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Nasogastric Insertion and Management for Adult Eating Disorders (In-Patient)

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Contents

1 Introduction

Nasogastric and orogastric feeding has been common practice within healthcare in all patient groups. Thousands of nasogastric feeding tubes are inserted daily without incident, however there is a small risk that the nasogastric feeding tube can be misplaced in the lungs during insertion or can migrate out of the stomach at a later stage.

The introduction of enteral feed, fluids or medication into the respiratory tract, lungs or pleura via a misplaced nasogastric tube is categorised as a 'Never Event'. Use of misplaced nasogastric tubes was first recognised as a patient safety issue by the National Patient safety Agency (NPSA) in 2005 and three further alerts were issued by the NPSA and NHS England between 2011-2013 (NHS Improvement, 2016).

Between September 2011 and March 2016, 95 incidents were reported to the NRLS where enteral feed, fluids or medication were introduced into the respiratory tract or pleura via misplaced nasogastric tubes. These incidents show that risk to patient safety persist with misinterpretation of x-rays by medical staff who have not received the required competency-based training as the most common type of error; other errors include ineffective pH testing, unapproved placement checks and communication failures. The incidents reported to the NRLS have involved multiple clinical staffing groups including medical, nursing, and ambulatory care staff. This procedure reflects the NPSA guidance (2011, 2016).

Administration of enteral feeding, fluids, or medication through a misplaced tube into the respiratory tract or pleura instead of the stomach can be fatal. This procedure has been developed to support clinical staff in the correct insertion of both wide and fine bore nasogastric (NG) feeding tubes and in the confirmation of tube placement to reduce risk to patients in line with current evidence-based practice and RMMO.

This procedure is critical to the delivery of Our Journey to Change and our ambition to co-create safe and personalised care that improves the lives of people with mental health needs, a learning disability or autism. It helps us deliver our three strategic goals as follows:

This procedure supports the trust to co-create a safe intervention to improve the experience for patients with the involvement of carers and families.

2 Purpose

Following this procedure will help the Trust to: -

- To promote a clear, consistent, and evidenced based approach to the insertion, care, and management of Nasogastric (NG) tubes.
- To support the information provided by the Royal Marsden Manual On-line.
- To promote the safety and well-being of all patients who require NG enteral feeding.

- This procedure has been developed with evidence and guidance from the National Patient Safety Agency (NPSA) Alerts, Field Safety Notices (FSN) and the Medicines and Healthcare Products Regulatory Agency (MHRA).
- To provide clinical staff with supplementary evidence for managing adult patients requiring enteral feeding with a Mental Health and/or Learning Disability diagnosis.

2.1 Exceptions to purpose

This procedure is primarily for use with adults who have a diagnosis of an eating disorder. The insertion and management of a NG can only be implemented in practice by clinicians who are trained and deemed competent in this procedure. The NG procedure is not designed for use outside of a specific eating disorder in-patient setting. If NG feeding is considered an option in another clinical area in the trust this would require escalation for senior management approval.

Children and Adolescent Mental Health Services (CAMHS):
Please refer to the separate relevant local CAMHS / Paediatric pathways for information in relation to assessment of refeeding syndrome and nasogastric feeding.

2.2 Objectives

The objectives of this procedure are to:

- Ensure a standardised approach to the NG Insertion and Management is maintained by TEWV Trust staff.
- To prevent the risk of harm to patients who require NG insertion and feeding.
- Ensure that safe and consistent treatment is offered to all patients within the inpatient eating disorders ward.
- Ensure that TEWV Trust staff are aware of the importance of safe NG insertion and management of NG tubes including the significance of a holistic, person-centred approach to care delivery.
- Support the implementation of high-quality healthcare Trust wide.

3 Who this procedure applies to

This procedure applies to all staff working within TEWV NHS Foundation Trust who have a responsibility for insertion and safe management of NG tubes in eating disorders. Although the procedure applies to all healthcare professionals, key roles and responsibilities are outlined in Section 3.1 Roles and Responsibilities.

Individual consideration will be part of the intervention to place a NG. At all times the patient will be part of and involved in the process. If needed adaptions and change to the process will be made

to respect and consider the individual needs of the patient. The Human Rights Act 1998 must be always taken into consideration when implementing this clinical intervention.

3.1 Roles and responsibilities

Role	Responsibility
Chief Nurse	• Responsible for ensuring that all Registered Nursing Staff are aware of this procedure, and other policies, guidance and procedures which relate to this procedure. • Responsible for ensuring that adequate training is given to allow Registered Nursing staff to implement this procedure. • Responsible for the development, review and monitoring of this procedure and associated practice standards regarding physical healthcare provision. • Responsible for the provision of appropriate training and education to support physical healthcare provision.
Directors of Operations, Associate Directors, General Managers / Service Managers	• Be fully aware of the contents of this procedure and other policies, guidance and procedures which relate to this procedure. • Responsible for ensuring that systems and processes are in place to monitor and meet the requirements outlined within this procedure.
Matrons and Ward Manager of the Inpatient Eating Disorder Service	• Be fully aware of the contents of this procedure and other policies, guidance and procedures which relate to this procedure. • Responsible for ensuring that staff have read and have an awareness of the procedure. • Responsible for ensuring that staff undertake appropriate training required to perform their role and to achieve and maintain a level of competence in relation to physical healthcare. • Responsible for ensuring that systems and processes to monitor training compliance are implemented.
Registered Nurses within the Inpatient Eating Disorder Service	• Be fully aware of the contents of this procedure. • Responsible for undertaking the appropriate training required to perform their role and to achieve and maintain a level of competence. • Responsible for undertaking appropriate continual professional development in relation to physical health.

	• Responsible for maintaining an appropriate knowledge base in relation to physical healthcare required to perform the role. • Responsible for the ongoing management of NG tube. • Responsible for completing all relevant documentation in relation to NG placement and management.
Dietetics and Pharmacy	• Responsible for the implementation and prescription of the feeding regime.

4 Related Documents

The Physical Health and Wellbeing Policy (Inpatients and Community) CLIN-0084 must read, understood and clinicians be trained in before carrying out the procedures described in this document.

This procedure also refers to: -

- ✓ Royal Marsden Manual Online (RMMO)
- ✓ Medical Devices Policy
- ✓ Standard (Universal) Infection Prevention and Control Precautions
- ✓ Hand Hygiene Procedure
- ✓ Decontamination of Equipment Procedure
- ✓ Safe use of Physical Restraint Techniques
- ✓ Procedure for Using the Early Warning Score for the Early Detection and Management of the Deteriorating Patient
- ✓ Consent to Examination or Treatment Policy
- ✓ Human Rights, Equality Diversity and Inclusion Policy
- ✓ Interpreting and Translation Policy
- ✓ Interpreting and Translation Guidance

5 Nasogastric management and the insertion process

5.1 Duration of NGT feeding

NGT feeding is usually a short-term measure, must never be used for longer than necessary, and can be tailed off as oral intake improves with psychological and nursing support. NGT feeding may reduce opportunities to eat meals/snacks and occasionally the tube could be used for self-harm (e.g., as a ligature) so a risk assessment is required. Some patients may require NGT feeding for several months while others, despite poor physical health, will be able to eat sufficiently within hospital settings having previously refused in the community. It should never be presumed that just because a patient requires hospital admission they would refuse to or be unable to eat. Nasogastric tube feeding is an option for patients who require short term enteral nutrition and

feeding i.e., 4-6 weeks. It can also be used to administer fluids and some prescribed medications to the stomach.

