University Hospitals of Leicester NHS
NHS Trust

Insertion and Maintenance of Nasojejunal and Oraljejunal tubes in Paediatrics.

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Contents

REVIEW DATES AND DETAILS OF CHANGES MADE DURING THE REVIEW

- New Policy

KEY WORDS

Nasojejunal, oraljejunal, nutrition, NJT, OJT, Nasogastric, Ng,

1 Introduction and Overview

1.1 A nasojejunal tube (NJT) passes through the stomach and rests in the jejunum. This document sets out the University Hospitals of Leicester (UHL) NHS Trust's Policy and Procedures for blind NJT bedside insertion, preparing a child for radiology NJT insertion, and management of an NJT.

1.2 The aim of an Nasojejunal tube or Oraljejunal tube (OJT) is to:

1.21 Provide delivery of nutrition to a child where oral or Nasogastric (NG) delivery is not appropriate.

1.22 Allow medication to be given, but to (be aware) that some medication is not appropriate to be given via a NJ/OJ due to difference in absorption between the stomach and intestine. Consult a pharmacist if there are any concerns.

Benefits include:

- NJ/OJ feeds can avoid the requirement for parenteral nutrition (PN). PN requires central venous access which has risks of line infection and trauma if the line is accidentally removed.

Risks and drawbacks associated with NJ feeding:

- The insertion procedure can be traumatic for the majority of children
- Exposure to x-ray radiation to confirm placement
- Risk of perforation of the jejunum if inserted incorrectly
- Takes longer to pass than an NG, prolonging psychological trauma to the child
- Unable to pass at home, and will require a healthcare professional to pass and radiology to confirm placement
- The tube is noticeable
- Babies and Young Children are likely to pull out the tube making regular re-insertion necessary
- Aspiration – if the tube is placed incorrectly
- Increased risk of gastroesophageal reflux with prolonged use
- Damage to the skin on the face due to retaping and nasal erosion

1.3 Nasojejunal tube feeding in infants and children is particularly useful in the short term, particularly because it avoids surgical procedures to insert central lines for TPN/PN

1.4 NJT/OJT's are not routinely aspirated. There should be no aspirate back. It is usual practice for the patient to also have an NGT, often on free drainage, to aspirate stomach contents and check that the NJT has not migrated back to the stomach

1.4 It is important to maintain health and prevent deterioration in nutritional status as this may impair the ability to provide treatment. Nutritional support should be actively considered and planned for during treatment planning and Paediatric Dieticians should be involved if any concern is identified.

1.5 All patients must have their nutritional status assessed using the Paediatric Yorkhill Malnutrition Score (PYMS). (*Paediatric Assessment Tool*). Neonatal patients do not require this.

1.6 All patients to have tissue viability assessments and ongoing care regarding this.

2 Policy Scope –who the policy applies to and any specific exclusions

2.1 This policy and its supporting procedures aim to support staff in the ongoing management of NJT/OJT's tubes in all infants, children and young people by:

2.2 Providing clear directives for the safe and effective placement of NJ/OJ tubes in babies, children and young people.

2.3 Providing clear directives for the safe position checking of NJ/OJ tubes

2.4 Ensuring NJ/OJ feeding is incorporated into the patient's care plan.

2.5 This policy applies to all healthcare staff employed by UHL who insert and / or care for babies, children or young people with a NJT/OJT across all areas in the children's hospital.

2.6 UHL is a teaching hospital and provides placement or work based learning for Pre-registration students such as Medicine, Nursing, Midwifery, Paramedic, Radiography, Physiotherapy, Occupational Therapy, Pharmacists, as well as Assistant Practitioners and Nursing Associates. This policy applies to these learners in the following circumstances:

a) If paediatric or neonatal NJT/OJT insertion and/or feeding is a specific competency requirement of their placement or programme then the pre-registration student/trainee is able to perform the skill under direct supervision of their mentor/supervisor once they have received the relevant underpinning theory training and passed a simulated practice.

b) If paediatric NJT/OJT tube insertion and/or feeding is not a specific competency requirement of their placement or programme then the pre-registration student / trainee must only participate in the process as an observer.

3 Definitions and abbreviations

NG – Nasogastric, Tube that passes through the nose and to the stomach for feeding and/or medication purposes

NJT – Nasojejunal, Tube that passes through the nose and stomach to the jejunal for feeding and/or medication purposes

OJT – Oraljejunal, as above but passes through the mouth

PN – Parental nutrition, which is IV fluid nutrition containing nutrients, electrolytes and fats that can only be given intravenously via central venous access.

