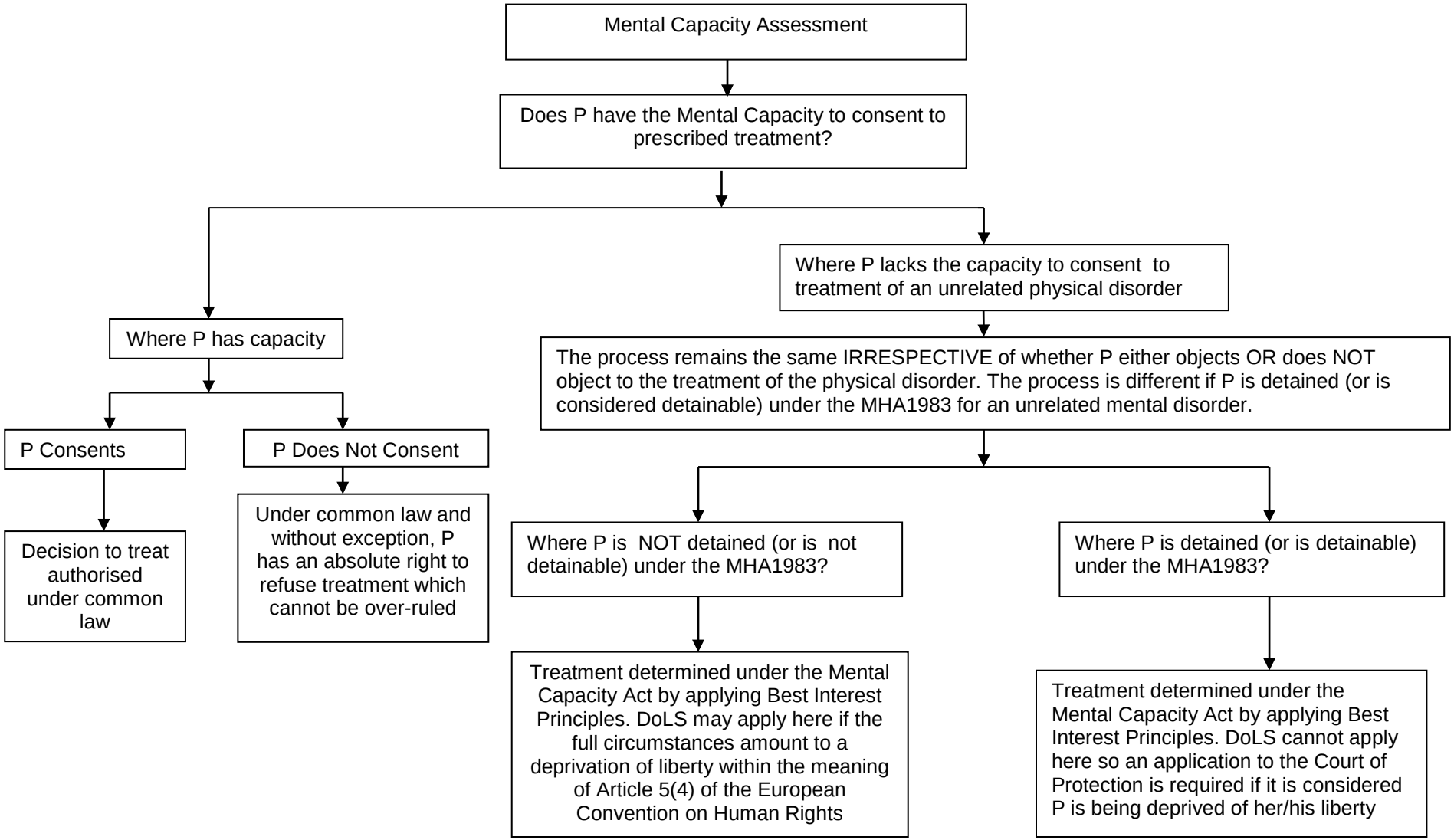
The processes are different in circumstances where P is being managed in an establishment that is not a hospital.