5.2 Continuous and intermittent feeding

Delivering a constant and controlled supply of nutritional replacement via continuous NGT feed is likely to be the safest way of minimising refeeding risk in the severely ill patient. However, intermittent or bolus feeding may be more appropriate for some patients, reflecting the pattern of normal food intake. Bolus feeding may reduce the opportunity for the patients to tamper with the feed and reduces the length of time of feeding when the patient is distressed. Hence, it is often the preferred method in specialist units.

5.3 Associated risks

As an invasive procedure all staff involved in the insertion and management of a nasogastric (NG) tube must be aware of the following associated risks which include, but are not limited to:

- Misplacement of the tube
- Perforation
- Pneumothorax
- Aspiration

5.4 Indications for Nasogastric Feeding

NG tube feeding is suitable for patients who:

- Are malnourished and/or cannot fulfil adequately their individual fluid requirements orally.
- Have a functioning GI tract.
- Require short-term tube feeding.
- Have been unable to fulfil their nutritional requirements with normal /modified diet +/- nutritional supplements.
- Are not predicted to fulfil their nutritional requirements with normal / modified diet +/- nutritional supplements.
- Have increased nutritional requirements e.g., sepsis, trauma, post-op stress & burns, anorexia nervosa.

- Have a diagnosis of dysphagia which means they cannot manage consistently sufficient nutrition and/or fluids to meet their needs.
- Require prescribed medications which they are unable to consistently swallow.
- Have altered levels of consciousness which make it very difficult for them to manage consistently adequate amounts of nutrition, hydration, or prescribed medications.
- Experience regular and at times prolonged episodes of food refusal e.g., anorexia nervosa, pervasive refusal disorder, which can result in a very limited oral intake and a high malnutrition risk.

(NB This is not an exhaustive list, other conditions/reasons may be considered on an individual basis)

Nutrition support should be considered in people who are malnourished, as defined by any of the following:

- a BMI of less than 18.5 kg/m2
- unintentional weight loss greater than 10% within the last 3–6 months
- a BMI of less than 20 kg/m2 and unintentional weight loss greater than 5% within the last 3–6 months.
- Nutrition support should be considered in people at risk of malnutrition who, as defined by any of the following:
- have eaten little or nothing for more than 5 days and/or are likely to eat little or nothing for the next 5 days or longer.
- have a poor absorptive capacity, and/or have high nutrient losses and/or have increased nutritional needs from causes such as catabolism.

6 Contra-indications to the placing of nasogastric tubes

6.1 Absolute contraindications

- Non-functioning GI tract e.g., ileus
- Complete obstructive pathology in oropharynx, oesophagus preventing passage of the tube (e.g., stricture, tumour)
- Large gastric aspirate and/or high risk of aspiration (includes mechanical pyloric obstruction due to tumour or stricture)
- Intractable vomiting not resolved by adequate anti-emetic.
- Significant known allergies to the nasogastric tube and/or securing material where appropriate alternatives cannot be sourced.

6.2 Relative contraindications

- CPAP (mask)
- Basal skull fracture, as the tube may enter the brain if mispositioned - in this instance insertion needs to be under direct vision with a laryngoscope or nasoendoscopy (if not available the orogastric route may be used as an alternative)
- Oesophageal varices
- Severe gastro oesophageal reflux disease
- Mucositis
- Vomiting responding to anti-emetics.
- Anatomical deformities including maxillofacial disorders, surgery, or physical trauma to the area – these to be assessed on an individual basis.

6.2.1 Endoscopic or radiological guidance

Clinical circumstances where an enteral feeding tube must be inserted under endoscopic or radiological guidance:

- Partial obstructive pathology in oropharynx or oesophagus preventing passage of the tube (e.g., stricture, tumour)
- Previous partial, total or extended total gastrectomy.
- Any previous bariatric surgery

7 Implementation, process, and safety

7.1 NG insertion the decision making process

- A decision to insert a Nasogastric tube for the purpose of feeding, hydration or the administration of prescribed medication must be made by the multi-disciplinary team responsible for the patient's care.
- Prior to insertion a referral to a Dietitian should always be made for nutritional assessment and the recommendation of an appropriate feeding regime.
- Any medications placed down a NG must be in agreement with the pharmacist responsible for the patient's treatment and only medications which are prescribed can be considered.
- The decision to insert a NG should only be made following careful assessment of the risks and benefits of the procedure which the patient should be made aware of and where possible agree to

- Prior to insertion the rationale for insertion of a nasogastric feeding tube must be considered and responses to the following documented on the Nasogastric insertion intervention plan within the patients EPR:
    - Is nasogastric tube feeding the right decision for this patient?
    - Has the patient been involved in the decision making?
    - Has the psychological impact of inserting a nasogastric and providing enteral feed been considered? Is this documented?
    - Is this the right time to place the nasogastric feeding tube and is appropriate equipment available?
    - Is there sufficiently trained staff available at this time to test for safe placement?
    - The rationale for inserting a nasogastric tube should be recorded clearly in the patient's EPR and medical notes.
- Once a NG is in use the ongoing rational for continuing to use this method of delivery for nutrition, hydration or medication must be made by the MDT. The MDT should review this practice on a regular basis. The recommendation review period for an in-patient is a minimum of weekly.
- This ongoing rational should also be documented regularly in the patients EPR and medical notes.

7.2 Nasogastric safety

- Nasogastric feeding tubes should only be placed when there is experienced support available for nasogastric tube insertion and for confirming the nasogastric tube position.
- Unless clinically urgent, if there is insufficient, experienced staff available (for example at night), placement should be delayed until that support is available. Rationale for any decisions made should be recorded on the intervention plan within the patients EPR.
- Due to the ongoing management needs for a patient requiring enteral feeding, planned admissions should only occur if a comprehensive assessment has been completed. A detailed care plan should be developed to reflect this assessment.

7.3 Record keeping and documentation

7.3.1 At insertion

At insertion of the nasogastric feeding tube, record the following on the patients EPR and NG tube checklist:

- Type and size of tube:
- External length of tube or cm marking at nostril

- pH of aspirate
- Which nostril the tube is placed in

7.3.2 At each subsequent test

At each subsequent test document on the patients EPR and NG tube checklist:

- The external tube length measurement or cm marking at nostril, checked against the initial measurement for signs of movement.
- The pH reading.
- Any actions taken.

