

## **NG** Tube Feeding

Reference Number: F4841 Date of Response: 21/10/2022

Further to your Freedom of Information Act request, please find the Trust's response, in **blue bold text** below:

### Royal Devon's Eastern FOI Office Response

I would be grateful if you could provide copies of any pathways/protocols that relate to the use of Nasogastric (NG) feeding tubes within your trust.

In particular please advise if there is a pathway/protocol relating to the removal of/weaning off of the NG feeding.

Please find attached policy.



Nasogastric, Orogastric, Nasojejenal	tion, Maintenance and Removal of and Decompression/ Drainage Tubes in d Neonates Policy
Post holder responsible for Procedural Document	Senior Nurse for Paediatrics & Neonates
Author of Policy	Paediatric Liaison and Transition Nurse
Division/ Department responsible for Procedural Document	Specialist Services Paediatric and Neonatal Ser ices
Contact details	
Date of original document	New document (see histor section below)
Impact Assessment performed	Yes/ No
Ratifying body and date ratified	Clinical Effectiv ess Committee: 6 March 2020
Review date	January 2 24 (every 4 years)
Expiry date	July 2024
Date document becomes live	8 March 2020

Please *specify* standard/criterion numbers and tick ✓ other boxes as appropriate

Monitoring Information		Strategic Directions – Key M	ilestones
Patient Experience	1	Maintain Operational Service Delivery	
Assurance Framework	<b>*</b>	Integrated Community Pathways	
Monitor/Finance/Performa nce		Develop Acute services	
CQC Fundamental Standar	de Degulation:	Infection Control	✓
CQC Fundamental Standar	us - Regulation.		
Other (please specify):			
Note: This document has b implications	een assessed for ar	ny equality, diversity or human righ	ts

### **Controlled document**

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Insertion, Confirmation of Position, Maintenance and Removal of Nasogastric, Orogastric, Nasojejunal and Decompression/Drainage Tubes in Paediatrics and Neonates Policy

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Full H	listory		Status: Final
Version	Date	Author	Reason
1.0	March 2020	Paediatric Liaison Nurse Senior Nurse for Paediatrics and NNU	Insertion, Confirmation of Position and Removal of Nasogastric, Naso-jejunal, Orogastric and Decompression/Drainage Tubesin Adults, Paediatrics and Neonates Policy spilt into two seperate policies one for adults and one for paediatric / neonates to ensure it is f for purpose and user friendly
1.1	August 2020	Paediatric Liaison Nurse Senior Nurse for Paediatrics and NNU	Altering of w rding n Key Points to read the pH is above 5.5, rather th n, pH is 5.5 or above

Associated Trust Policies/ Procedural documents:	<ul> <li>Consent of Examination or Treatment Policy,</li> <li>Infection Pr vention and Control Policy,</li> <li>Incident Reporting, Analysing, Investigating and Learning Policy and Procedures</li> <li>Health Records Policy</li> <li>NG Policy for Insertion, maintenance and displacement management in Adults</li> </ul>
Key Words	Nasogastric, Insertion of feeding tube, pH aspirate and confirmation of fine bore feeding tube, orogastric, decompression/drainage tube, Chest x-ray interpretation and confirmation of nasogastric fine bore feeding tube, enteral feeding

### In consultation w th a d date:

Nutrition Nurses 01.08.2018

Paediatric Dietitians 11.09.2018

Consu ant Paediatricians 05.09.2018

Bramble Matrons and Sisters 05.09.2018

Paediatric Go ernance Group 11.09.2018

Neonatal Management and Governance Group 14.09.2018

Chair of Nutrition Steering Group 27.02.2020

Clinical Nurse Educators 08.01.2020

Specialist Services DGG Chairs approval 27.02.20

Quality Assured 04.03.20

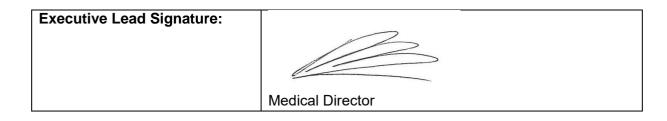
Clinical Effectiveness Committee: 06.03.20

Contact for Review: Senior Nurse for Paediatrics and Neonates

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### **KEY POINTS OF THIS POLICY**

- In 2009, feeding into the lung from a misplaced nasogastric (NG) or orogastric (OG) tube became a Never Event in England (NHS Improvement 2019).
- NG / OG tube position must be tested with pH strip on insertion and prior to every use
- Documentation of insertion and pH readings must be completed as per this policy
- Do not feed or use the NG/OG tube if the pH is 5.5 or above. Escalate and follow advice as per this policy
- Parents should be supported to be involved in their child's care, however, competency must be assessed as per this policy.

### 1. INTRODUCTION

- 1.1 In 2009, feeding into the lung from a misplaced nasogastric (NG) or orogastric (OG) tube became a Never Event in England (NHS Improvement 2019).
- 1.2 This policy is to support staff when inserting and administering feed or medication in a NG, OG or nasojejunal (NJ) feeding tube in paediatrics and neonates in the Royal Devon and Exeter NHS Foundation Trust (hereafter referred to as the 'Trust').
- 1.3 The care of children requiring gastric aspiration with decompression requiring a wide bore Ryles tube is included in this policy.
- 1.4 Confirming correct positioning of NG/OG tube is based upon NICE Guidance (2017) and NHS Improvement (2016, 2019)
- 1.5 Four guiding principles inform the monitoring and compliance of NG/OG tube care in accordance with NHS Improvement (2016)
  - Undertake the correct insertion of a NG/OG tube
  - Apply recognised methods when confirming the correct position of a NG/OG tube
  - Demonstrate effective maintenance and care of the NG/OG tube
  - Recognise and manage NG/OG tube displacement risk
- 1.6 Failure to comply with this policy can result in dis iplinary action.

### 2. PURPOSE

- 2.1 Patients requiring NG/OG/NJ feeding tubes require a standard of care ensuring all potential risks are minimised.
- 2.2 The same precautions and procedure apply in the care of the wide-bore Ryles tube inserted for gastric aspiration, and d compression of the stomach.