IF IN DOUBT AND WHEREVER PRACTICABLE, PRACTITIONERS SHOULD SEEK LEGAL ADVICE PRIOR TO ADMITTING/TREATING P (Normal office hours: The Trust's legal team; Out of Hours: One of the Trust's Firms of Solicitors authorised through Bronze On-Call)

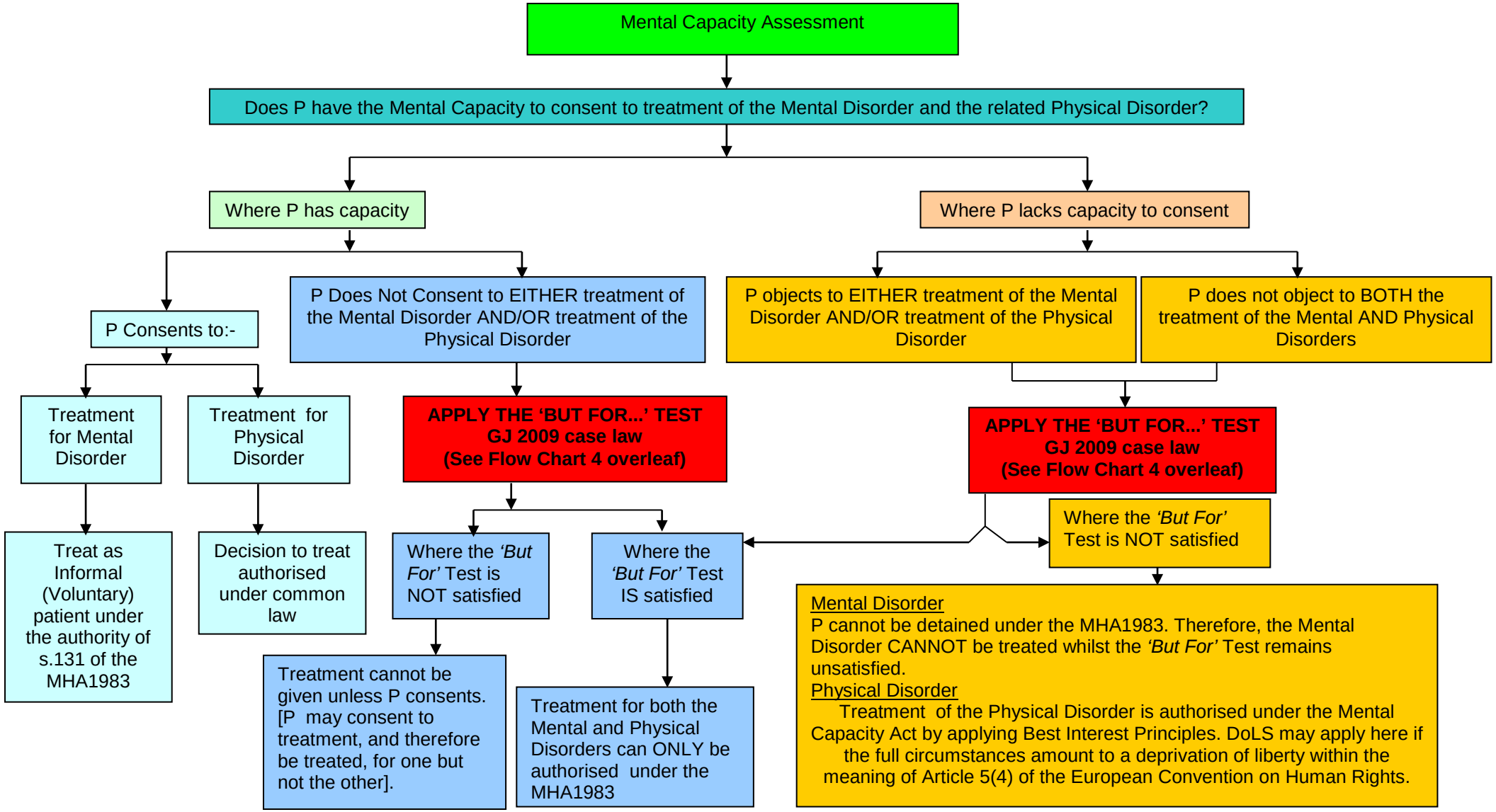
FLOW CHART 1.1 Where P is to receive enteral feeding for mental disorder alone



FLOW CHART 1.2 Where P is to receive enteral feeding for a physical disorder unrelated to her/his mental disorder