7.3.3 X-ray

Documentation following x-ray should include:

- Who authorised the x-ray?
- Who confirmed the position of the nasogastric tube? The person must be assessed as competent to do so.
- A clear instruction whether it is ‘safe to feed’ or other required actions, which reduces the risk of communication error.
- The decision to feed a patient following X-ray confirmation of Nasogastric tube must be documented in the patient’s EPR dated, timed, and signed by that person.
- All feeds must be initiated on the prescription and administration chart by the Dietitian. Transcription on to new charts must be undertaken by a Dietitian or suitably qualified prescriber.
- Administration of feeds must be signed on the prescription and administration chart by the nurse undertaking the feeding and complete the nutritional supplement chart.

7.4 Safety checks and preparation

- Check enteral feeding prescription is correct and appropriate to the patient.
- Explain the procedure to the patient and carer and gain consent.
- Ensure the patient is in a comfortable position throughout the procedure.
- The patient will be involved and discussions about consent will take place with the patient/carer throughout the process and prior to this stage in treatment.
- Check if patient has any allergies.

- If a patients first language is not English then we would ensure that an interpreter is present for effective communication throughout the process.
- Check the feed is at room temperature, ensure packaging intact and feed has not expired.
- Assemble all necessary equipment.
- Once opened the feed must be labelled with the date and time opened and patient name.
- The feed must be prepared and administered as part of the dietician's/manufacturer's instructions.

N.B. any opened feed not in use MUST be stored in the fridge and only re-used when at room temperature. Feed must be discarded withing 24 hours of opening if not used.

- Where possible sit patient in a chair, if this is not possible assist the patient into a supported position of above 45 degrees in the bed.
- Check the patient's nose and face for signs of pressure damage.
- Ensure the NG tube has been confirmed to be in the correct position via daily aspirate check, as per the clinical procedure (the ongoing care and management of an adult patient with a NG tube in situ).
- When you have confirmed the NG tube is in the correct position attach the prescribed feed to the enteral administration set and load into the compatible machine as per manufacturer's instruction using an aseptic technique.
- Once the administration set is secured into the feeding pump commence the feeding process.
- On completion of the feed, wash hand s with liquid soap and water and dry thoroughly.

7.4.1 Equipment required

- Appropriate level of PPE
- Clinical waste bag
- Clean tray/dressing trolley
- Hypoallergenic tape or another appropriate securing device
- 50-60ml enteral syringe
- pH paper (CE marked)
- Permanent marker pen
- Electronic patient record - Nasogastric Tube Check – minimum Daily or as required

7.4.2 Procedure

- Explain the procedure to the patient/ carer and Gain consent.
- Assess the integrity of the nose and facial skin to ensure there is no skin breakage.
- Assess the integrity of the feeding tube for any damage.
- Confirm the patient is not experiencing any discomfort.
- Check on the electronic record the measurement of the tube at the nose prior to every use of the tube.
- Check the patient has not vomited retched or cough excessively since the last nasogastric tube check.
- Aspirate a sample of fluid using a 50-60ml enteral syringe with gentle suction.
- Place the aspirate onto the pH paper (CE marked) and check for an acidic reaction.
- Document results in the patient's electronic record Nasogastric Tube Daily Check.
- If safe to do so and pH is less than 5 the feed / water / medications can now be administered as prescribed.
- If A pH of 5 - 5.5 obtain second professional opinion to interpret the reading.
- If the aspirate gives a result of a **pH 6** note the patient's medication and leave for 1 hour and perform aspiration again

7.4.3 Cautions

N.B caution must be taken with patient's receiving:

- Antacids
- H2 antagonists
- Proton pump inhibitors
- The above medications may give a 'false' reading therefore the time of administration of the medication must be considered when performing repeat aspirate tests.
- If an aspirate is found to be pH7 or above this can indicate that the tube has displaced
- Note the patents medication and seek opinion of a pharmacist, regarding medication related to elevated pH.
- Reconsider the accuracy of the nasal measurement.
- Check that the patient has not vomited, retched, or coughed excessively since last check.
- X-Ray the Nasogastric tube to confirm tip.
- Any NG tube confirmed to be in the lung either by elevated pH reading or x-ray MUST be removed immediately.

- If the tube is confirmed to be incorrectly placed the tube will need to be repositioned or re-passed

7.4.4 If no aspirate or inconclusive

If no aspirate is obtained the following steps must be taken:

- Ensure a 50-60ml enteral syringe is being used; it can take a long time to gain an aspirate from a fine bore feeding tube.
- If the patient can swallow, and they are not nil by mouth, ask them to DRINK a small amount of water.
- Using a 50-60ml syringe Insert up to 10- 20ml of air into the tube, to move the tube in the stomach.
- If appropriate turn the patient onto their left side and whilst in this position retry aspiration after 20 minutes.

If an aspirate still cannot be obtained, or is inconclusive as the pH remains above 6 –
All the following must be checked:

The tube measurement at the nose has remained consistent.

- The medication regime justifies a high pH.
- That the patient has not vomited, retched, or coughed excessively since last check.

7.4.5 Documentation and discussion prior to commencement

If all the above are confirmed this must be documented in the patient's electronic record and the feed/water/ medications can now be administered as prescribed
If any of the above are not confirmed discuss with relevant member of the medical team or a Gastrostomy Specialist Nurse as the NG tube may need to be X-rayed to reconfirm placement.
If the X-ray confirms placement, document this and proceed to administer feed or medications.
If any of the checks confirm that the tube has become displaced discuss with relevant member of the medical team as the NG tube will need to be repositioned or repassed