### 3. **DEFINITIONS**

- 3.1 The most common types of tube in use in the Trust and demonstrated for the purpose of this policy are:
  - Nasogastric r NG Tube: The insertion of a tube into the stomach via the nas pharynx fo the purpose of stomach deflation, fluids, nutrition and the administration of medication to patients who are unable to obtain adequate nutrition, fluids or medications by swallowing.
  - Orogastric or OG Tube: The insertion of a tube into the stomach via the mouth for the
    purpose of stomach deflation and for the provision of fluids, nutrition or medications in
    the neonatal cohort who are unable to obtain adequate nutrition, fluids or medications
    by swallowing.
  - Wide Bore Ryles Tube: The insertion of a tube into the stomach via the nasopharynx for the purpose of gastric aspiration and decompression. (A NG or OG tube may be used for this purpose also).
    - They are not for enteral or medication. A specialised feeding/decompression/drainage tube is available, if appropriate.
  - Nasojejunal or NJ Tube: These are similar to an NG tube except that the tube is

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passed onwards from the stomach and into the jejunum (the middle section of the small bowel). Pharmacy review of medicine administration in the jejunum is necessary. Sterile water is required for flushing NJ tubes.

### 4. DUTIES AND RESPONSIBILITIES OF STAFF

- 4.1 The **Chief Executive** has overall responsibility for the effective implementation of this policy throughout the Trust.
- 4.2 The **Medical Director (Executive Lead)** is responsible for ensuring the policy is embedded in practice and is the second point of contact for the author.
- 4.3 The **Matrons** are responsible for ensuring staff are competent and up to date in the insertion, care and management of feeding tubes in their clinical areas.
- 4.4 The **Clinical Champions** are responsible for ensuring updating of knowledge teaching and attend champion meetings.

### 4.5 Clinical Nurse Specialist in Nutrition Support

- Reviews enteral policies and guidelines in conjunction wi h the sen or nurses for Paediatrics and neonates.
- Audits best practice quarterly, reporting to the Nutrition S eering Group monthly of practice changes, trends and patterns for action and improvement.
- Advises and guides on Patient Safety Alerts.
- Clinically leads good practice, updating inical practice with new procedures and evidence base knowledge and skill.

### 4.6 Registered Staff

- Have a responsibility to ensure they follow this policy, and are competent to practice safely.
- Teach and assess parents/carers/unregistered staff to administer feeds as appropriate.
- 4.7 **Unregistered Staff have** a responsibility to follow this policy, are competent to practice safely and work under t e supervision and direction of a registered member of staff.
- 4.8 **Student nu ses** have a responsibility to follow this policy, are competent to practice safely and work under the supervision and direction of a registered member of staff.

### 4.9 The Nutri ion Steering Group

Thi group has responsibility for the overall management of NG/OG/NJ/drainage and decompression tubes, their insertion, maintenance and care, with risk management strategies applied within the Trust. Incidents reported are investigated appropriately and action plans acted upon and learning disseminated.

### 5. TRAINING AND DEVELOPMENT – ASSESSMENT AND COMPETENCY SIGN OFF

### 5.1 Registered staff

All staff involved in the insertion and management of NG/OG tubes are required to complete the competency assessment for registered and non-registered practitioners (see competency framework on Hub). The NMC Standards of Competence must be adhered to (NMC, 2014). The learner's Electronic Staff Record should be updated.

### 5.2 Non-registered staff

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All non-registered practitioners involved in the insertion and management of NG tubes are required to:

(a) be assessed as competent in the 'Exeter Neonatal Unit Orientation Training Programme for Band 3/Band 4, respectively, Nursing Staff'. Specifically the 'Key Competency - The learner is able to safely deliver enteral feed via alternative methods.'
(b) have completed the Competency assessment for registered and non-registered practitioners. The learner's Electronic Staff Record should be updated.

### 5.3 **Student Nurses**

Student nurses can undertake supervised practice in the insertion, maintenance and care of a NG/OG tube after:

### (1) In the University setting:

- (a) having received clinical skill training at the University, in Year 2
- (b) having been assessed formatively in the clinical skill, in a theoretical setting. At this point students will be deemed proficient in having the related theory

### And

### (2) In the clinical practice area:

- (a) having demonstrated the ability to rationalise the requirement, risks and rationale for the procedure
- (b) having observed this practice by other registered practitione s
- (c) having been observed themselves undertaking the procedure safely and completed the Competency assessment for registered and non-r gistered prac itioners

The above is based on the current Plymouth University student nurse training programme. This should be reviewed for those not affiliated with this university.

### 6. INSERTION OF FEEDING TUBES

### 6.1 Neonates NGT/OGT

### 6.1.1 **Equipment**

- non-sterile gloves
- appropriate-sized infant feeding tube
- 10ml syringe
- pH testing strip
- duoderm cut to size
- tegaderm ut to ize
- NNU & Bramble Ward NGT/OGT Insertion Record
- Ensure the e is assistance of another competent healthcare professional (HCP) to support

### 6.1.2 Procedure for insertion and securing of tube

- Prior to the procedure, if time and the baby's condition allows, the parents should e informed and their verbal consent sought
- Wash hands
- Prepare equipment
- Measure the length of the nasogastric tube by measuring from the tip of nose to the tip of the ear lobe, down to the xiphisternum, plus one centimeter. A tape measure should be used
- Lie the baby on its back and wrap securely in a blanket
- Wash hands again and put on gloves

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### Nasogastric Insertion:

- Stabilise baby's head and insert tip of tube into nostril, directing it owards the occiput
- Advance gently to the oropharynx and down to the des ed length.

Orogastric tubes should be used for those patients wit known head injury or anatomical defects to the skull.

### Orogastric Insertion:

 Stabilise the baby's head and insert tip of tub—into mouth and gently advance into the oropharynx and down to the desired length

### Then

- Determine the tube position by aspirating a mall amount of stomach contents with a 10ml syringe
- Test the aspirate with the pH testing strip (see below), check with a second competent person and record
  - o If PH is **between 1 and 5.5** secure the tube to the infant / child's face using the duoderm and tegaderm.
  - o If PH **above 5.5**, o no a pirate obtained, remove the tube and begin the procedure agai
- Secure the tube to the baby's face using the duoderm and tegaderm
- Complete NNU & Bramble Ward NGT/OGT Insertion Record and any other local documentation
- Change the tube every 7 days unless otherwise indicated