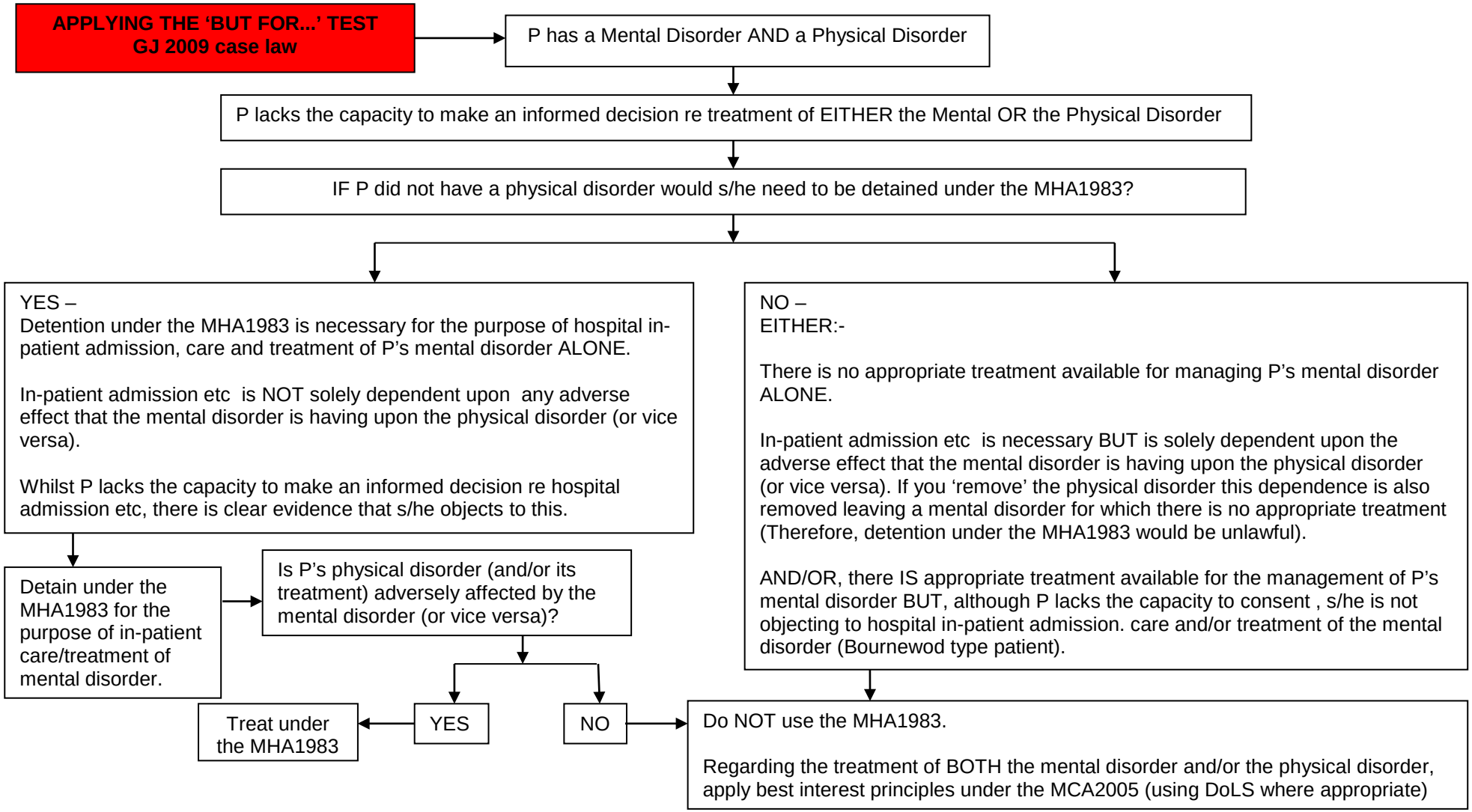


FLOW CHART 1.3 Where P is to receive enteral feeding for both a mental disorder and a related physical disorder
(ie. a. The mental disorder is a symptom of or adversely affects the physical disorder
b. The physical disorder is a symptom of or adversely affects the mental disorder)