7.4.6 Additional checks

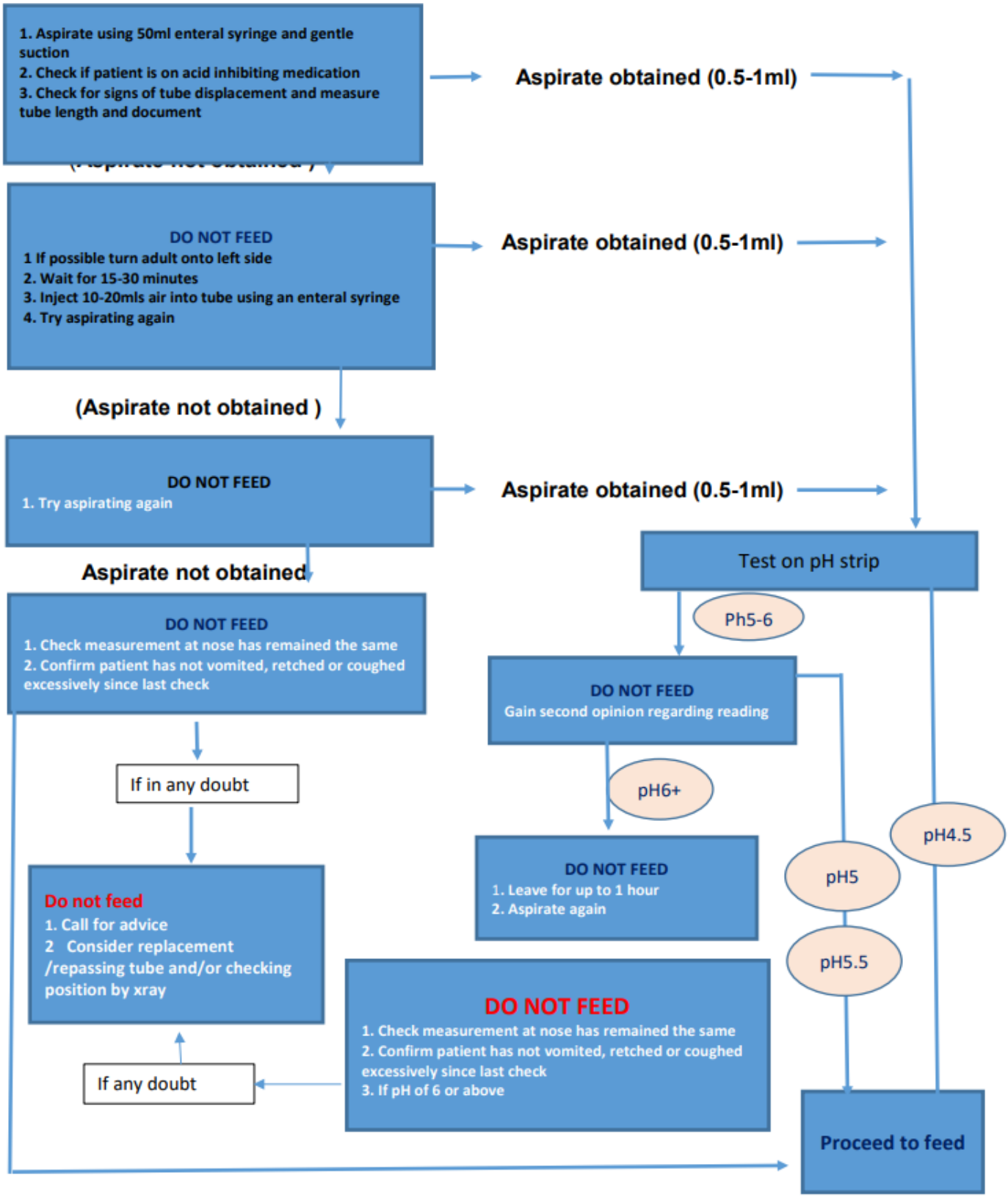
In addition to the above daily check further aspirate checks must be performed:

- Following any episodes of coughing, vomiting, retching
- Following any evidence of tube displacement
- If there is any evidence that the mark at the nose has moved

7.4.7 Removal of a Nasogastric Tube

- Explain the procedure to the patient /carer and gain consent.
- Ensuring the patients is in a comfortable position throughout the procedure.
- Assemble the equipment required and prepare the environment.
- Wash hands with liquid soap and water and dry thoroughly.
- Don appropriate level of PPE
- Take off the fixation tape and gently withdraw the tube through the nostril.
- Check the integrity of the patient's nose and surrounding skin.
- Check the integrity of the tube and its removal.
- Remove PPE. Wash hands with soap and water, dry thoroughly or perform alcohol hand rub.
- Clean trolley with disinfectant wipes and disposes of clinical waste, decontaminate hands using hand gel.
- Document the removal of the nasogastric tube on the patients record. If any problems are identified with the removal of the NG tube inform relevant member of the Medical Team for advice regarding patient management.

Confirming the correct position of nasogastric feeding tubes in All Adults (ventilated and Non- ventilated) DAILY CHECK



7.5 Consent

Verbal consent for the procedure should be sought and valid informed consent obtained prior to the procedure. Where a nasogastric tube is to be used for feeding purposes, patients and carers should be made aware of the associated complications which may be caused by tube insertion or misplacement, and the procedures which should be taken to prevent this.

If the patient is unable to give informed consent due to incapacity, the tube may be inserted if it is in the patient's best interests to do so.

For patients who do not have the capacity to consent, to comply with the Mental Capacity Act 2005, the following process and Electronic Patient Record needs to be completed:

- The Mental Capacity Assessment for insertion of an NG tube for enteral feeding, fluids and/ or medication, completed on the Electronic Patient Record mental capacity assessment form.

- Electronic Patient Record documentation must be completed and state the risks and benefits of an NG tube for enteral feeding, fluids and/ or medication.

For treatment where there is a confirmed mental health diagnosis e.g., anorexia nervosa and NG refusal, the Mental Health Act 1983 (2007) would need to be considered for treatment under section. This must be clearly documented on the patients EPR and in the patients' medical notes.

Individual consideration will be part of the intervention to place a NG. At all times the patient will be part of and involved in the process. If needed adaptions and change to the process will be made to respect and consider the individual needs of the patient. The Human Rights Act 1998 must be always taken into consideration when implementing this clinical intervention.

As per the Mental Health Act 1983: The MHA regulates medical treatment of mental disorder for individuals who are liable to be detained under the Act. This may include treatment of physical conditions that is intended to alleviate or prevent a worsening of symptoms or a manifestation of the mental disorder (e.g., a clozapine blood test) or where the treatment is otherwise part of, or ancillary to, treatment for mental disorder. This would include nasogastric feeding.

7.6 Nasogastric insertion under Physical Intervention

7.6.1 Considerations

Use of this approach under the application of physical intervention should only be carried out as part of a behaviour support plan and in line with TEWV's clinical procedure for Safe Use of Physical Restraint Techniques.

During insertion under physical intervention staff must be aware that on occasion the nasogastric tube can migrate from the stomach or become damaged. Please ensure all visual and confirmation of correct placement checks are undertaken prior to using commencing enteral feeding or administering medication.

A decision to insert a Nasogastric tube for the purpose of feeding, hydration, or the administration of prescribed medications under the application of physical intervention must be made by the MDT responsible for the patient's care including input from the patient's responsible clinician.

The decision to insert a nasogastric tube under the application of physical intervention should only be made following careful assessment of the risks and benefits which have been made clear to the patient and after which where possible they have consented to the treatment.

7.6.2 Prior to insertion

Prior to insertion under the application of physical intervention a referral to a Dietitian should always be made for assessment and the recommendation of an appropriate feeding regime.

Prior to insertion under the application of physical intervention any medications placed down a NG must be in agreement with the pharmacist responsible for the patient's treatment and only medications which are prescribed can be considered

Prior to insertion under the application of physical intervention the rationale for insertion of a nasogastric feeding tube must be considered and responses to the following documented on the Nasogastric insertion intervention plan within the patients EPR:

- Is nasogastric tube feeding the right decision for this patient at this time?
- Has the patient been involved in the decision making?
- Has the psychological impact of inserting a nasogastric tube under the application of physical intervention to provide enteral nutrition/hydration/medication been considered? Is this documented?

  Is this the right time to place the nasogastric feeding tube and is the appropriate equipment available?
- Is there sufficiently trained staff available at this time to test for safe placement?

7.6.3 Documentation of rationale and MDT discussion

The initial rationale for inserting a nasogastric tube under the application of physical intervention should be recorded clearly in the patient's EPR and medical notes. After each physical intervention an Inphase must be completed

If deemed necessary the ongoing rational for continuing to use a nasogastric tube under application of physical intervention for the delivery for nutrition, hydration or medication must be made by the MDT. This ongoing rational should also be documented regularly in the patients EPR and medical notes.