4 Roles – who does what

4.1 It is the responsibility of all staff to ensure that they are competent to perform the skills that they can reasonably be expected to perform as part of their specific job role in relation to general, interventional or medical care.

4.2 Staff must not undertake a task that they are not competent to perform unless they are being taught and supervised by a competent professional.

4.3 It is the responsibility of all staff to ensure that the necessary care is **delivered in a timely way**. If they are not competent to deliver the care in a timely manner themselves, then they must communicate this to a competent individual who is in a position to deliver the care. Depending on the level of care required this may be a colleague within their department or medical staff.

4.4 For guideline specific training requirements please see section 7 of this guideline

4.5 Executive Lead
Head of Children's Services and Head of Nursing

4.6 Senior Clinical Management Teams
CMG Heads of Nursing, Deputy Heads of Nursing and Matrons alongside & Head of Service are responsible for ensuring CMG clinical teams are trained and competent and are aware and familiar with this policy

4.7 Competent Clinicians are responsible for:
a) Identifying suitable patients for NJT/OJT insertion and referring those that are not suitable for NJT/OJT on to the appropriate teams.

b) Delaying the placement of the tube if there is not sufficient experienced support available to accurately confirm Nasojejunal/oraljejunal tube placement, e.g. out of hours with no x-ray facility, and also at ward level e.g. Staff are not confident/competent in PH testing of NJ/OJ tube to check it is not placed in the stomach.

c) Ensuring that the decision to commence NJT/OJT feeding is based on the patient's nutritional status and treatment goals, and that the decision is documented on the NJT/OJT care plan and medical notes.

d) Ensuring that the NJT/OJT is not used unless confirmed by x-ray by a competetent clinician.

e) Requesting an X-ray for NJT/OJT placement confirmation and ensuring that the X-ray request form clearly states that the X-ray is to establish the position of the NGT/OJT for the purpose of feeding.

f) **It is mandatory** that the medical staff responsible for the patient are able to provide the radiographer with the tube measurement marker number in centimetres (tube measurement will be recorded on the insertion sticker which is placed in the medical notes), and confirmation that the guidewire is not in situ. Failure to do so may result in the CXR request being denied.

g) In the event that there are no medical staff available to confirm placement on X-ray and the radiologist is unable to review the X-ray for four hours, the competent clinician is responsible for:

I. Contacting the 24hour on-call radiologist SPR level or above if they are unable to confirm placement for an immediate report or expert advice.

II. Documenting the jejunal placement

III. Confirmation that any x-ray viewed was the **most current x-ray** for the correct patient

IV. How jejunal placement was interpreted

V. Clear instructions as to any required actions

VI. Any tubes identified to be in the lung are removed **immediately**, whether in the x-ray department or clinical area.

VII. Document all findings on LOCSSIP, NJ Sticker, or medical notes whichever is appropriate

4.8 Radiologists/Radiology Advanced Practitioners
When the radiologist/ Radiology Advanced Practitioner reports the placement film, he or she must document the position of the naso/oraljejunal tube and tip.

4.9 Senior CMG nurses
Heads and Deputy Heads of Nursing and Matrons are responsible for ensuring adequate staffing levels of competent nurses within their clinical areas.

4.10 Ward Sisters/Charge Nurses
Are responsible for ensuring development on the ward or unit of appropriate numbers of competent staff and responsible for on-going monitoring of the quality of the NJ/OJ techniques used within their clinical areas

4.11 Registered Nurses are responsible for:
a) To have completed the NG LCAT and be aware of this policy before passing an NJ
b) The individual care of patients requiring NJT/OJT nutrition.
c) Ensuring that the care they provide to these patient groups is in line with UHL policies and procedures and that they are appropriately trained.
d) To administer prescribed NJ/OJ feed and associated medications as prescribed and as per this policy.
e) To administer prescribed feed and water flushes as per the Dietician's regime and as per this policy's instructions. In Neonatal or Intensive care flushes may not be required due to fluid restrictions.
f) To liaise with the Home Enteral Nutrition Service (HENS) Dietitians prior to patient discharge. In the Neonatal unit the neonatal Outreach team must be contacted.
g) Ensuring that NJT/OJT insertion, initial and ongoing position checks and care are provided as detailed in this Policy. Do not use the tube if position is unconfirmed.
h) Following this policy when inserting an NJ / OJ and / or caring for a patient with a NJT/OJT.
i) Delaying the placement of the tube if requested out of hours and there is not sufficient experienced support available to accurately confirm NJT/OJT placement at ward level e.g. Staff are not confident / competent in pH testing of NJ/OJ tube placement when it has reached stomach
j) Acting immediately to remove misplaced tubes on receipt of phone call from Radiology.
k) Supporting their clinical area in developing and sharing knowledge and skills in first line NGT/NJT care