### 6.1.3 Feeding the Baby through an NG/OG tube:

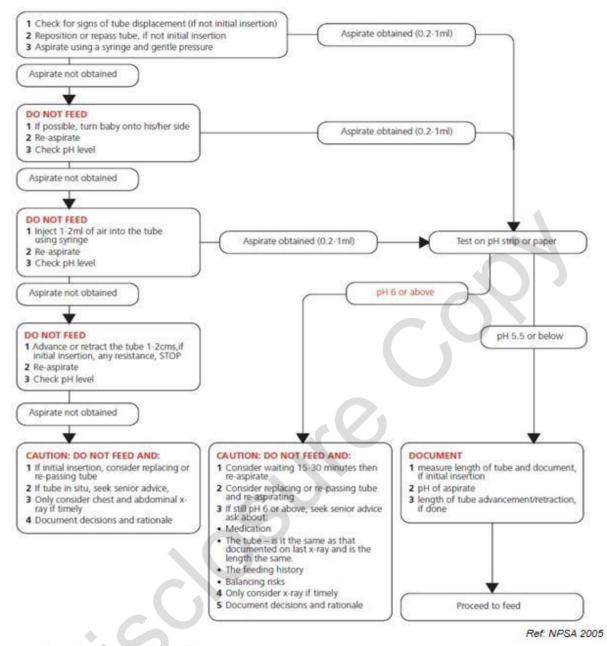
- D termine tube placement using the flow chart (see below)
- Utilise other objective means to determine correct tube placement
- Once satisfied that the tube is correctly placed, attach 20ml syringe (plunger removed) and fill with feed to the required amount
- Press gently, but firmly, with the plunger until the feed starts to go down the tube. Allow the rest of the feed to be delivered by gravity
- Observe the baby throughout the feed, stopping if there is any sign of distress or vomiting
- Once the feed is completed remove the syringe and close the tube cap
- Dispose of equipment according to policy
- Document and sign according to unit policy

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# FLOWCHART FOR THE POSITIONING OF NASOGASTRIC AND OROGASTRIC TUBES IN NEONATES



### 6.2 Paediatrics NGT/OGT

### 6.2.1 Equipment

- on-sterile gloves
- · appropriate-sized feeding tube
- 20ml syringe
- pH testing strip
- duoderm cut to size
- tegaderm cut to size
- Neonates and Paediatrics NG/OG/NJ Tube Insertion Record
- A drink with a straw or a dummy for the child to suck on to aid insertion if safe
- Ensure there is assistance of another competent healthcare professional (HCP) to support

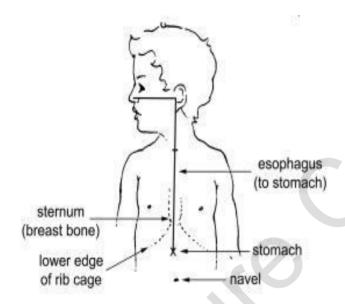
### 6.2.2 Procedure for insertion and securing of tube

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- Prior to the procedure, if time and the child's condition allows, the child and their parents should be informed and their verbal consent sought
- Discuss with the child, if age appropriate, which side they would prefer to have the tube positioned and explain the procedure
- Wash hands
- Prepare equipment
- Measure the length of the nasogastric tube by measuring from the tip of nose to the tip of the ear lobe, down to the midway point between navel and xiphisternum A tape measure should be used
- Find the most comfortable position for the child
- Wash hands again and put on gloves



### Nasogatric Insertion:

- Ensure the chosen nos ril is c ear
- Check that the tube is intact If tube has a guide wire, make sure there are not kinks in wire and it is inse ted correctly (Do not flush prior to insertion)
- Stabilize infant / ch ld's head and insert tip of tube into nostril, directing it towards the occiput
- Advance gently o the oropharynx and down to the desired length

Orog st c tubes should be used for those patients with known head injury or ana omical defects to the skull.

### Or gastric Insertion:

- Check that the tube is intact. If tube has a guide wire, make sure there are not nks in wire and it is inserted correctly (Do not flush prior to insertion)
- Stabilize the infant /child's head and insert tip of tube into mouth and gently advance into the oropharynx and down to the desired length

### Then

- Determine the tube position by aspirating a small amount of stomach contents with a 20 ml syringe
- Test the aspirate with the pH testing strip (see below), check with a second competent person and record
  - o If PH is **between 1 and 5.5**, secure the tube to the infant / child's face using the duoderm and tegaderm.
  - o If PH **above 5.5**, or no aspirate obtained, remove the tube and begin the

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### procedure again

- Secure the tube to the infant / child's face using the duoderm and tegaderm
- Complete NNU & Bramble Ward NGT/OGT Insertion Record and any other local documentation
  - Change the tube every 7 days unless otherwise indicated

### 6.2.3 Feeding the Infant / Child through an NG/OG tube:

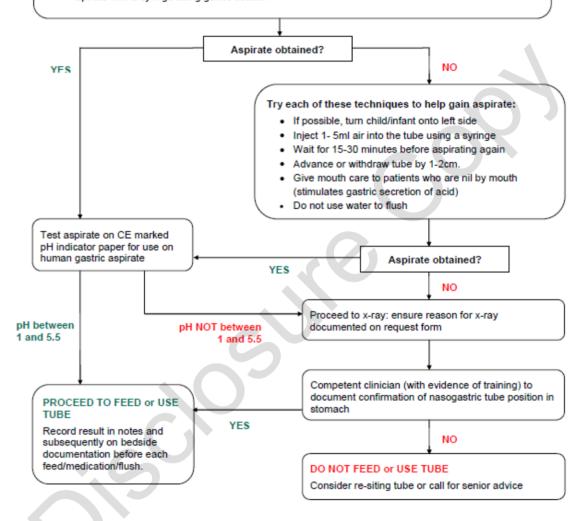
- Determine tube placement using the decision tree (see below)
- Utilise other objective means to determine correct tube placement
- Once satisfied that the tube is correctly placed, attach 20or 50ml syringe (plunger removed) and fill with feed to the required amount
- Press gently, but firmly, with the plunger until the feed starts to go down the tube. Allow the rest of the feed to be delivered by gravity
- Observe the infant / child throughout the feed, stopping if there is any sign of distress or vomiting
- Once the feed is complete, flush the tube with 2-5mls of fresh tap wat r to clear the tube
- Dispose of equipment according to policy
- Document and sign according to policy

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# Decision tree for nasogastric tube placement checks in CHILDREN and INFANTS (NOT NEONATES)

- Estimate NEX measurement (Place exit port of tube at tip of nose. Extend tube to earlobe, and then to xiphisternum)
- Insert fully radio-opaque nasogastric tube for feeding (follow manufacturer's instructions for insertion)
- · Confirm and document secured NEX measurement
- · Aspirate with a syringe using gentle suction



A pH of between 1 and 5.5 is reliable confirmation that the tube is not in the lung, however it does not confirm gastric placement as there is a small chance the tube tip may sit in the oesophagus where it carries a higher risk of aspiration. If this is any concern, the patient should proceed to x-ray in order to confirm tube position.