7.6.4 Debrief / Supervision

Following any procedure of placement of NG with physical intervention there needs to be a debrief with the patient. The debrief should be after all occasions when physical intervention is required. This would be an opportunity for the patient to suggest things we could do differently going forward.

Debriefs/supervision is to be offered to all members of the MDT when physical intervention is used to place a NG.

7.7 NG feeding under restraint (as per MEED guidelines)

7.7.1 Guidance

Occasionally patients may become so distressed that they resist weight gain by any means, and in such cases, NGT feeding under restraint may need to be considered as a life-saving intervention, although it should only be required very rarely. As a restrictive practice, it requires mental health staff trained in safe control and restraint techniques, and the use of relevant legislation. Hospital security staff may be trained in some forms of restraint, but they do not have training in the care of extremely frail patients with anorexia nervosa. Mental health staff should always be used for safe control, except in an extreme crisis where it is felt that there is a significant risk of injury or death occurring. The use of NGT feeding under restraint should always be a risk-based decision for each occurrence, carried out as infrequently as possible to follow principles of least restrictive practice and prevent traumatisation of patients and those around them.

Dietetic guidelines have been developed on the best practice for delivering enteral nutrition under restraint.208, 209 The key principles of this guidance include:

- delivery of feed via push syringe bolus (not gravity bolus or enteral pump)
- reducing the number of episodes of feeding to twice a day, and
- increasing the volume of the bolus delivered as tolerated up to 1000ml per bolus.

These principles ensure that feeds are given in line with the Mental Health Act (and equivalent UK legislation) code of practice.

7.7.2 Legislative basis

Under the Mental Health Act, Chapter 8). In addition to mental health law, the Children Act 1989 (Specific Issue Order [Section 8], Care Order [Section 37] or Inherent Jurisdiction of the Court [Section 100]) can be used to pass an NGT if the patient is under 18 and thought to be at risk of significant harm because of care given or not given. 210 feeding (including NGT feeding) is regarded as treatment for anorexia nervosa and is permissible against the patient's will in England and Wales.

Compulsory treatment, including NGT feeding, can also be given under mental health legislation in other UK countries.211 Such treatment is lawful under Sections 2 and 3. Under other circumstances it may be necessary to administer urgent life-saving treatment under common law, or to consider the use of mental capacity legislation.

7.7.3 Individual consideration and involvement in decision making

Individual consideration will be part of the intervention to place a NG. At all times the patient will be part of and involved in the process. If needed adaptions and change to the process will be made to respect and consider the individual needs of the patient and their protected characteristics. The Human Rights Act 1998 must be always taken into consideration when implementing this clinical intervention.

7.8 Training and Competence

To avoid catastrophic injury or fatal consequences, the National Patient Safety Agency (NPSA 2011) requires Healthcare Professionals to be competent in the insertion and subsequent management of nasogastric tubes (NGT). According to the NMC all registered nurses must take part in appropriate training learning and practice activities that maintain and develop competence. and performance.

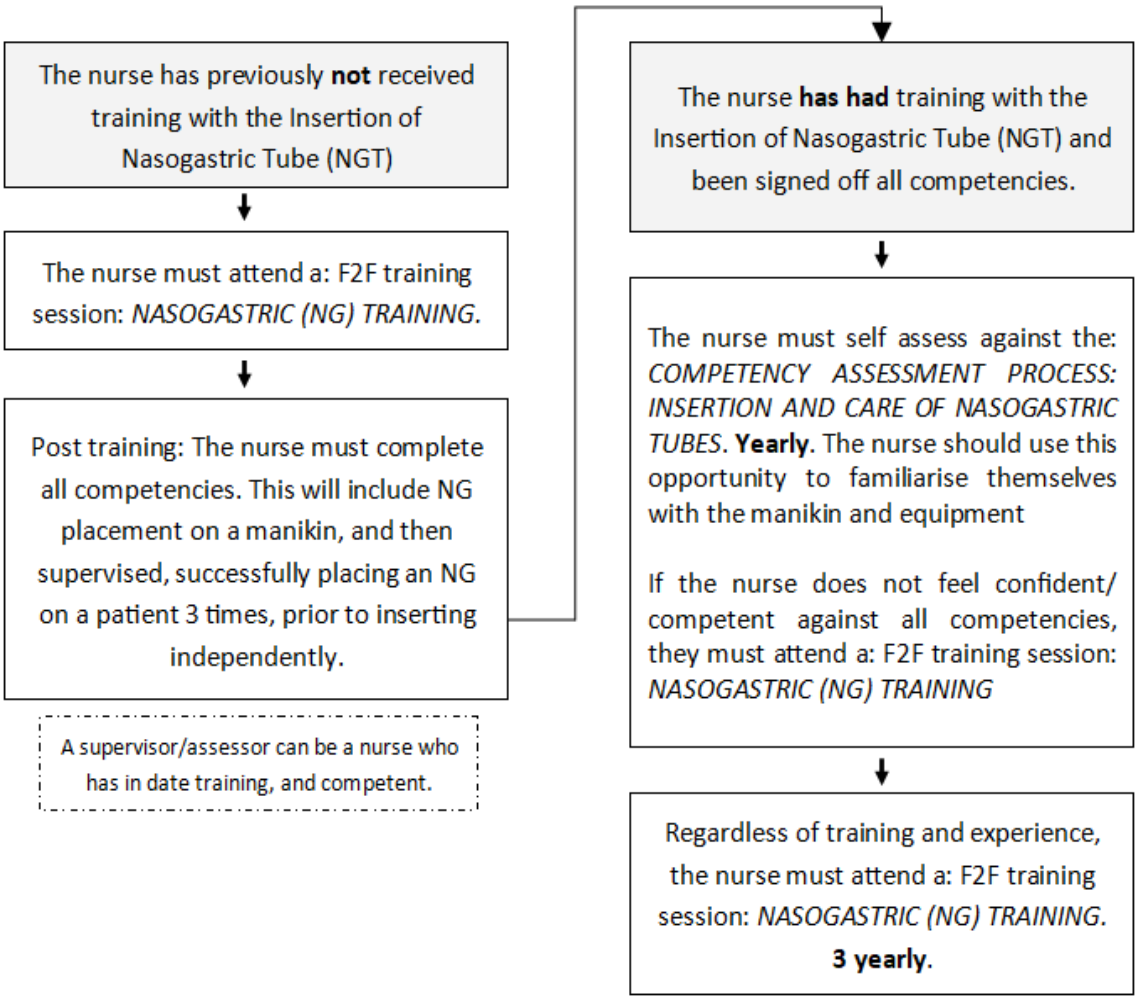
Regardless of training and experience, nurses who insert NGT's must attend a F2F training session: *'NASOGASTRIC (NG) TUBE INSERTION'* every 3 years.

There is also a competency assessment process: WASP COMPETENCY FRAMEWORK FOR THE INSERTION AND MANAGEMENT OF NASOGASTRIC TUBES. This has 2 components: Initial sign off, and yearly self-assessment.