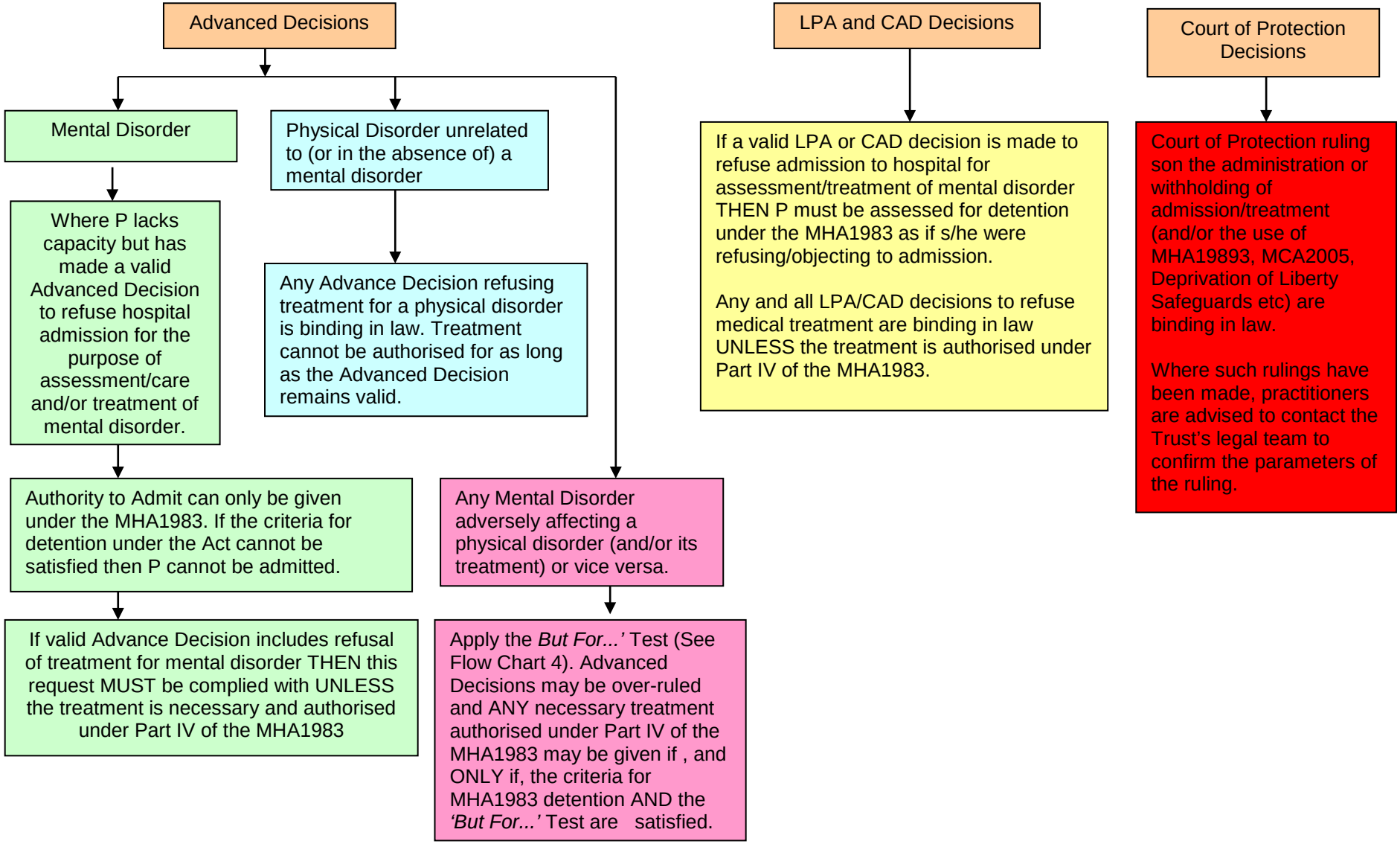


FLOW CHART 1.4 ***GJ v The FT and The PCT and the Secretary of State for Health [2009] EWHC 2972 (Fam)***

Applying the GJ Case and the '*But For...*' Test



FLOW CHART 1.5 Advance Decisions, Lasting Power of Attorney (LPA), Court Appointed Deputy (CAD) and Court of Protection Decisions



FLOW CHART 1.6 Where P is under 18 years of age and is being considered for hospital in-patient admission, assessment, care & treatment of enteral feeding

Mental Health Act Code of Practice (2008 ed):-

"36.3 The legal framework governing the admission to hospital and treatment of children is complex, and it is important to remember a number of factors. Those responsible for the care of children and young people in hospital should be familiar with other relevant legislation, including the Children Acts 1989 and 2004, Mental Capacity Act 2005 (MCA), Family Law Reform Act 1969, Human Rights Act 1998 and the United Nations Convention on the Rights of the Child, as well as relevant case law, common law principles and relevant codes of practice." (p.327)

↓

Admission and Treatment of Physical Disorders

The above applies equally to treatment of physical disorders (as with the adult, the Mental Health Act 1983 may apply in circumstances where a mental disorder adversely affects a physical disorder, or its treatment (or vice versa) provided that the GJ *'But For...'* Test is satisfied (See Flow Chart Pack 1, 1.4).

↓

Different Rules apply for those persons between the age of 16-17 years and those who are under the age of 16 years.

Parental Responsibility may or may not apply dependent upon the circumstances.

↓

Practitioners must, at the very least be fully conversant with Chapter 36 of the MHA1983 Code of Practice and Chapter 12 and the relevant sections in Chapters 8 and 15 of the MCA2005 Code of Practice (as well as the additional legislation highlighted above – see MHA1983 Code of Practice 36.3 above).