Where pH readings fall between 5 and 6 it is recommended that a second competent person checks the reading or retests.

www.npsa.nhs.uk/alerts

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### 7. CONFIRMATION OF POSITION

7.1 The position of the NG/OG tube must be checked prior to every use.

pH in the 'safe range' or xray are the only acceptable methods of confirming placement of a nasogastric tube. To date there is no evidence that alternative devices or techniques equal or exceed the accuracy of pH or x-ray for confirming initial placement of a nasogastric tube.

- 7.2 pH in the 'safe range' of 1 to 5.5 can be used as the first line test to exclude placement in the respiratory tract. The normal human stomach has a pH of approximately 1-3 in an empty stomach and approximately 4-5 after food has been eaten. Patients on acid-reducing medication may have a stomach pH level of 6 or above. The pH in healthy lungs is between 7.38 and 7.42.
- 7.3 All pH test strips are CE marked and intended by the manufacturer to test human gastric aspirate. Some pH papers are designed specifically for laboratory test ng and so not appropriate for testing human gastric aspirate.
- 7.4 Each pH test (including failure to obtain aspirate) and test result is documented.
- 7.5 Radiology (x-ray) can be used to confirm placement but should not be used routinely for all patients. Minimising the number of x-rays reduces exposure to radiation, loss of feeding time and increased movement of seriously ill patients in hospital. X-ray will be required if aspirate in the 'safe range' cannot be obtained, and for patients where not only exclusion of respiratory placement, but confirmation of optimum gastric placement is necessary. X-ray may be required in other specific scenarios and patient groups.

### 8. FLUSHING

Feeding tubes are not routinely flushed in neonates. However, in paediatrics, tubes are flushed, once placement is confirmed before, during and after administration of feed or medication to ensure tube pa ency.

### 8.1 Flush liquid

- Under 1/immuno ompromised cooled boiled water
- Over 1 freshly drawn tap water
- Jejunal tubes sterile water

### 8.2 Flush Frequency

Pr and po t feeds medicines and in between a succession of medicines.

### 8.3 F ush Quantity

- Neonates no flush
- 6FR 2mls flush
- 8FR 3mls flush
- 10FR 5mls flush
- 12FR 8mls flush

Correct placement of tube must always be checked before flushing

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### 9. PERSISTENTLY HIGH pH READINGS

In exceptional circumstances, the pH may be consistently above 5.5. This may be due to medication, medical condition or type of feed.

Each time the NG/OG tube is used, it must be remembered that pH in the 'safe range' or xray are the only acceptable methods of confirming placement of a nasogastric tube. It may be necessary to problem-solve and complacency should be avoided. If necessary, senior advice should be sought, x-ray considered, risk assessment undertaken, and only then can an individualised plan of care be put into place.

# 9.1 These checks need to be done to support pH testing, but do not, on their own, confirm the NG/OG tube is in the stomach.

### External length of the NG tube

Be aware of the length of the NG/OG tube that is visible and taped to the face A note of the length of the NG/OG tube must be made by marking it and documenting measurement of the tube when correctly positioned. This will make it easier to identify if the feeding tube has been pulled out or d slodg d.

Correct external length of the NG tube alone does not confirm correc placement.

### Childs' behaviour

Make sure the child is behaving in their normal manner. ook for igns that the child is unwell and note any recent history of coughing, vomiting, retching or choking. Particular care must be taken with children who have reduced conscious level and/or poor swallowing as they may not behave as expected when the NG/OG tube is misplaced.

The absence of choking or retching does not alone indicate that the NG tube is in the right place.

### Nature of aspirate

The aspirate should be fairly eas ly obtained. If the NG/OG tube has misplaced into the small intestine, aspirate may be reduced in volume, bile-stained (green) and have a higher pH reading. If wrongly positi ned in the lungs, aspirate may be large amounts of air. If the NG/OG tub is in the oesophagus, there will be difficulty in getting aspirate and the external ength of tube may be longer than normal.

Aspiration of fluid lone is no guarantee that the tube is in the stomach.

# 10. NE NATES IN PAEDIATRICS NASOJEJENAL (NJ) INSERTION PROCEDURE and USE

A Nasojejunal (NJ) tube is a flexible tube that can be inserted transnasally through the pyloric sphincter into the jejunum via the nasal passage.

NJ tubes can be placed in the following ways:

- ENDOSCOPICALLY.
- RADIOLOGICALLY.
- BEDSIDE PLACEMENT. Tube is self propelled through the pylorus.

The NJ tube position must be confirmed prior to use by abdominal X-ray following insertion since pH aspiration techniques are inconclusive for this type of tube.

It is not possible to aspirate and test pH of the jejunal contents to confirm position of a NJ tube.

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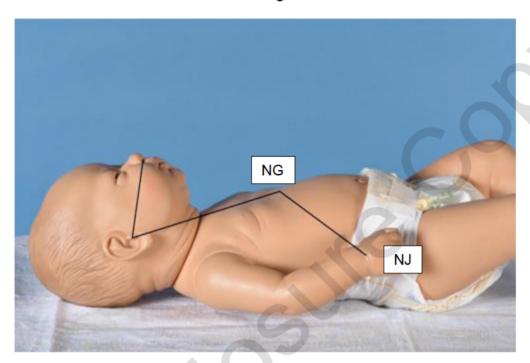
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It is therefore essential that he external length of the NJ tube should be measured, marked and documented on insertion and checked prior to commencing each feed to confirm it has not altered from initial placement.