4.12 Radiographers are responsible for:
a) Ensuring the exposure of the x-ray is adequate and should assess if the tube can be seen clearly. They should repeat or seek advice from a Radiologist if appropriate and undertake the following;
• Exposure of the x-ray is adjusted to allow the NJT/OJT tube to be visible to the bottom of the film.

• The film is centred lower than would normally be appropriate for a chest x-ray so that it shows the abdomen as far as possible below the diaphragm.

• The x-ray film must show the bottom of both hemi-diaphragms in the midline.

- The x-ray must show the entire length of the NJ/OJ, showing how it curves into the jejunum, and to see if there has been any perforation

b) X-rays that are not taken as described above will not allow accurate interpretation of NJT/OJT tube placement and should not be made available for viewing on the PACS System.
c) Contacting the qualified ward staff looking after the patient immediately if the tube is identified to be in the lung and request that a competent clinical person removes the tube in Radiology before they are discharged back to the clinical area. Where this is not possible to remove the tube prior to leaving radiology the tube should be clearly labelled not for use.
d) Radiographer is responsible for documenting the tube placement checking process, including clear instructions as to required actions and for formally recording these instructions/actions. This documentation should be made on a LOCSSIP, NJ sticker (Appendix 5), or medical documents. (NPSA). Medical notes should be requested from the wards and any adverse placement/actions are to be recorded in the patients' medical notes. In the event the medical notes are unavailable then this should be documented on the CRIS system.

4.13 Dieticians are responsible for:
a) Taking responsibility for nutritional screening, and assessment of the patients feed requirements.

b) Providing the patient with an individual regime of prescribed feed and water flushes.

c) Reviewing the patient and altering the regime as necessary.

d) Completing the registration with Home delivery service for feed and/or equipment.

e) Liaising Community Nursing Team prior to patient discharge.

4.14 Pharmacists are responsible for:
a) Ensuring that medications are in correct formulation to be administered safely via the enteral feeding tube into the jejunam. To document instructions for staff/patient/carers on the medication chart or Electronic Prescribing Medicines Administration (ePMA).

4.15 Student Nurses and Trainee Nursing Associates are responsible for;
a) Reporting any patient changes or problems with the enteral feeding tube to the Registered Nurse.

b) Administering prescribed feed and water flushes as per the Dietitian's regime and as per this policy's instructions under direct supervision of a Registered Nurse.

c) Liaising with the Nurse in Charge in the first instance if there are problems or questions relating to the enteral feeding tube.

d) Following UHL policy when caring for a patient with an enteral feeding tube.

4.16 Health Care Assistants, Nursery Nurses, and Nursing Associates are responsible for;

a) HCAs/NN and Nursery Specialist on the Neonatal Unit can provide care for Enteral feeding if they have completed the appropriate competency training (NG training booklet and LCAT) and have documentation that this care has been authorised by their immediate ward Sister / Charge Nurse/Unit Manager.

b) Reporting any patient changes or problems with the enteral feeding tube to the Registered Nurse.

4.17 Prescribers
a) Are responsible for the prescription that they sign and therefore are responsible for choosing the correct route of feed and/or medication, as their prescription instructs other UHL professional's actions.
b) Enteral feeds can be prescribed by any professional who is authorised/qualified to do so i.e. Doctor, Dietitian, Non-Medical Prescriber.

4.18 All UHL Staff
All staff are responsible for monitoring compliance within their working area to this policy's guidelines, and must report any issues with compliance to their relevant managers and clinical leads.

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5. Policy implementation and Associated Documents

Associated Documents –
Nasogastric and Orogastric Tube Insertion in Children and Neonates UHL Childrens Hospital Policy **UHL - B54/2017**
Breast Feeding Support UHL Obstetric Guideline **UHL 120/2008**
PICU Feeding Guidelines **UHL C90/2016**

6 Education and Training Requirements

All registered staff involved in the passing and care of NJ tubes should be NG tube competent, have awareness of the NJ policy and use this a reference guide and feel confident and confident with this (working within with own limitations).

