Nasogastric and Orogastric Tube Management on NNU and Transitional Care - Clinical Guideline

V1.1

July 2020
Summary
This guideline aims to promote the safe management of the Neonate requiring a naso/orogastric tube and is applicable to all practitioners passing and using a nasogastric or orogastric tube in a neonate.

The following principles should be followed:

- Staff and carers caring for neonates with a naso/orogastric tube in place should have adequate, competency based training for the insertion and assessment of the position of feeding tubes prior to their use, and should be able to initiate resuscitation if required
- The patient and environment should be prepared – see section 2.3
- The equipment should be prepared – see section 2.4
- The feeding tube should be inserted as per section 2.5
- The position of the feeding tube should be confirmed as per section 2.6
- Use flow chart in section 2.7.4. to assist decision making and documentation of findings to reduce harm caused by misplaced tubes
- Be aware of techniques that should never be used when testing naso/orogastric tube position, as per section 2.8.
- Be aware of possible requirement for Gastric decompression as per section 2.9.
- Exclude congenital anomalies as per section 2.10.
- Be aware process to follow when administering medications via a feeding tube as per section 2.11.
- Clear documentation must take place throughout the patient’s feeding care plan or medical records as per section 2.12
- Ensure parents and caregivers are taught the correct safe procedure, as per section 2.13
1. **Aim/Purpose of this Guideline**

1.1. This guideline aims to promote the safe management of the Neonate requiring a naso/orogastric tube. The guidance will incorporate the NHS improvement resource and patient safety alerts for safe placement of naso/orogastric tubes in babies under the care of the Neonatal Unit and Transitional Care.

1.2. This guideline is applicable to all practitioners passing and using a nasogastric or orogastric tube in a neonate.

1.3. This version supersedes any previous versions of this document.

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**Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation**

The Trust has a duty under the DPA18 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed and documented. We cannot rely on opt out, it must be opt in.

DPA18 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the DPA18 please see the [Information Use Framework Policy](rch-tr.infogov@nhs.net) or contact the Information Governance Team.

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2. **The Guidance**

2.1. The placement of a nasogastric or orogastric tube is common practice across neonatal, maternity and child health. It is a useful tool for stomach decompression and medication administration, but is primarily used for the maintenance of growth and development in patients who are unable to achieve adequate intake of fluid and nutrients orally.

However, there is a small risk that the tube can be misplaced into the lungs during insertion, or move out of the stomach at a later stage. Staff and carers caring for neonates with a naso/orogastric tube in place should have adequate, competency based training for the insertion and assessment of the position of feeding tubes prior to their use.

2.2. Staff and all carers must be competent in all aspects of tube management and able to initiate resuscitation if required. The rationale for tube feeding should be documented in the patients care plans/medical record.

However, possible contra-indications should be considered:

- Anatomical deformity
• Trauma
• Recent oral, nasal or oesophageal surgery
• Severe gastro-oesophageal reflux disease (GORD)
• Take into consideration that neonates on anti reflux medication can present with a high pH of 6-7

Possible complications following insertion include:

• Misplacement into the trachea or oesophagus leading to aspiration or pneumonia
• Gastro-oesophageal reflux
• Vasovagal response on passage of tube resulting in apnoea, bradycardia and cyanosis
• Nasal, pharyngeal and oesophageal trauma
• Trauma to skin underlying tube fixation device
• Malposition following coughing or retching during a feed
• Tube embedded in the gastric wall

2.3. **Preparation of patient and environment**

2.3.1. Explain the procedure to the family/carer with adequate information, seeking consent from carer as appropriate.

2.3.2. Ensure adequate light.

2.3.3. Ensure clean surface for equipment.

2.4. **Preparation of equipment**

2.4.1. Select the most appropriate sized tube (4Fg – 8Fg), that is sterile, radio-opaque, phthalate free, have graduated markings and oral syringe compatible **ONLY**.

2.4.2. pH indicator paper.

2.4.3. Skin protection suitable for patient e.g. Comfeel, Duoderm, Cavalon.

2.4.4. Tape to secure in place.

2.4.5. Oral/enteral syringe to aspirate – minimum of 10ml syringe (generates 20 PSI). [N.B. 1ml generates 150 PSI, 3ml generates 120 PSI, 5ml generates 90 PSI].

2.4.6. Appropriate personal protective equipment (PPE) relevant to patient’s condition e.g. gloves/apron.

2.4.7. Disposal bag.
2.5. Insertion of the nasogastric or orogastric tube

2.5.1. Identify the patient as per the RCHT policy for patient identification.

2.5.2. Identify appropriate route, e.g. consider orogastric if there is respiratory distress or nasal anomalies; nasogastric if no respiratory compromise.

2.5.3. Ensure appropriate timing to pass the tube; i.e. be aware of the risk of vomiting.

2.5.4. Find the most appropriate position for the neonate.

2.5.5. Wash and dry hands in accordance with RCHT policy and put on PPE.

2.5.6. Check the tube is intact and measure the required length of the tube; for preterm infants and neonates (<28 days old) measure from the nose to the ear and then to the midway point between the xiphisternum and umbilicus (Wallace and Steward 2014).

2.5.7. Apply skin protection to the nose, cheek or chin if used and prepare securing tape.

2.5.8. Gently pass the tube into the nostril and aiming down and back, advancing along the nasopharynx to the oropharynx (or along the oropharynx if inserting in the mouth) to the measured length and hold into position. Use comfort measure to assist in the passage of the tube if necessary. If the patient exhibits signs of distress, or malposition then remove the tube and restart the procedure.