### 10.1 Equipment

- Non-sterile gloves
- · Appropriate sized feeding tube
- 20ml syringe
- pH testing strip
- Duoderm cut to size
- Tegaderm cut to size
- Ensure there is the assistance of another competent hcp to support

### 10.2 Procedure for insertion and securing of NJ tube



- Measurement should be mad us ng a disposable tape measure
- Measure from nose ear xiphisternum right lower abdomen (right iliac crest)
- Note measurement at xiphister um (NG) and right lower abdomen (NJ)
- Pass tube via nostril as per NG tube policy to NG measurement and then aspirate tube to obtain gastric fuid. Aspir te must be Ph 5.5 or below to confirm gastric placement before proceeding
- Flush the nasoi jun I feeding tube with 1-2mls sterile water to eliminate any gastric residual
- Continue to advance Nasojejunal feeding tube slowly at intervals of approximately 20 minutes until second mar er (NJ) has been reached and secure in place
- Ensure meas ement marking at nose on nasojejunal feeding tube is visible for continuous observation
- Aspirate fluid and using ph indicator stick and test for Alkaline reaction obtaining Ph ≥7
- If the aspirate ph < 6.0 the nasojejunal feeding tube is still in the stomach and must not be used
- X-ray to confirm position is essential before use
- NJ position may need to be confirmed by x-ray following risk of tube displacement e.g. following vomiting, retching or coughing, or if the external tube length has changed, or if the fixation tape has come loose
- Record nasojejunal feeding tube size, insertion length, date of insertion, batch number and initial pH on feeding chart, care plan and label enclosed in the nasojejunal feeding tube package

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Jejunal feeding tubes are at greater risk of blockage compared with gastrostomy tubes. Adequate flushing, before and after feed and medications, can help to reduce this risk. Sterile water must be used for jejunal feeding tubes in hospital as the post-pyloric positioning by-passes the anti-microbial protection of the gastric acid.

It is essential to ensure medications are in a suitable form for jejunal delivery e.g. liquid or dispersible so this should be discussed with pharmacy.

### 11. REMOVAL OF NG/OG/NJ TUBE

Do not do this procedure directly following a feed as it may induce vomiting.

NGT/OGTs should be changed weekly or according to manufacturer's instructions

- Take disposable tray, bag and protective gloves.
- Explain procedure and gain informed consent from parents as appropriate.
- Note which nostril is utilized if undertaking to replace tube.
- Carefully remove tape, (see guidelines for skin integrity). Apeel solution may be used to help with this.
- Apply protective gloves
- Gently and quickly pull tube out.
- Dispose of used items as per unit policy.
- Document procedure and tolerance

### 12. PARENTS

### 12.1 South West Neonatal guideline and competency

To ensure parents are fully involved in the repart baby/child's care when in hospital, they are often taught how to administer feed and or medication via NG/OG tube. It is important to ensure that the same safe principles and assessment of competence is undertaken. The following guidelines and competencies are in place and should be followed:

- <u>SW Neonatal Network guideline</u> (South West Neonatal Network Executive Board: Parent Education: Tube Feeding Guideline)
- SW Neonatal Network competency
   (South West Neonatal Network Executive Board: South West Neonatal Network
   Guideline: Nasogastric Tube Feeding Learning Pack

There is also a General Information Booklet "Nasogastric Tube Feeding. Information for Parent Carers and Older Children available to support the discharge of children going h me with a NGT. See below.

### 13. DISCHARGING INFANTS AND CHILDREN HOME WITH A NASOGASTRIC TUBE.

NG displacement is a Never Event so it is vital that:

- Parents and carers looking after children at home with an NG tube, are safe and competent to check and use the NG tube before discharge
- The MDT has agreed that NG feeding is in the child's best interests
- Supportive and protective measures have been considered

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### 13.1 Principles of a safe discharge with NG tube in situ for feeding a child

Best Interest Agreement	The Paediatrician and Dietitian +/- Matron have signed the discharge paperwork to agree that NG feeding at home is in the child's best interests and the risks are understood
Discharge Planning Meeting	A discharge planning meeting should involve parents/carers, Paediatrician, Ward Nurse, Dietitian, speech and language therapy, HV, GP and Community Children's Nurse. Other members of the MDT should be invited as appropriate.
Parents/carers have demonstrated consistent competency	Carers being trained need to have demonstrated competency for checking and using the NG at least three times independently to nursing staff prior to being signed off as competent
Parents/carers will not be trained to pass the NGT whilst in hospital	Parents have NOT been trained to pass an NG tube (this process is initiated and completed in the community because it is difficult to find sufficient consistent opportunities on the ward to demonstrate competence)
Feeding regime is suitable for home care	Dietitics should provide an individualised care plan on di charge detailing overall aims of NG feeding, details of feeding regimen and a monitoring plan. Feeding regimens for home should be feasible for parents to manage at home. Parents/c rers and the MDT should be clear as to which oral food/liquid consistencies and medicines are safe to give by mouth or whether the child needs to remain NBM until reassessed.
Discharge paperwork is completed and disseminated	The standard NG discharge paperwork is totally completed. This ensures  • all relevant professionals re in agreement to discharge  • there is robust documentation of the process  Parents/carers should be g ven a copy for home as a parent held record for CCNs to acc ss
Unrushed and supported discharge home.	The discharge has been planned in advance, with no 'rush' to discharge the chi d. Avoid discharges during periods when no community support is available (e.g. Fri, Sat, Sun)
Supplies have been given to family and further stock ordered	Full supplies to last 1 week (2 weeks at holiday times) have been given to parents/carers to ensure they do not run out of equipment before their delivery arrives to the home. All children due for discharge with an NGT should be reviewed by a dietitian and a CCN pre discharge to ensure community supplies of feed and ancillaries have been arranged.

### 14. ARCHIVING ARRANGEMENTS

The original of this policy, will remain with the author. An electronic copy will be maintained on the Trust Intranet Hub. Archived electronic copies will be stored on the Trust's "archived policies" shared drive, and will be held indefinitely.

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# 15. PROCESS FOR MONITORING COMPLIANCE WITH AND EFFECTIVENESS OF THE POLICY

15.1 To evidence compliance with this policy, the following elements will be monitored:

Areas to be monitored	Evidenced by	Where will this be reported and by whom
RNs, ODPs, Unregistered Nurses and Allied staff have been trained, assessed and deemed competent in NG tube insertion, maintenance and displacement recognition and management.	Competency assessment documents, signed off by the ward or department champion are retained by the Matron or Manager for the employee's personal file. The staff member is given a copy for their personal portfolio.  ESR records are updated.  Medical Device Database (MEDICS) updated following PDR annual review.	Annual review of ESR and report to be presented at NNU and Paed atric Governance by Matron
Compliance with this policy will be monitored via quarterly audit.	NG TUBE Care Bundle Quarterly NG TUBE Audit	Undertaken by champions and results monitored via paediatric and neonatal governance groups.