7 Process for Monitoring Compliance

Element to be monitored	Lead	Tool	Frequency	Reporting arrangements Who or what committee will the completed report go to.
When X-ray is used to confirm position, the radiographer, registrar, or consultant must record on the sticker in the appendix or write in the medical notes clear documentation of position, and the centimetre measurement of the tube at the nasal or oral cavity	Consultant radiologist, consultant of area	Audit	Annually	Prevalence Survey
An incident form is completed for misplaced tubes and actions taken disseminated through CMG governance processes	Ward Sister	Audit	As occurs	Ongoing datix reporting and auctioning at ward and CMG level

8 Equality Impact Assessment

8.1 The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.

8.2 As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

9 Supporting References, Evidence Base and Related Policies

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Appendix 1: Insertion by radiology

To guide the selection of equipment for preparing a child for NJ insertion by radiology	
1	**Scope** This applies to all staff who are preparing a child of an NJT/OJT insertion by radiology
2	**Equipment and Support** See Appendix 2 for equipment that will be required to facilitate NJT/OJT insertion. Also prepare the appropriate equipment required to safely transfer a child to radiology, such as: • Minimal Appropriate size O2 mask and appropriate size yanker sucker • Consider additional equipment depending on the child's medical needs • LOCKSIP document/ NJ Sticker/ continuation sheet whichever is appropriate • 2 NJs of the same and appropriate size, see appendix 3 for details All of this depending on the medical needs of the child. Discuss with nurse in charge, and ensure that appropriately trained staff is available for in patient transfer. An appropriately trained nurse must be present during NJ/OJT insertion to provide suction as required, and give O2 support if necessary.
3	**Preparing the child** Ensure that the child and family are aware and understand what is happening, and gain informed consent; consider if the patient needs any sedation beforehand to make the passing of the NJT/OJT more comfortable. **Do not** pass the NJ or an NG before radiology as they will pass to NG.

Appendix 2: Bedside insertion equipment selection

<table>
<tr><th colspan="2">To guide the selection of equipment for the safe insertion and placement checking of blind bedside nasogastric tubes (NJT) / Orogastric (OJT)</th></tr>
<tr><td>1</td><td>Scope
This applies to all staff undertaking blind bedside NJ/OJ placement in infants and children</td></tr>
<tr><td>2</td><td>Nasojejunal Tubes
Medicina tubes should be used for NJT insertion as they can last up to 90 days according to the manufacturer. The indwelling time is reduced to 30 days for intubated patients due to risk of VAP. Clinical judgement is still required as to whether the tube needs to be changed earlier or later.
NJ Tube Size
Picking the right size tube ensures adequate flow of feed/fluid to the patient while causing minimal discomfort. There is no official guidance for NJT sizing but below are the sizes that have been passed with no reported issues, based on the weight of the child (Ellett and Beckstrand, 2001).
<table>
<tr><td><2KG</td><td>5FR</td></tr>
<tr><td><10KG</td><td>6FR</td></tr>
<tr><td>>10KG</td><td>8FR</td></tr>
<tr><td>Adolescent</td><td>10FR</td></tr>
</table></td></tr>
<tr><td>3</td><td>Syringes
a) Infants and Children – 20ml or 60ml enteral syringes should be used, although 5ml can be used for Neonates and Small Infants.
b) All enteral feeding systems will consist only of enteral feeding licensed plastics.
c) All enteral feeding systems used now are EN-FIT, to reduce compatibility with other routes, reducing risk of medication errors.
d) Three-way IV taps must not be connected to any enteral feeding device.
e) Syringes or adaptors that can connect to any other type of IV plastic used within UHL must not be used.
f) Please note that within UHL, all oral/enteral syringes must only be used once before discarding.</td></tr>
<tr><td>4</td><td>pH paper
a) In line with NPSA Alert NPSA/2016/PSA002 all pH indicator paper must be CE marked and intended by the manufacturer to test human gastric aspirate.
b) Within UHL, Medicina CE marked pH paper test strips 0-6pH with 0.5 pH increment markers are used.
c) Each test and test result must be documented on a chart kept at the patient’s bedside (NPSA 2011)
d) The NPSA recommend a pH 5.0 or below on first test to confirm for stomach acid. Two qualified members of staff must independently check to confirm the reading. A confirmed placement requires a PH 5.5 or lower.</td></tr>
<tr><td>5</td><td>Tube Securing
a) The tube should be safely secured to the side of the face by a clear tegaderm dressing, so that measurement can be seen, with a hydrocolloid dressing (e.g. duoderm, comfeel extra thin, silltape) beneath the tube to aid pressure relief and maintain skin integrity.</td></tr>
</table>