The in-patient eating disorders ward will hold paper copies (or digital files) of training records as well as the training package, and assessment workbook.

NASOGASTRIC (NG) TUBE INSERTION

TRAINING & ASSESSOR FLOWCHART



8 Definitions

Term	Definition
Nasogastric feeding tube	• Fine Bore tube is typically used for administration of nutrition through specially designed feeds, hydration and if required some prescribed medications

Nasogastric Aspirate	• Gastric fluid removed from the stomach once a nasogastric tube is in place – if placed correctly in the stomach this aspirate is then checked with pH indicator strips (CE marked) and will have a pH between 1 to 5.5
Respiratory Tract	• The passage formed by the mouth, nose, throat, and lungs, through which air passes during breathing.
Pleura	• A thin layer of thin tissue which covers the lungs and lines the inside of the chest cavity – if a nasogastric tube is misplaced fluid can build up in the pleura (lung lining) resulting in a pleural effusion
Pneumothorax	• The presence of air or gas in the cavity between the lungs and the chest wall which can result in the collapse of the lung
Dysphagia	• The medical term for swallowing difficulties. • Can be described as an 'altered swallow'. • Some people with dysphagia have problems swallowing certain foods or liquids, while others can't swallow at all. • Dysphagia can result in a patient requiring the placement of a nasogastric tube for nutrition, hydration, or the administration of some prescribed medications
Maxillo-facia	• The jaw and face.
Basal skull fracture	• A basilar skull fracture (or basal skull fracture) is a fracture of the base of the skull, typically involving the temporal bone, occipital bone, sphenoid bone, and/or ethmoid bone
Mucositis	• Inflammation of the mouth or gut.
Oesophageal varices	• Enlarged veins in the oesophagus which can easily become damaged and bleed if a nasogastric tube is introduced to the oesophagus
Aspirate/Aspiration	• When material from the stomach or mouth enters the lungs which can result in, amongst other things, infection within in the lungs
Mask CPAP	• A mask worn over the mouth and nose which delivers continuous positive airway pressure ventilation
Anorexia Nervosa	• A psychological disorder resulting in a pathological fear of weight gain typically resulting in persistent food refusal and malnutrition evidenced by a very low body weight/BMI and a lack of awareness of the significant risks to health caused by this

Refusal Disorder	• An eating disorder characterised by a persistent refusal to consume adequate food to meet requirements for ongoing health. If severe and longstanding it can result in malnutrition
Enteral Feeding	• Any method of feeding that uses the gastrointestinal (GI) tract to deliver part or all an individual's nutritional requirements. This includes an oral food-based diet, liquid oral nutritional supplements, or the use of tube feeding. It contrasts with parenteral nutrition which uses routes outside the GI tract such as intravenous feeding
NG	• Nasogastric
NGT	• Nasogastric tube
MDT	• Multi-disciplinary Team
WASP	• WASP competency framework for the insertion and management of nasogastric tubes.
ESR	• Electronic patient record

9 How this procedure will be implemented

This procedure will be published on the Trust Intranet and Trust Website

Line Managers must make sure all their staff know about this procedure if it is relevant to their role.

9.1 Implementation action plan

Activity	Expected outcome	Timescale	Responsibility	Means of verification/ measurement
Collaborative working with general/acute Trust, for the delivery and assurance of nasogastric insertion training	Service level agreement (SLA)	December 2024	Interim Associated Director of Nursing AMH and MHSOP (planned care) & Service Manager, Specialist Adult	Continuous communication and liaison with acute Trust, and inpatient eating disorder leadership team

and competency assessment.			Mental Health Services Durham, Darlington, and Tees Valley	

9.2 Training needs analysis

Staff/Professional Group	Type of Training	Duration	Frequency of Training
Inpatient Eating Disorder Ward Nurses	Face to face (presentation and practical)	3 hours	Every 3 years
Inpatient Eating Disorder Ward Nurses	Self-assessment: WASP competency framework for the insertion and management of nasogastric tubes	6 months to complete	Yearly
Inpatient Eating Disorder Ward Nurses	Supervised insertion of Nasogastric Tube	3 supervised insertions required	Once (or evident need)

10 How the implementation of this procedure will be monitored

Number	Auditable Standard/Key Performance Indicators	Frequency/Method/Person Responsible	Where results and any Associate Action Plan will be reported to, implemented and monitored; (this will usually be via the relevant Governance Group).
1	100% of the inpatient eating disorder ward nurses will have completed face-to-face training 3 yearly and self-assess yearly.	Frequency = Annually Method = Audit of ward paper training log Responsible = Nasogastric insertion trainers	Escalated to Associate / Director of Nursing if required. Liaise with Training & Education department if required.

2	Audit of mental health documentation when NGT has been inserted as a MCA1/MCA2-Best Interest Decision	Frequency = Monthly (if applicable – *there may be times that there are no patients with an NGT*) Method = Audit of PARIS and EPR Responsible = Ward Manager / Modern Matron	Escalated to Associate / Director of Nursing if required. Liaise with Training & Education department if required.

11 References

Mental Capacity Act 2005
Mental Health Act 1983 (2007)
Human Rights Act 1998

DH Patient Safety and Investigations (2012) The 'never events' list 2012/13
Human Rights Act (1998)

NPSA (2005) Reducing the harm caused by misplaced nasogastric feeding tubes. Patient safety alert 05, February 05. NPSA. London

NPSA (2005) How to confirm the correct position of nasogastric feeding tubes. Patient safety alert 05, February 05. NPSA. London

National Patient Safety Agency (NPSA) NPSA/2011/PSA002 Reducing the harm caused by misplaced nasogastric feeding tubes in adults, children, and infants.

NPSA Patient Safety Agency (2012) NPSA/2012/RRR001: Rapid Response Report Harm from flushing of nasogastric tubes before confirmation of placement.

National Patient Safety Agency (2016) Patient Safety Alert NPSA/PSA/RE/2016/006 Nasogastric tube misplacement: continuing risk of death and severe harm.

NHS England (2013) Patient Safety Alert NHS/PSA/W/2013/001 Placement devices for nasogastric tube insertion DO NOT replace initial checks.

NHS England (2016) Patient Safety Alert: NHS/PSA/RE/2016/006 Nasogastric tube misplacement: continuing risk of death and severe harm

National Institute for Health and Clinical Excellence (NICE) (2006) Nutrition support for adults: oral nutrition support, enteral tube feeding and parenteral nutrition, Clinical guideline [CG32] Published date: February 2006 Last updated: August 2017

Royal Marsden Manual of Clinical Procedures 10th edition (2020) Procedural guidelines for the insertion of a nasogastric tube without using an introducer, John Wiley, and sons.