### 16. REFERENCES

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Cottee, S (2002) Jejuna feedi g Complete Nutrition 2(2), p32-34.

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https://www.rch.org.au/rchcpg/hospital clinical quideline index/Jejunal Feeding Guideline/ent, 2018:

National Patient Safety Agency (2005) Reducing the harm caused by misplaced gastric feeding tubes in babies under the care of neonatal units Patient Safety Alert Sept 05. NPSA/2005/9. Reference number 0223.

NHS Improvement Never Events Framework and Policy 2018

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NPSA/2012/RRR001 Alert, Harm from flushing of nasogastric tubes. Patient
Safety Alert. Nasogastric tube misplacement: continuing risk of death and severe
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NHS Improvement (2016). Nasogastric tube misplacement: continuing risk of death and severe harm.

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NICE (2006) Nutrition support in adults – Oral nutrition support, enteral tube feeding and parenteral nutrition. Clinical guideline [CG32].

NNNG (2016) Good Practice Guideline: Safe Insertion and Ongoing Care of Nasogastric (NG) Feeding Tubes in Adults. April 2016. (Due to be reviewed April 2019 but not reviewed as at 13.06.2019) (This replaces the previous Good Practice Guidance Safe Insertion of Nasogastric (NG) Feeding Tubes in Adults - not ongoing care February 2012)

South West Neonatal Network Executive Board (2017): SW Neonatal Network quideline - Parent Education: Tube Feeding Guideline:

South West Neonatal Network Executive Board (2017): South W st Neonatal Network Guideline: Nasogastric Tube Feeding Competency Learning Pack

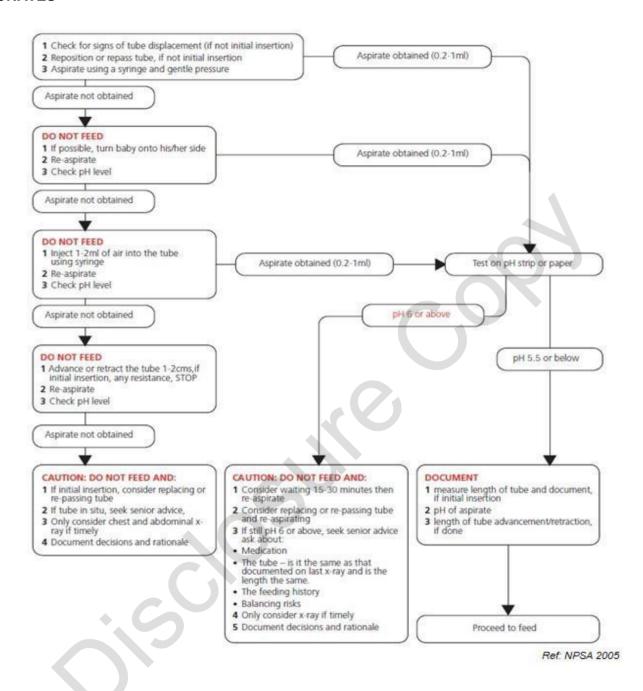
Sizer, T (1986) *In Standards and Guidelines for Nut ition Support of Patients in Hospitals:* BAPEN (no longer for sale or download)

Skills for Health CHS15: Insert & secure nasogastric tubes.

Stroud, M., Duncan, H., Nightingale, J. (2003 Guidelines for enteral feeding in adult hospital patients *Gut 52* (*Suppl VIII*) *vii1-vii2* 

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APPENDIX 1: FLOWCHART FOR THE POSITIONING OF NASOGASTRIC AND OROGASTRIC TUBES IN NEONATES



Reducing the harm caused by misplaced naso and orogastric feeding tubes in babies under the care of neonatal units. Reference number 0223 Central Alert System (CAS) reference NPSA/2005/9. Issue date 18 Sept 2005

Ratified by: Clinical Effectiveness Committee: 6 March 2020

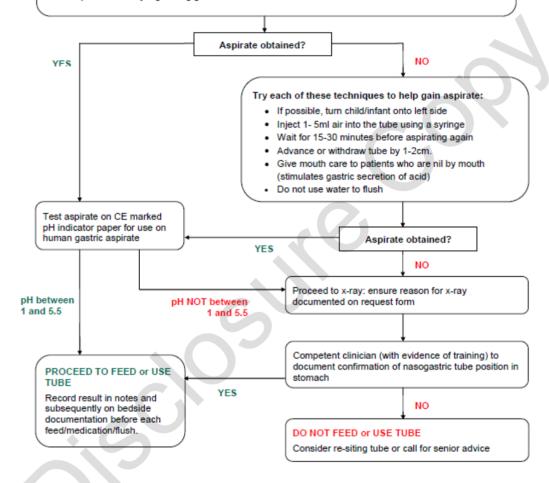
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# APPENDIX 2: DECISION TREE FOR NASOGASTRIC TUBE PLACEMENT CHECKS IN CHILDREN AND INFANTS (NOT NEONATES)



# Decision tree for nasogastric tube placement checks in CHILDREN and INFANTS (NOT NEONATES)

- Estimate NEX measurement (Place exit port of tube at tip of nose. Extend tube to earlobe, and then to xiphisternum)
- · Insert fully radio-opaque nasogastric tube for feeding (follow manufacturer's instructions for insertion)
- · Confirm and document secured NEX measurement
- · Aspirate with a syringe using gentle suction



A pH of between 1 and 5.5 is reliable confirmation that the tube is not in the lung, however it does not confirm gastric placement as there is a small chance the tube tip may sit in the oesophagus where it carries a higher risk of aspiration. If this is any concern, the patient should proceed to x-ray in order to confirm tube position.