	b) Neonates must only have an omfeel/duoderm base below the tegaderm on top of the NJ tube, and steristrips.
6	**Other Equipment** a) Plastic Aprons, Clean Gloves from a dedicated box, Orange Clinical Waste Bags b) Hard Plastic Tray or Trolley c) Nutrison Sterile Water labelled with time and date of opening - to flush the tube after aspiration and confirmation of gastric placement. Flushing is not required for babies on the neonatal Unit d) Dummy, Feeding Bottle or Drink with a straw (*if appropriate*) e) Suction and Resuscitation equipment within easy reach f) NJ tube sticker to put in medical notes/ LOCSSIP, or continuation sheet following insertion of every tube. g) Blanket to swaddle child *(if appropriate)* h) Contact play specialist for support for distractions.

Appendix 3: Bedside insertion

Blind Bedside Insertion of an NJT/OJT	
1	Prepare all of the necessary equipment as stated as above (appendix 1). Ensure that the patient and their family are informed about the procedure and possible risks. Also ensure that the patient made as comfortable as possible, using sedation if required.
2	**Measure for tube placements:** If measuring for an OJ, start the measurement from the mouth, not the nose. See Appendix 5 for pictures for measurement. Infant: • Place the tip of the tube against the nose • Run the tube along the face to the ear • Run the tube down to the mid-point between xiphisternum and umbilicus. (Note distance A) • Continue to right iliac crest. (Note distance B) Child: • Place the tip of the tube against the bridge of the nose. • Run the tube along the face to the ear. • Run the tube down to the mid-xiphisternum. (Note distance A) • Continue to right iliac crest. (Note distance B)
3	**Passing down to NG (Refer to Insertion and management of nasogastric and orogastric tubes in neonates, infants, children, and young people, UHL policy for full information)** Throughout this procedure use APTT to reduce risk of infection, and also consider the needs of the child during as well. **Never use an existing NG to push to an NJ, always insert a new NJ.** Seek the support of a member of staff, or play specialist to help keep the child comfortable and still.

	• Wash hands, and put on appropriate protection • Place all required equipment on a clean tray • Pause any feed that is being given, use clinical judgement for enough time to pass for absorption to reduce risk of vomiting. Consider if the child requires feed for metabolic/endocrine issues, if they will become hypoglycaemic quickly if feeds and stopped, and discuss with the team regarding this. • If the child is small enough, consider wrapping them in a swaddle. • Measure distance A and B • Position the child on their right side, with the bed tilted up 15-30 degrees to help with insertion into the jejunum. • Ensure the nasal cavity is clear of debris and ask (if able) which nostril they would like • Remove NJ tube from packaging and remove guidewire as this is not required for blind bedside placement. • When removing the tube from the packaging ensure that it is not split and is intact. *Also pass air through the tube to ensure that there is no blockage*. Dip the end of tube into sterile water to ease the passing, do not use gel or anything similar as it may affect the PH reading. • Tilt the child's head slightly forward and gently pass the tube down the nostril to the distance of A, encourage the child to shallow, give small amounts of water if appropriate, or give a dummy, to help pass the tube. • **Never pass the tube against resistance to avoid trauma** • **If the child shows signs of breathlessness or severe coughing then remove the tube immediately as it may of gone down the trachea** • When at distance A, have an assistant hold the tube or place a dressing on, so that the PH can be tested to check if it is in the stomach. • Test PH to check is tube is in the stomach Use UHL NG/OG policy with this step for full information
4	**Testing to ensure NJ is in the stomach** Use a 5ml syringe for aspirating a neonate, 20ml for an infant, and 50ml for anyone else, using a PH strip to find the PH. An acceptable level is between 1-5.5, be aware if the child has had any PPI, or other gastric protection which could increase the PH, if able, hold off administering these drugs or insert the tube a few hours after administration. If unable to gain a PH reading use these techniques : • Rolling the child from left to right, or ask them to move • Advance or pull the tube by 1-2cm • Give mouth care e.g. water sponge or brush their teeth to stimulate gastric acid production • If able, give a small amount of fluid to swallow • Wait half an hour and aspirate again If you are still unable to gain a reading, an x-ray can be used to confirm position or attempt to pass another tube. Consider the needs of the child - if they are distressed and if this is causing unnecessary exposure to radiation. If the tube is confirmed in the stomach by X-ray, ensure that the person confirming is trained to read X-rays, and that they document correct placement in the patient notes.