12 Document control (external)

To be recorded on the procedure register by Procedure Coordinator

Required information type	Information
Date of approval	03 April 2025
Next review date	02 October 2027
This document replaces	CLIN-0078-v4 Nasogastric Insertion and Management Procedure
This document was approved by	The Fundamentals of Holistic Care Clinical Advisory Group
This document was approved	03 April 2025
This document was ratified by	n/a
This document was ratified	n/a
An equality analysis was completed on this procedure on	19 February 2025
Document type	Public
FOI Clause (Private documents only)	N/A

Change record

Version	Date	Amendment details	Status
v4	02 Oct 2024	Training and Competency. MEED guidelines added.	Withdrawn
v4.1	03 April 2025	Amended appendix 3 to update “Nasogastric tube position confirmation record” to “Nasogastric Feeding Tube Care Pathway” to reflect current practice emphasising safety considerations.	Approved

Appendix 1 - Equality Impact Assessment Screening Form

Please note: The Equality Impact Assessment Policy and Equality Impact Assessment Guidance can be found on the policy pages of the intranet

Section 1	Scope
Name of service area/directorate/department	Birch (In-Patient) [eating disorder] Ward, West Park Hospital
Title	Nasogastric Insertion and Management for Adult Eating Disorders (In-Patient)
Type	Procedure
Geographical area covered	Trust wide
Aims and objectives	Following this procedure will help the Trust to: - • To promote a clear, consistent, and evidenced based approach to the insertion, care, and management of Nasogastric (NG) tubes. • To support the information provided by the Royal Marsden Manual On-line. • To promote the safety and well-being of all patients who require NG enteral feeding. • This procedure has been developed with evidence and guidance from the National Patient Safety Agency (NPSA) Alerts, Field Safety Notices (FSN) and the Medicines and Healthcare Products Regulatory Agency (MHRA). • To provide clinical staff with supplementary evidence for managing adult patients requiring enteral feeding with a Mental Health and/or Learning Disability diagnosis. Exceptions to purpose: • This procedure is primarily for use with adults who have a diagnosis of an eating disorder. The insertion and management of a NG can only be implemented in practice by clinicians who are trained and deemed competent in this procedure. The NG procedure is not

	designed for use outside of a specific eating disorder in-patient setting. If NG feeding is considered an option in another clinical area in the trust this would require escalation for senior management approval. • Children and Adolescent Mental Health Services (CAMHS) • Please refer to the separate relevant local CAMHS / Paediatric pathways for information in relation to assessment of refeeding syndrome and nasogastric feeding. Objectives: • The objectives of this procedure are to: • Ensure a standardized approach to the NG Insertion and Management is maintained by TEWV Trust staff. • To prevent the risk of harm to patients who require NG insertion and feeding. • Ensure that safe and consistent treatment is offered to all service users within the inpatient eating disorders ward. • Ensure that TEWV Trust staff are aware of the importance of safe NG insertion and management of NG tubes including the significance of a holistic, person-centred approach to care delivery. • Support the implementation of high-quality healthcare Trust wide.
Start date of Equality Analysis Screening	19 Feb 2025
End date of Equality Analysis Screening	19 Feb 2025

Section 2	Impacts
Who does the Policy, Procedure, Service, Function, Strategy, Code of practice, Guidance, Project or Business plan benefit?	Patients, families, carers, and staff.
Will the Policy, Procedure, Service, Function, Strategy, Code of practice, Guidance, Project or Business plan impact negatively on any of the protected characteristic groups? Are there any Human Rights implications?	• **Race** (including Gypsy and Traveller) **NO** • **Disability** (includes physical, learning, mental health, sensory and medical disabilities) NO • **Sex** (Men and women) **NO** • **Gender reassignment** (Transgender and gender identity) **NO** • **Sexual Orientation** (Lesbian, Gay, Bisexual, Heterosexual, Pansexual and Asexual etc.) **NO** • **Age** (includes, young people, older people – people of all ages) **NO - For Adults only.** • **Religion or Belief** (includes faith groups, atheism, and philosophical beliefs) **NO** • **Pregnancy and Maternity** (includes pregnancy, women / people who are breastfeeding, women / people accessing perinatal services, women / people on maternity leave) **NO** • **Marriage and Civil Partnership** (includes opposite and same sex couples who are married or civil partners) **NO** • **Armed Forces** (includes serving armed forces personnel, reservists, veterans, and their families) **NO** • **Human Rights Implications YES**(Human Rights - easy read)
Describe any negative impacts / Human Rights Implications	It has been identified that there could be Human Rights implications when carrying out this procedure. If any absolute rights are being restricted or interfered with by carrying out this procedure then staff must prioritise upholding these rights, this could mean taking reasonable steps to ensure that the least restrictive practice is used. If non-absolute rights are being restricted, the NHS must ensure any restrictions are lawful, for

	a legitimate reason, and necessary and proportionate.
Describe any positive impacts / Human Rights Implications	

Section 3	**Research and involvement**
What sources of information have you considered? (e.g., legislation, codes of practice, best practice, nice guidelines, CQC reports or feedback etc.)	See references
Have you engaged or consulted with service users, carers, staff and other stakeholders including people from the protected groups?	Yes
If you answered Yes above, describe the engagement and involvement that has taken place	Internal consultation with Eating Disorder MDT.
If you answered No above, describe future plans that you may have to engage and involve people from different groups	

Section 4	**Training needs**
As part of this equality impact assessment have any training needs/service needs been identified?	No
Describe any training needs for Trust staff	N/A
Describe any training needs for patients	N/A
Describe any training needs for contractors or other outside agencies	N/A

Check the information you have provided and ensure additional evidence can be provided if asked.

Appendix 2 – Approval checklist

Title of document being reviewed:	Yes / No / Not applicable	Comments
1. Title		
Is the title clear and unambiguous?	Y	
Is it clear whether the document is a guideline, policy, protocol or standard?	Y	
2. Rationale		
Are reasons for development of the document stated?	Y	
3. Development Process		
Are people involved in the development identified?	Y	
Has relevant expertise has been sought/used?	Y	
Is there evidence of consultation with stakeholders and users?	Y	
Have any related documents or documents that are impacted by this change been identified and updated?	Y	
4. Content		
Is the objective of the document clear?	Y	
Is the target population clear and unambiguous?	Y	
Are the intended outcomes described?	Y	
Are the statements clear and unambiguous?	Y	
5. Evidence Base		
Is the type of evidence to support the document identified explicitly?	Y	
Are key references cited?	Y	
Are supporting documents referenced?	Y	
6. Training		
Have training needs been considered?	Y	
Are training needs included in the document?	Y	
7. Implementation and monitoring		
Does the document identify how it will be implemented and monitored?	Y	

8. Equality analysis		
Has an equality analysis been completed for the document?	Y	
Have Equality and Diversity reviewed and approved the equality analysis?	Y	April 2025 ah
9. Approval		
Does the document identify which committee/group will approve it?	Y	
10. Publication		
Has the procedure been reviewed for harm?	Y	No harm
Does the document identify whether it is private or public?	Y	Public
If private, does the document identify which clause of the Freedom of Information Act 2000 applies?	N/A	
11. Accessibility (See intranet accessibility page for more information)		
Have you run the Microsoft Word Accessibility Checker? (Under the review tab, 'check accessibility'. You must remove all errors)	Y	
Do all pictures and tables have meaningful alternative text?	Y	
Do all hyperlinks have a meaningful description? (do not use something generic like 'click here')	Y	

Appendix 3 – Nasogastric Feeding Tube Care Pathway

Nasogastric Feeding Tube Care Pathway (Adults)

(For use in in-patient eating disorder unit)

WRITE OR ATTACH PATIENT LABEL

Surname _____

Forenames _____

DOB DD / MM / YYYY Age _____

Paris ID _____

NHS Number _____

Aim: To ensure patient safety is maintained and best procedural practice is attained with the intention of minimising the occurrence of avoidable incidents.