Where pH readings fall between 5 and 6 it is recommended that a second competent person checks the reading or retests.

www.npsa.nhs.uk/alerts

Insertion, Confirmation of Position, Maintenance and Removal of Nasogastric, Orogastric, Nasojejunal and Decompression/Drainage Tubes in Paediatrics and Neonates Policy

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# APPENDIX 3: NASOGASTRIC TUBE FEEDING. PARENT-HELD RECORD, INCLUDES COMPETENCIES. DISCHARGING A CHILD HOME WITH A NASOGASTRIC TUBE – HEALTH PROFESSIONAL CHECKLIST

							CH	hildren's Community Nurse name
			Roya	I Devon and NHS Four	d Exeter	NHS		Telephone Number or .03300245321
								Paediatric Dieticians 01392 406063
								Fresenius Kabi Homecare 0808 1001990
	Pare	Nasoga: nt-held reco	stric Tube I	Feeding. s competenci	es.			Ward Telephone Number 01392 402666 (for use outside of community nurse hours)
Dischargir	ng a chile	d home with	a nasogas	stric tube – he	alth profes	sional	- 1	Who is this leaflet for?
Names of pa to be trained	arents/ca d:	rers (includi	ng e.g. gra	ndparents/ oth	er family m	embers)		this booklet is a record of the training parents or carers have received to pass or use a nasogastric tube     it will also be used to make sure all the preparation for discharge has be completed     M.B. If additional carers e.g. grandparents wish to use the NG tube they mulaso be assessed prior to discharge or by the community team at a later da     Parents     you will need to sign each checklist when you have learned a particular ta after you have signed all the checklists, and the nurse looking after your.
_								is confident you are competent in tube care, they will sign off the checklist  you will also need to sign the risk assessment to confirm you are happy for your child to be discharge with a nasogastric tube.
3								your child to be discharge with a hasogastric tube.  Health Care Team –before discharge, the following need to be completed.
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								.(7)
ord of nasog Date of NG insertion	gastric tu NG Make	NG Size (diameter)	NG	External length outside nose	РН	Date to be replaced	pro ho inii ris be (=:	Risk Assessment  then used properly, in accordance with guidelines, NG tube feeding is generall  the guidelines, associated with NG tube feeding  that are important to consider for each child. If the NG tube is misplaced it  tially passed or if it comes partially out so that feed goes into the throat then the  soffeed going into the lung, which would cause pneumonia and, although rar  fatal. This is a particular danger for children who have na "unsafe swallow  aspirate when feeding by mouth) or children who have neurological impairmer
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e of nurse		nber of the nursing tea	m will sign below to agr	ee you a	re ready to
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	Discussed with nursing staff, and seen it done	Practiced with nursing staff present to support		ble to p epende	erform ently
washes hands and					
cleans area					
prepares equipment					
understands the					
importance of					
ensuring the tube is					
in the stomach					
before giving					
ANYTHING down the NG tube					
confirms placement					_
using pH paper					
correctly					
understands how					_
much feed to give.					
and when					
understands how					
much flush to give,					
and when					
can explain reasons					
for giving water					
flushes					_
able to give a water flush down the NG					
tube					
able to give a gravity					_
bolus feed down NG					
tube					
if needed, able to set					
up feeding pump,					
and give pump feed					
able to draw up					
appropriate dose of prescribed					
medicines and give					
via NG tube					
	all the hoves to show	v you feel confident to	perform	each to	ack
		m will sign below to ac			
use an NG at home.	iber of the naroling tea	in thin orgin bolow to ag	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	alo loa	<b>a</b> , 10
Name of		-			
nurse					

Name of Parent/ Carer \_

quipment Checklis	t
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Name of Parent/ Carer

- you will need to go home with at least 7 days supply of all the feed, syringes and pH strips you require. Within the first week after discharge, a home delivery company will deliver your first month's supply of feed and equipment to your home.
- equipment to your nome.

  if your child is going home around Christmas or Easter, you will need to take
  home 14 days supply
- you will need ......days supplies for discharge

ROM PHARMACY    X	
type	
type	
x 60ml purple enteral syringes for feeds/flushesxml purple enteral syringes for	
feeds/flushes	
xml purple enteral syringes for medications	
NG tubes	
pots of pH sticks	
ape for affixing tube to skin	
giving sets	
type) ROM DIETITIANS	
1 pump	
1 stand	
Additional items:	

# Tasks Tasks Patient has had senior review and deemed medically fit for discharge? Record of NG tube insertion and risk assessment for NG tube feeding at home completed, and photocopied for notes Where patient consistently records higher pH readings when tube is correctly placed in stomach, copy of individualised care plan for checking pH position provided, and photocopied for notes and leaflet 3 provided for parents/ carers Medicines reviewed by pharmacy to ensure where possible, in liquid or dispersible versions. Parents shown how to crush medicines only available in tablet form CCN team informed of discharge Jasmine Heslop 01392 408477 Dieticians informed parents/carers about ongoing deliveries of supplies, and registered the patient for home delivery All equipment for discharge collated and given to parents Ensure copies of all Trust approved NGT leaflets 1-5 are provided and discussed with parents/ carers. Check literacy levels of parents/carers if unable to read they will need more support to leam techniques and in the community from the CCN team. Understanding will need to be checked more thoroughly as they will not be able to troubleshoot through use of the Trust NGT leaflets Parent/carer competencies completed and photocopied for notes Parents/carers given community and emergency contact numbers (CCNs, Dieticians, Bramble) Discharge date to be confirmed after ALL of above criteria met Comments: Date of discharge. Parent/Carer Signature. Date. Ward Nurse Signature. Date.

Insertion, Confirmation of Position, Maintenance and Removal of Nasogastric, Orogastric, Nasojejunal and Decompression/Drainage Tubes in Paediatrics and Neonates Policy

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### APPENDIX 4: QUARTERLY SAFETY THERMOMOETER AUDIT (ON HUB)

NGT Placement & Maintenance - Paediatric /Neonatal Care Bundle Compliance Part I & II

We are required to provide assurance that all of our patients receive safe, effective care. Please complete the compliance audit <u>for every patient</u> who has a nasogastric (include orogastric) tube in situ on the

SECOND Tuesday - Quarterly:

Date	Name of ward	Auditor Name			
Enter the n	umber of <u>All</u> patient on the ward on the day of audit				
Part I – Plac	ement Compliance (exclusion – NGT placed in theatre/endosc	opy under direct sup	ervision)		
		Options	1	2	3
1.	Correct Trust documentation:	Enter			
	Neonatal and Bramble ward NG/OG Tube Insertion	Yes/No			
	Record				
2.	Patient ID label on all parts of the Neonatal and	Enter			
	Bramble	Yes/No			
	ward NG/OG Tube Insertion Record				
3.	Insertion signature:	Enter			
	Neonatal and Bramble ward NG/OG Tube Insertion	Yes/No			
	Record				
4.	Patient consent obtained (documented if in best	Enter			
	interests)	Yes/No			
	Neonatal and Bramble ward NG/OG Tube Insertion				
	Record	Fatan			
5.	Size of tube documented:  Neonatal and Bramble ward NG/OG Tube Insertion	Enter			
	Record	Yes/No			
6.	pH documented by 1st RN:	Enter			
٥.	Neonatal and Bramble ward NG/OG Tube Insertion	Yes/No/ No			
	Record	Aspirate			
7.	pH documented by 2nd RN:	Enter			
, · ·	Neonatal and Bramble ward NG/OG Tube Insertion	Yes/N / No			
	Record	Aspi ate			
8.	Length of tube passed documented:	Enter			
0.	Neonatal and Bramble ward NG/OG Tube Insertion	es/No			
	Record				
Part II – Ma	intenance				
1.	Correct Trust documentation:	Enter			
	Neonatal feed/ITU chart or on Care Bundle Pa 2	Yes/No			
2.	Correct date & time per entry:	Enter			
	Neonatal feed/ITU chart or on Care Bundle Part 2	Yes/No			
3.	pH level of aspirate documented before t rt of	Enter			
	feeding or use per entry:	Yes/No			
	Neonatal feed/ITU chart or on C re Bundle art 2				
4.	5. Signature present per ntry:	Enter			
_	NGT Care Bundle: Part 2	Yes/No			
5.	Check care bundle for displa eme t:	Enter			
F -	NGT Care Bundle: Part 2	Yes/No			
5a	Action taken if check are bundle r displacement is	Manual			
	Yes (Enter Yes to those on the tapply)	Reinsertion			
	(Enter Yes to those op  ns that apply)	Check X Ray Requested			
	<b>4 ( 6 )</b>	Check Ph			
		Asperate			
		Risk			
		Assessment			
Documen	compliant	Enter			
		Yes/No			
Signature	of uditor ( int and sign)				
General Co	omments		I	4	
			I		

Insertion, Confirmation of Position, Maintenance and Removal of Nasogastric, Orogastric, Nasojejunal and Decompression/Drainage Tubes in Paediatrics and Neonates Policy

Ratified by: Clinical Effectiveness Committee: 6 March 2020



### **COMMUNICATION PLAN**

The following action plan will be enacted once the document has gone live.

	1 AU	
Staff groups that need to have knowledge of the policy	All staff groups	
The key changes if a revised policy	New child and neonatal policy	
The key objectives	To ensure that all patients re uiring nasogastric/oro-gastric and nas jejunal feeding tubes receive safe and effictive care.  Four guiding principles inform the monitoring and compliance of the National Patient Safety Agency:  • Undertake the Correct insertion of a nasogastric tube Apply recognised methods when confirming the correct position of a nasogastric tube  • Demonstrate effective maintenance and care of the nasogastric tube.  • Recognise and manage displacement risk.	
How new staff will be made awa e of the policy and manager action	Cascade by email from manager, induction process and PDR	
Training available to staff	Competency Assessment, Nominated Clinical Champions in wards and departments. Media Resources for learning; power-point presentation, DVD and reading lists found on HUB.	
Any other requirements	None	
Issues following Equality Impact Assessment (if any)	Nil found	
Location of hard / electronic copy of the document etc.	The original of this policy will remain with the author. An electronic copy will be maintained on the Trust Intranet, HUB. Archived electronic copies will be stored on the Trust's "archived policies" shared drive, and will be held indefinitely.	

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### APPENDIX 6: EQUALITY IMPACT ASSESSMENT TOOL

Name of document	Insertion, Confirmation of Position and Removal of Nasogastric, Orogastric, naso-jejunal tubes and Decompression/Drainage Tubes in Paediatrics and Neonates Policy
Division/Directorate and service area	Paediatrics and Neonates
Name, job title and contact details of person completing	Senior Nurse for Neonates
Date completed:	5 <sup>th</sup> April 2018

### The purpose of this tool is to:

Carers x□

- identify the equality issues related to a policy, procedure or strategy
- summarise the work done during the development of the documen to reduce negative impacts or to maximise benefit
- highlight unresolved issues with the policy/procedure/strategy which cannot be removed but which will be monitored, and set out how this will be done.

### 1. What is the main purpose of this document?

Staff ⊠

To ensure that all patients requiring nasogastric/ ro-gastric feeding tubes receive a safe standard of clinical care.

# Four guiding principles inform the monitoring and compliance of the National Patient Safety Agency:

Undertake the Correct insertion of a nasogastric tube
Apply recognised methods when confirming the correct position of a nasogastric

tube Demonstrate effect ve maintenance and care of the nasogastric tube. Recognise and manage displacement risk

2.	Who does it mainly affect?	(Please insert an "x"	as appropriate:)
	+. 60		

3. Who might the policy have a 'differential' effect on, considering the "protec ed characteristics" below? (By differential we mean, for example that a policy may have a noticeably more positive or negative impact on a particular group e.g. it may be more beneficial for women than for men)

Patients ⊠

Other (please specify)

Protected characteristic	Relevant	Not relevant
Age		
Disability		$\boxtimes$
Sex - including: Transgender, and Pregnancy / Maternity		⊠

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Race	$\boxtimes$
Religion / belief	$\boxtimes$
Sexual orientation – including: Marriage / Civil Partnership	$\boxtimes$

4. Apart from those with protected characteristics, which other groups in society might this document be particularly relevant to... (e.g. those affected by homelessness, bariatric patients, end of life patients, those with carers etc.)?

Do you think the document meets our human rights obligations?

### A quick guide to human rights:

- Fairness how have you made sure it treat everyone justly?
- Respect how have you made sure it respects everyon as a person?
- Equality how does it give everyone an equal ch n e to get whatever it is offering?
- **Dignity** have you made sure it treats everyone with dig ity?
- **Autonomy** Does it enable people to make decisions for themselves?

Looking back at questions 3, 4 and 5, can you summarise what has been done during the production of this document and your consulta ion process to support our equality / human rights / inclusion commitments?

- Policy meets the specific needs of children and neonates.
- Specialist clinical variances ident fied
- Paediatric and neonates nclusi e care requirements Equality and Diversity Lead - consult d
- 5. If you have noted any 'missed opportunities', or perhaps noted that there remains some co-cern about a potentially negative impact please note this

"Protected chara teristic":	
Issue:	
How is this goi g to be monitored/ addressed in the future:	
Group that will be responsible for ensuring this carried out:	

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