5	**Techniques to NOT use when confirming placement** • Do not use the 'woosh' test by passing air down the tube and listening to the stomach • Do not confirm placement on presentation of aspirate • Do not use litmus paper to measure PH • Do not push water down the tube
6	**Passing the NJ to the small bowel** **Flush the tube with 2mls of water prior to each advancement** to encourage peristalsis and then slowly start to advance the tube: 1) For INFANTS and SMALL CHILDREN: 2-4cm every 5-10 minutes 2) CHILDREN and TEENAGERS: 4-6 cm every 5-10 minutes • Flush with water prior to advancing each time until Distance B has been reached. • Each time the tube is advanced note down the length in centimetres to confirm it has not advanced out/ been pulled. • If any resistance is felt, try to flush with water to aid passage, if resistance is still felt pull back a small amount and try again. • NEVER push against resistance.
7	**Confirming NJ position** An x-ray **MUST** be used to check position of an NJT/OJT, and needs to be confirmed by a suitably qualified doctor or nurse practitioner to ensure that the position is satisfactory. This must be documented using the sticker in Appendix 4 or documented in clinical notes, sticker, or LOCSSIP with measurement.

Appendix 4: Ongoing care

Procedure for On-going Care of Nasojejunal/orojejunal tube in infants and children	
No	Action
1	**Tube flushing** • **When accessing an NJ/OJ there is an increased risk of infection due to it bypassing the stomach acid and its antimicrobial defence, so it is important to always approach an NJ aseptic technique.** • **See PICU Feeding Guidelines for details of drugs that can/cannot go NJ** • The tube must be flushed with sterile water– see the child/infant's individual feeding plan and refer to the manufacturer's guideline on suitable amounts. • In most infants and children the tube must be flushed before and after administering feeds, as well as before, after and between medications. • If it is not possible to flush the tube due to a blockage you must consider replacing it. **Attempting to flush a blocked tube may result in tube rupture with damage to the surrounding gut, or aspiration of fluid if excessive force is used.** Escalated to senior ward staff if tube becomes blocked.