[Feeding into the lung, through a misplaced nasogastric tube is now a Never Event in England. All misplacement incidents must be reported locally as well as nationally to the NRLS]

When: Throughout all Nasogastric tube placements, repositioning, and maintenance.

By whom: All healthcare professionals responsible for the insertion and on-going management of Nasogastric tubes.

To be used in conjunction with Policy: Nasogastric Insertion & Management for Adult Eating Disorders (In-Patients)

Staff can and must use the 'Stop' phrase at any time they have a concern: **"Stop, I am not happy"**

SIGN IN

To be completed by the individual conducting, prior to the procedure starting

Preparation prior to procedure

☐ Confirm all individuals have introduced themselves

☐ Patient identity and procedure has been confirmed

☐ Risks and benefits considered and documented*

Consent: ☐ Yes ☐ No ☐ Best Interest

Confirm the operator is ☐ trained in the insertion of NG tubes or ☐ supervised by a trained operator

☐ Staff aware of risks involved, inc. respiratory distress

☐ Confirm availability of correct type/size of feeding tube

☐ pH indicator strips available (CE marked)

Does the patient have a known allergy? ☐ Yes* ☐ No

(Consider materials used i.e. tube, dressing, tape etc.)

**If concerned, seek expert advice. Do not proceed without consulting senior clinician in charge of patient care.*

TIME OUT

To be read out loud by the assistant before invasive part of procedure commenced

☐ Hands washed, gloves and other appropriate PPE

☐ For conscious patients, a 'STOP' sign agreed

☐ All equipment fit-for purpose and within reach

☐ Aware maximum 3 attempts of insertion to be made

☐ Nose examined, and nostril selected | Nose – Ear – Xiphisternum (NEX) distance _____cm

Nasogastric Tube Insertion Procedure

Insertion Date _____ Time _____

Location/Ward _____

Nostril used: ☐ Left ☐ Right

Number of attempts taken _____

NG tube make _____

NG tube size _____ LOT number: _____

☐ Centimetre **mark** at nostril (_____cm)

☐ NG tube marked at nose

☐ Tube secured by tape/dressing

Aspirate obtained from NGT using a 60ml syringe ☐ Yes ☐ No

pH of aspirate: ☐

Second person(s) confirming pH aspirate:

_____ (SIGN / PRINT NAME / REG NO. *if applicable*)

Please turn over

SIGN OUT *To be read out loud by the assistant before anyone leaves the procedure area*

☐ pH is 5.5 or less – NGT is **SAFE TO USE**} Sign final confirmation section below

☐ pH is above 5.5 – NGT is **NOT SAFE** to use} Leave guidewire in situ and request CXR (tick below)

☐ No aspirate obtained – NGT is **NOT SAFE** to use} Leave guidewire in situ and request CXR (tick below)

- ☐ Guidewire left in situ.
- ☐ CXR requested: Date _____ Time _____
- ☐ Responsibility for checking CXR handed over to: _____ *(Responsible Person*)*

☐ NGT could not be passed to NEX measurement} Patient may have obstruction-remove tube and seek senior advice

Operator					
Print Name		**Signature**		**Reg No.**	
Supervisor *(if present)*					
Print Name		**Signature**		**Reg No.**	

FINAL CONFIRMATION NASOGASTRIC TUBE IS SAFE TO USE

MANDATORY SECTION – MUST BE COMPLETED BY COMPETENT PERSON BEFORE NG TUBE CAN BE USED

Nasogastric feeding Tube is successfully placed and ready to be used now, confirmed with:

☐ pH aspirate ☐ Radiologically [See below for details]

☐ Guidewire removed

Name (print) _____ Band _____ Registration No. _____

Signature _____ Date _____ Time _____

NASOGASTRIC TUBE EXPIRY

As per policy: **Nasogastric tubes must be replaced as standard irrespective of their use every 4 weeks.**

Tube replacement (if required) due on: DD / MM / YYYY

RADIOLOGICAL CONFIRMATION

***Responsible person** to obtain information from X-Ray department the patient attended.

Ensure all information is recorded on the patients EPR. Including the full radiology report, and confirmation the tube is safe to use.

Consider…*does the NGT follows path of oesophagus, bisects the carina, crosses the diaphragm in midline, clearly visible below diaphragm, and tip seen in stomach.*

NASOGASTRIC (NG) TUBE POSITION CONFIRMATION RECORD

(For use in in-patient eating disorder unit)

WRITE OR ATTACH PATIENT LABEL

Surname _____

Forenames _____

DOB DD / MM / YYYY Age_____

Paris ID _____

NHS Number _____

This should only be used with the **Nasogastric Feeding Tube Care Pathway (Adults)** detailing insertion. If the tube is to be reinserted, then a new **pathway MUST** be completed.

The position of the nasogastric tube should be checked measuring the pH of the aspirate obtained via the tube using approved pH strips. The pH much be 5.5 or less before the tube can be used for flushing, feeding or medicine administration. The cm mark at the nostril must be checked regularly to ensure the tube has not been dislodged.

pH and cm mark checks should be carried out:

- Following initial insertion (documented on pathway)
- Before administering each feed and medication
- Following episodes of unexplained respiratory symptoms or if oxygen requirements increase
- Following episodes of vomiting, retching or coughing spasms, or whenever there is suggestion of tube displacement

Additional 'cm' mark and visual observation checks should be carried out at least 4 hourly whilst feed is running.

Date	Time	pH check	'cm' mark at nostril (4 hourly)	Is the tube secure?	Checked by (Print name)	Designation	Sign
			'cm' mark at the time of insertion:				
			08:00				
			12:00				
			16:00				
			20:00				
			00:00				
			04:00				
			08:00				
			12:00				
			16:00				
			20:00				
			00:00				
			04:00				

Date	Time	pH check	'cm' mark at nostril (4 hourly)	Is the tube secure?	Checked by (Print name)	Designation	Sign
			'cm' mark at the time of insertion:				
			08:00				
			12:00				
			16:00				
			20:00				
			00:00				
			04:00				
			08:00				
			12:00				
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			12:00				
			16:00				
			20:00				
			00:00				
			04:00				

[**CONTINUATION SHEET*** *NASOGASTRIC (NG) TUBE POSITION CONFIRMATION RECORD (For use in in-patient eating disorder unit*]

PATIENT NAME: ____ **DOB**: ______________________ **Paris ID**: ________________________

Date	Time	pH check	'cm' mark at nostril (4 hourly)	Is the tube secure?	Checked by (Print name)	Designation	Sign
			'cm' mark at the time of insertion:				
			08:00				
			12:00				
			16:00				
			20:00				
			00:00				
			04:00				
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