IF IN DOUBT (AND WHEREVER PRACTICABLE):-
PRACTITIONERS SHOULD SEEK LEGAL ADVICE PRIOR TO ADMITTING/TREATING P (Normal office hours: the Trust's legal team; Out of Hours: One of the Trust's Firms of Solicitors authorised through Bronze On-Call)

Appendix 2

Tube Feeding Regime

Patient Name: **DOB:** **Ward:**

Name of feed and amount	Feed Rate	Fluid Regime

Feeding regimen provides: Energy kcals Protein g Fluid mls

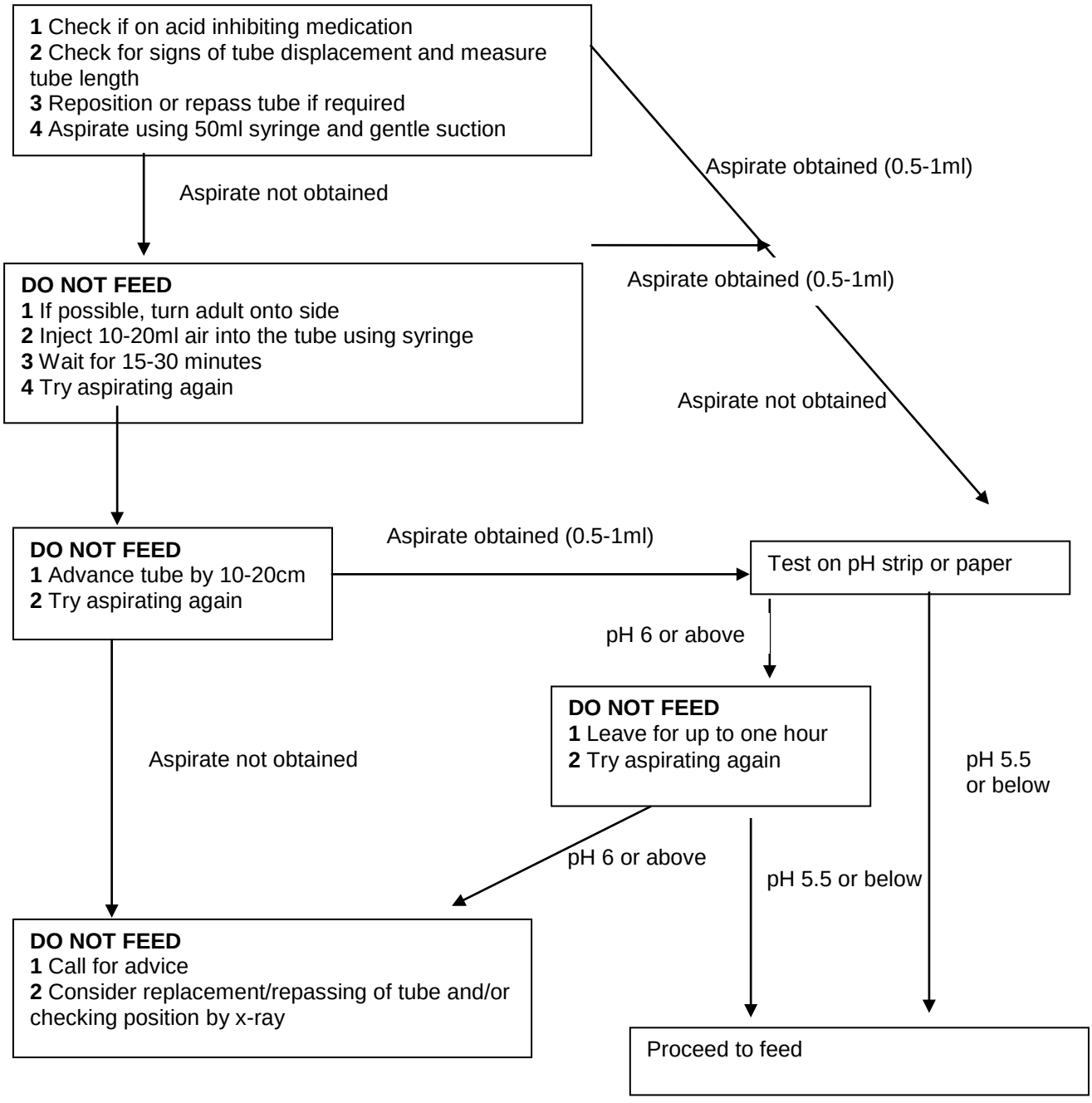
Comments:

- Patient should upper body should be elevated at a 30^0 angle while feeding and for ~1 hour post feed to reduce risk of reflux/aspiration.
- Change giving sets every 24 hours
- Feed must not be stored open or hang for over 24 hours

Dietitian Name: Tel Bleep

Appendix 3

Confirming the correct position of nasogastric feeding tubes in ADULTS



CAUTION: If there is ANY query about position and/or the clarity of the colour change on the pH strip, particularly between ranges 5 and 6, then feeding should not commence.