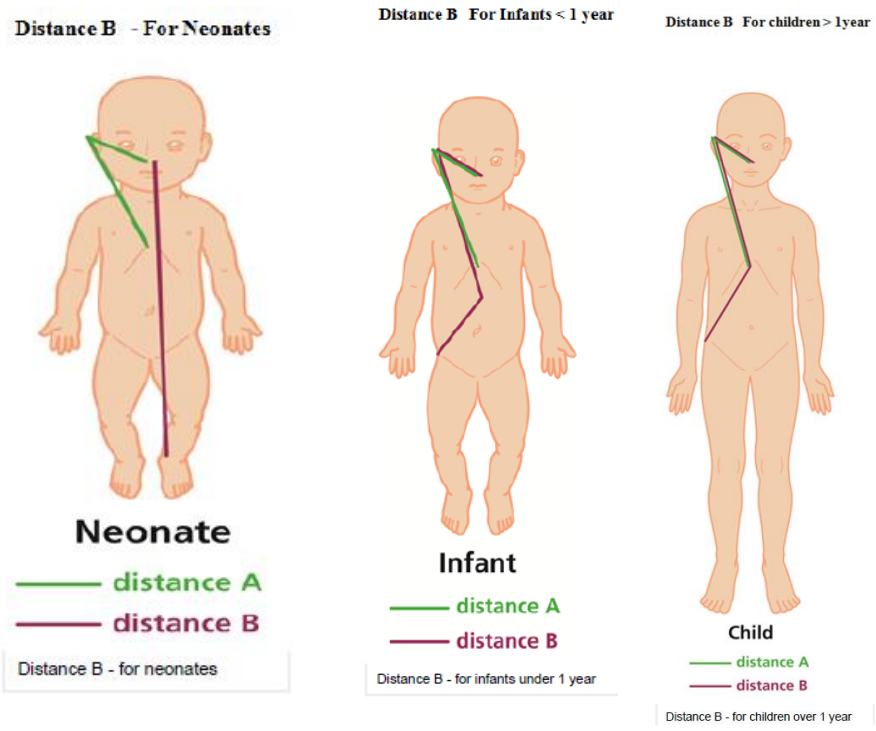
2	**Patient monitoring** • **Diarrhoea can be a sign of an NJ feed being given at too fast a rate, and also bolusing a large amount of fluid/medications** <u>Respiratory Status</u> – • Observe for changes in the usual respiratory pattern indicating respiratory distress • Increase/Decrease of respiratory rate • Coughing or increased mucus production • Pyrexia or Tachycardia – which may indicate chest infection • Skin pallor/cyanosis • Oxygen Saturations level if being monitored • Change in conscious level, response or behaviour • Feeds must be stopped immediately with any coughing, gagging or vomiting or signs of respiratory distress and must not be commenced until the tube position is confirmed <u>Tube Trauma</u> – • Due to risks stated below a twice daily best shots are required to monitor the skin integrity. • Bleeding, soreness or ulcers visible in the nasal cavity, on the nares or on the cheek • Coughing or vomiting blood stained fluid, increase in swallowing action especially if the child is in a recumbent position and which may indicate post-nasal trauma • Skin integrity compromised by adhesive or tube pressure <u>Fluid & Nutritional</u> – • Before commencing NJ feeds a PYMS Nutritional Assessment must be completed and re-assessed at least weekly. For babies on the Neonatal Unit the nutritional status is assessed as a minimum daily. • All enteral, oral intake, vomit, urine, bowel movements and NG aspirate should be recorded on the Fluid Balance Chart. On neonates feeds are recorded on the ITU chart or the special care documentation. • Check tube for signs of leakage or tears from feeding ports or the tube to prevent loss of gastric or nutritional fluid • **All infants and children receiving enteral nutrition must be weighed twice weekly unless otherwise directed.** <u>Feeding</u> – • Unless contra-indicated children should be fed with the bed sat up at an angle of 15-45 degrees to aid digestion, not prone, as prone positioning can increase the risk of aspiration. Babies on the neonatal unit can be nursed prone when receiving feeds via NJT/OJT if they are on continuous monitoring. • If milk feed or enteral feed is not the usual source of nutrition, the child must be referred to the Dietician for assessment and a feeding plan, which is agreed with the medical staff, prior to commencing feeds. • All infants and children receiving NJ/OJ feeds must have a daily feeding plan with consideration to their fluid and nutritional requirements • Minimal handling and an aseptic no-touch technique (ANTT) must be used to connect the administration set to the enteral feeding tube. • NJ/OJ feeds must be administered via a slow rate continuous feed which is

	given up-to 20 hours per day with a rest period before commencing the next feed. As the jejunum has little reserve and will not tolerate bolus feeds. • Pre-packaged feeds from a manufacturer once opened can be hung for a maximum of 24 hours, admin sets must be changed and labelled with change time and signature every 24 hours. Feeds decanted into a bottle or container can be hung for 4 hours only. • Feeds made by the milk kitchen can only be kept in the fridge for 24hrs and then need to be discarded. • Formula milk is made up for each feed if it is powder. If the formula milk is 'ready-made' it is best to follow the manufacturer's guidelines on storage, which would normally be 24 hours. • Expressed breast milk must be discarded : 1) Freezer: 3 Months 2) Refrigerator 2-4°C: 48 hours 3) Room Temperature 19-23 degrees: 6 hours *When in hospital* • Thawed Milk can be refrigerated for up to 24 hours (please refer to UHL 120/2008 **Breast** Feeding Support UHL Obstetric Guideline_ • If the child is experiencing Nausea and Vomiting while being fed via NJ then it may be related to: • Bacterial Contamination • Delivery too fast/ volume of feed • Excessive air in jejunal • Constipation or related to disease/treatment • Diarrhoea may be related to: • Medication such as antibiotics • Chemotherapy • Laxatives • Constipation may be related to: • Low fluid intake Small bowel Infection • Low fibre intake • Poor gut motility • Medication such as analgesics, antispasmodics, iron supplements and some anticonvulsants
3	**Oral Hygiene:** It is essential to maintain regular oral hygiene in children and infants who are not orally fed. For babies on the Neonatal Unit this must be carried out every 6 hours as a minimum. Follow the mini mouth care bundle on Nerve Centre. It is essential to encourage infants and children to take oral diet if they are able. The use of a dummy in infants is also important, and in older children, it is good to encourage them to use their mouth in play activities, to maintain and develop their normal sucking/feeding responses. Inclusion in family meal times and feeding at the meal table can also help to improve socialisation. Document this care in the mini mouth care bundle on Nerve Centre, if unable document in notes

4	**Administration of Medicines via an NJ Tube:** • **See PICU Feeding Guidelines for details of drugs that can/cannot go NJ** • To minimise the risk of complications associated with the administration of medications via a Nasojejunal tube, please note that it is imperative that the correct route of administration is determined before administration. • A Medication must only be administered via a Nasojejunal tube if it has been prescribed (route NJ) by a Registered Practitioner. • If you have any concerns about the medicine's absorption, please contact the relevant pharmacist. • The person administering the drug must check the Six Rights (***right*** *patient,* ***right*** *drug,* ***right*** *dose,* ***right*** *route,* ***right*** *time &* ***right*** *documentation)* • The person administering the drug must carefully check that the right tube is identified prior to the administration of medication. • The drug must be administered to the patient using an enteral syringe. • If there is any concern about the absorption of medications administered via the Nasojejunal tube you MUST consult the Pharmacy Department. • If the person administering the drug is in any doubt about any of the above, they should not proceed with the administration of the Medication. • Where possible medication given via NJ/OJ tube should be dispensed as a liquid /solution medication • If medication not in liquid form, check it's solubility with pharmacist – certain medications should not be crushed, e.g. enteric coated, modified and slow release tablets or cytotoxic preparations. Check with pharmacist if medicines can be mixed together. • Large particles or insoluble preparations may block the tube, resulting in the need for tube replacement
5	**Nasogastric tube with an NJ/OJ** • A child who has an NJ may also need an NG tube, this may be due to certain medications that they require which cannot be absorbed into the small bowl. • If a child does also have an NG, follow the UHL NG/OG policy for maintenance • Something to note when aspirating a child's NG who also have an NJ, is to monitor the aspirates, as if there is evidence of feed in an NG aspirate then it could be sign that the NJ may of become dislodged, as such will need to be escalated to the senior team. • Weigh the issues of having both an NJ and NG tube as, if the child has a compromised airway, potential infection risk, or tissue viability concern. • See the NG/OG policy for insertion and maintenance of an NG.
6	**Removing an NJ** • Ensure that the NJT/OJT's removal has been agreed by medical team, dieticians, and that the patient and family are aware and understand the reasons for removal. • Carefully take off the tape holding the tube in place, use "Apeel" to aid removal, to help protect the skin. • Slowly remove the tube, keeping a steady pace. • Coughing and gagging during removal can be normal
7	**Discharge with an NJ** If a child is going to be discharged with an NJ, ensure that dieticians are aware of this

	so that they can liaise with the child's community team, who will overseeing the child's nutritional care once home. It is also recommended that the nurse who is caring for the child rings the child's community team to ensure that they are aware of the child's needs. The nurse should also check whether a feed pump is on the way to the child's home or if the pump is being sent to the ward that they are on. When the child is discharged home, here is a list of points that need to be met: • The feed pump as well as 7 days' worth of feeding equipment, syringes, giving sets and feed, must be either given to the family or delivered to their home. (If it's a bank holiday then 10 days of equipment will be needed) • An NJ of the same size and model must also be given – so that if the tube dislodges then the parent can take this with them to hospital for it to be passed again, in order to reduce any delay. • A feeding plan must be put in place by a dietician and the family aware of what to do when home • Ensure that the parents are trained and competent in caring for NJs and administering feed and/or medication through them, and that a plan is in place in case the tube becomes dislodged. If the child was admitted with NJ already in situ at home then no equipment should be needed as they should have this at home. List of contacts in the community: Leicestershire: Home Enteral Nutrition Service (HENs) and The Diana Service Northampton: Discuss with dietician Derbyshire: Discuss with dietician

Appendix 5: Measuring distance



Appendix 6: Sticker

INSERTION OF A NASOJEJUNAL TUBE

CHILDREN, INFANTS, & NEONATES

Manufacturer of NJ Tube.....

Type of NJ Tube.....

Batch No.....Date Inserted.....

External Length of Tube (cm) .....

Proposed Date for Tube Replacement.....

Inserted by: Signature.....

Print Name.....

Verification of nasojejunal tip placement by X-Ray

Checked by (Medical or Radiology staff required)

Signature.....Time.....

Print Name.....Date.....

THIS MUST BE COMPLETED & ATTACHED WITHIN THE MEDICAL NOTES