The information in this document was originally developed by the National Nurses Nutrition Group (NNNG) and further developed in collaboration with the Medicines and Healthcare products Regulatory Agency (MHRA), the National Patient Safety Agency (NPSA), NHS clinicians, risk managers and other leading experts in the field. The Patient Safety Research Programme at the University of Birmingham has commissioned additional research to assess these methods further. This advice may therefore be revised following the outcome of this work.

Appendix 4

Confirming the correct position of nasogastric feeding tubes in ADULTS

Nasogastic tube position confirmation record

Patient name:
NHS Number / Hospital Number:
DOB:
Ward:

The position of the nasogastric tube should be checked:

- Following initial insertion (please use placement checklist to record this).
- Before administering each feed.
- Before giving medications.
- Any new or unexplained respiratory symptoms or if oxygen saturations decrease.
- At least once daily episodes of vomiting, retching or coughing spasms.
- When there is suggestion of tube displacement.

If you are not able to confirm that the tube is in the stomach stop the procedure and do not proceed any further. Alert the medical team immediately.

Date							
Time							
pH							
External tube length							
Checked by:							
Date							
Time							
pH							
External tube length							
Checked by:							

If any new or unexplained respiratory symptoms, contact medical team immediately and stop feed.

Appendix 5

Nasogastric Feeding Bedside Chart

Nastogastric Tube Placement Bedside Checklist

This bedside checklist should be completed for all patients requiring nasogastric tube placement, on insertion and on all subsequent insertions, before administration of artificial nutrition or medication via the nasogastric tube.

Patient Name:
NHS Number/Hospital Number:
DOB:
Ward:

Nasogastric tube insertion/re insertion

Date and time of insertion/re insertion					
NEX measurement					
External length once secured					
Nostril used on insertion/ re insertion L/R					
Aspirate obtain- Y/N					
PH of aspirate (if obtained)					
X- ray required Y/N					
Inserted by:					

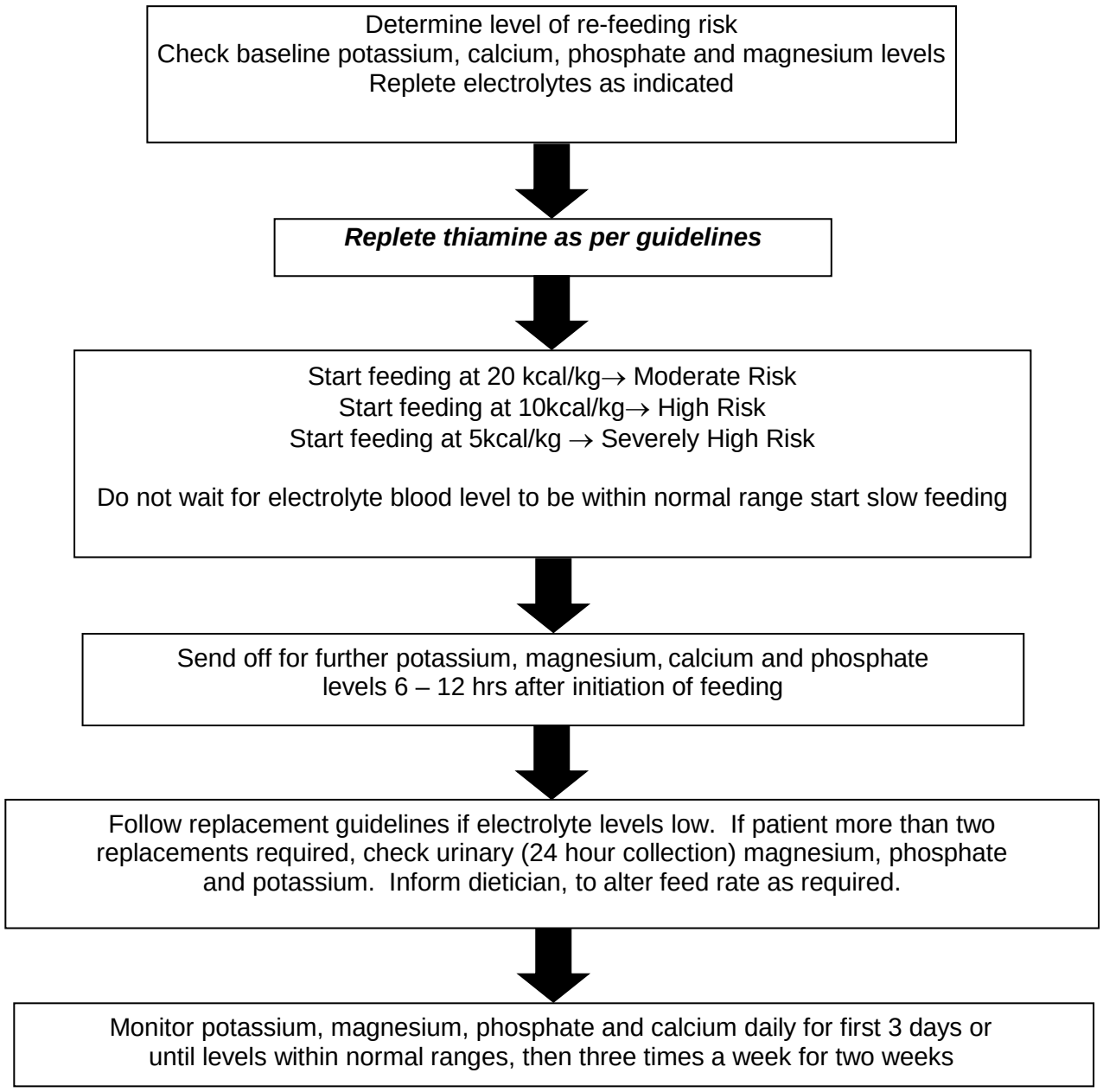
X- ray interpretation (if applicable)

Date and time of X-ray interpretation					
Is this the most current X-ray Y/N					
Is the X-ray for the correct patient Y/N					
X-ray results eg NG has past level of diaphragm and deviates to left. It is safe to feed via NGT					
X-ray interpretation by:					

Appendix 6

Guideline Summary
Oxford Recommendations – Refeeding Syndrome Flow Chart

See full guidelines for definition and list of at risk patients



MONITORING the severely at risk – Restore circulatory volume and monitor fluid balance and overall clinical status closely. Monitor <u>cardiac rhythm continually in these patients and any other who develop cardiac arrhythmias (NICE 2006)</u>

Appendix 7

Fluid Chart

Fluid Balance Chart:

Name:	**Date:**
Date of Birth:	**X or patient number:**
Ward:	**Food / fluid allergies:**
Specialist fluid requirements (eg Fluid restriction):	**Requires assistance: Yes/No** **Comments (eg Feeder cups):**

Time	Fluid Type	Route- oral	Amount- mls	Total input- mls	Output- mls	Total output- mls	Signature
08.00							
09.00							
10.00							
11.00							
12.00							
13.00							
14.00							
15.00							
16.00							
17.00							
18.00							
19.00							
20.00							
21.00							
22.00							
23.00							
00.00- 02.00							
02.00- 04.00							
04.00- 06.00							
06.00- 08.00							
Total							

Appendix 8

NICE protocol for nutritional, anthropometric and clinical monitoring of nutrition support

Parameter	Frequency	Rationale
Nutritional		
Nutrient intake from oral, enteral or parenteral nutrition (including any change in conditions affecting food intake)	Daily initially, reducing to twice weekly when stable	To ensure that patient is receiving nutrients to meet requirements and that current method of feeding is still the most appropriate. To allow alteration of intake as indicated.
Actual volume of feed delivered	Daily initially, reducing to twice weekly when stable	To ensure that patient is receiving correct volume of feed. To allow troubleshooting.
Fluid balance charts	Daily initially, reducing to twice weekly when stable	To ensure patient is not becoming over/under hydrated.
Anthropometric		
Weight	Daily if concerns regarding fluid balance, otherwise weekly reducing to monthly	To assess ongoing nutritional status, determine whether nutritional goals are being achieved and take into account both body fat and muscle.
BMI	Start of feeding and then monthly	
Mid-arm circumference	Monthly if weight cannot be obtained or is difficult to interpret	
Triceps skinfold thickness	Monthly if weight cannot be obtained or is difficult to interpret	
GI function		
Nausea/vomiting	Daily initially, reducing to twice weekly	To ensure tolerance of feed

Bowel function	Daily initially, reducing to twice weekly	To rule out diarrhoea and constipation and assess tolerance of feed
Abdominal distension	As necessary	Assess tolerance of feed
Enteral tube – nasally inserted		
Gastric tube position (pH ≤ 5.5 or noting position of markers on tube once initial position has been confirmed)	Before each feed begins	To ensure tube in correct position
Nasal erosion	Daily	To ensure tolerance of tube
Fixation (is it secure?)	Daily	To help prevent tube becoming dislodged
Is tube in working order (all pieces intact, tube not blocked/kinked)?	Daily	To ensure tube is in working order
Gastrostomy or jejunostomy		
Stoma site	Daily	To ensure site not infected/red, no signs of gastric leakage
Tube position (length at external fixation)	Daily	To ensure tube has not migrated from/into stomach and there is no external over-granulation
Tube insertion and rotation (gastrostomy without jejunal extension only)	Weekly	Prevent internal overgranulation/prevention of buried bumper syndrome
Balloon water volume (balloon retained gastrostomies only)	Weekly	To prevent tube falling out
Jejunostomy tube position by noting position of external markers	Daily	Confirmation of position
Clinical condition		
General condition	Daily	To ensure that patient is tolerating feed and that feeding and route continue to be

		appropriate
Temperature/blood pressure	Daily initially and then as needed	Sign of infection/fluid balance
Drug therapy	Daily initially, reducing to monthly when stable	Appropriate preparation of drug (to reduce incidence of tug blockage). To prevent/reduce drug nutrient interactions
Long/short-term goals		
Are goals being met?	Daily initially, reducing to twice weekly and then progressively to 3-6 monthly, unless clinical condition changes	To ensure that feeding is appropriate to overall care of patient
Are goals still appropriate?	Daily initially, reducing to twice weekly and then progressively to 3-6 monthly unless clinical condition changes	To ensure that feeding is appropriate to overall care of patient

Appendix 9

NICE protocol for laboratory monitoring of nutrition support

Parameter	Frequency	Rationale	Interpretation
Sodium, potassium, urea, creatinine	Baseline Daily until stable Then 1 or 2 times a week	Assessment of renal function, fluid status, and Na and K status	Interpret with knowledge of fluid balance and medication. Urinary sodium may be helpful in complex cases with gastrointestinal fluid loss
Glucose	Baseline 1 or 2 times a day (or more if needed) until stable Then weekly	Glucose intolerance is common	Good glycaemic control is necessary
Magnesium, phosphate	Baseline Daily if risk of refeeding syndrome Three times a week until stable Then weekly	Depletion is common and under recognised	Low concentrations indicate poor status
Liver function tests including International Normalised Ratio (INR)	Baseline Twice weekly until stable Then weekly	Abnormalities common during parenteral nutrition	Complex. May be due to sepsis, other disease or nutritional intake
Calcium, albumin	Baseline, then weekly	Hypocalcaemia or hypercalcaemia may occur	Correct serum Ca concentration for albumin Hypocalcaemia may be secondary to Mg deficiency Low albumin reflects disease not protein status
C-reactive protein	Baseline Then 2 or 3 times a week until stable	Assists interpretation of protein, trace element and vitamin results	To assess the presence of an acute phrase reaction (APR). The trend of results

			is important
Zinc, copper	Baseline Then every 2-4 weeks, depending on results	Deficiency common, especially when increased losses	People most at risk when anabolic APR causes decreased Zn and increased Cu
Selenium *Primarily for people having parenteral nutrition in the community*	Baseline if risk of depletion Further testing dependent on baseline	Se deficiency likely in severe illness and sepsis or long-term nutrition support	APR causes reduced Se. Long-term status better assessed by glutathione peroxidase
Full blood count and MCV	Baseline 1 or 2 times a week until stable Then weekly	Anaemia due to iron or folate deficiency or folate deficiency is common	Effects of sepsis may be important
Iron, ferritin	Baseline Then every 3 to 6 months	Iron deficiency common in long-term parenteral nutrition	Iron status difficult if APR (Fe↓, ferritin↑)
Folate, B12	Baseline Then every 2-4 weeks	Iron deficiency is common	Serum/B12 sufficient with full blood count
Manganese *Rarely needed for people on enteral tube feeding unless there is cause for concern*	Every 3-6 months if on home parenteral nutrition	Excess provision to be avoided, more likely if liver disease	Red blood cell or whole blood better measure of excess than plasma
25-OH Vit D *Rarely needed for people on enteral tube feeding unless there is cause for concern*	Rarely needed if on long-term support	Low if housebound	Requires normal kidney function for effect
Bone densitometry *Rarely needed for people on enteral tube feeding unless there is cause for concern*	On starting home parenteral nutrition then every 2 years	Metabolic bone disease diagnosis	Together with lab tests for metabolic bone disease