2.5.9. Test the position of the tube as per the NPSA algorithm (2011) with enteral syringe.

2.5.10. Once correct position has been confirmed, secure the tube.

2.5.11. Comfort and settle the baby as required.

2.5.12. Dispose of waste as per RCHT policy.

2.5.13. Wash and dry hands as per RCHT policy.

2.6. Confirming the position of a naso/orogastric tube

2.6.1. The position of all tubes should be checked:

- Following initial insertion
- Before administering each feed
- Before giving medication
- At least once daily during continuous feeds
- Following episodes of vomiting, retching or coughing
- Following evidence of tube displacement e.g. loose tape or visible tube appears longer
2.6.2. If the patient is receiving continuous feeds, tube checking should be synchronised with feed changes. When continuous feeds have stopped, wait 15-30 minutes to allow the stomach to empty and the pH level to fall.

2.6.3. pH testing using a CE marked pH indicator paper fit for use on human gastric aspirate is the first line method for checking tube position.

- Aspirate a **small amount** of stomach contents using a 10ml syringe.
- Test the aspirate on the pH indicator paper.
- For all gastric tubes the **safe pH range is between 1 – 5.5**.

### 2.7. General Guidance

2.7.1. There are many factors in the neonatal patient that can have an effect on the results of pH paper testing, including:

- Gestation
- Postnatal age
- Small volumes of aspirate
- Medications that affect the gastric pH
- Continuous and frequent feeding
- The use of fine bore tubes when gaining aspirate
- Take into consideration that neonates on anti reflux medication can present with a high pH of 6-7

2.7.2. The most accurate method for tube confirmation is by x-ray, however the sole purpose of an x-ray for confirming tube position is not recommended in a neonate. If possible, a baby that is going to have an x-ray as part of their care management should have a tube inserted beforehand. Tube position can then be checked at the same time as the x-ray.

2.7.3. Even though aspirates of pH 5.5 and below should indicate correct placement in most babies, including those receiving acid suppressants, some babies will have pH values of 6.0 and above consistently. Risk assessment should be performed to consider factors that may contribute to a high gastric aspirate, including:

- The presence of amniotic fluid in a baby that is <48 hours old
- Milk in the baby’s stomach, particularly if they are on one to two hourly feeds
- Use of medication to reduce stomach acid production
- Take into consideration that neonates on anti reflux medication can present with a high pH of 6-7
2.7.4. The flowchart below can assist in decision-making and the documentation of findings. This can then be discussed with the multi-disciplinary team to decide the appropriate course of action.

**Reducing harm caused by misplaced gastric feeding tubes in babies on the Neonatal Unit and Transitional Care**

1. Check for signs of tube displacement (if not initial insertion)
2. Reposition or repass tube, if not initial insertion
3. Aspirate using a syringe and gentle pressure

**Aspirate not obtained**

**DO NOT FEED**
1. If possible, turn baby onto his/her side
2. Re-aspirate
3. Check pH level

**Aspirate not obtained**

**DO NOT FEED**
1. Inject 1-2ml of air into the tube using syringe
2. Re-aspirate
3. Check pH level

**Aspirate not obtained**

**DO NOT FEED**
1. Advance or retract the tube 1-2cms, if initial insertion, any resistance, STOP
2. Re-aspirate
3. Check pH level

**Aspirate not obtained**

**CAUTION: DO NOT FEED AND:**
1. If initial insertion, consider replacing or repassing tube
2. If tube in situ, seek senior advice
3. Only consider chest and abdominal x-ray if timely
4. Document decisions and rationale

**Aspirate obtained (0.2-1ml)**

**Test on pH strip**

**pH 6 or above**

1. Consider waiting 15-30 minutes than re-aspirate
2. Consider replacing or re-passing tube and re-aspirating
3. If still pH 6 or above, seek senior advice ask about:
   - Medication
   - The tube – is it still the same as that documented on last x-ray and is the length the same
   - The feeding history
   - Balancing risks
4. Only consider x-ray if timely
5. Document decisions and rationale

**pH 5.5 or below**

**DO NOT FEED AND:**
1. Consider waiting 15-30 minutes than re-aspirate
2. Only consider chest and abdominal x-ray if timely
3. Document decisions and rationale

**DOCUMENT**
1. Measure length of tube and document, if initial insertion
2. pH of aspirate
3. Length of tube advancement/retraction, if done

**Proceed to feed**
2.8. Techniques that should NEVER be used when testing naso/orogastric tube position

Introducing fluids or medication into the respiratory tract or pleura via a misplaced nasogastric or orogastric tube is NEVER EVENT. The following methods MUST NOT be used to check position of a gastric tube:

- Auscultation of air insufflated through the feeding tube – ‘Whoosh’ test
- Testing the acidity/alkalinity of aspirate using blue litmus paper
- Interpreting absence of respiratory distress as an indicator of correct positioning
- Monitoring bubbling at the end of the tube
- Observing the appearance of the feeding tube aspirate
- Injecting fluid into the tube – if you suspect a tube is blocked, remove immediately and insert a new tube

2.9. Gastric decompression (emptying of stomach and gastric contents)

2.9.1. Follow guideline of care of neonate requiring a naso/orogastric tube. Gastric decompression may be required for the baby who is:

- Nil by mouth and receiving Humidified High Flow Nasal Cannula Oxygen, CPAP or mechanical ventilation
- Receiving resuscitation
- Nil by mouth pending investigation of gastro-intestinal problems;
- Nil by mouth prior to, during and after surgery
- To determine absorption of feed

2.9.2. To facilitate gastric decompression, insert the largest possible gastric tube (particularly if there is a bilious aspirate/surgical concerns), place on free drainage using a closed bag with drainage facility. Intermittently aspirate the tube with a minimum 10ml syringe. Frequency of aspiration is dependent upon the condition of the baby and the volume of gastric aspirate.

2.10. Exclusion of congenital anomalies

2.10.1. The inability to pass a nasogastric tube beyond the nares is indicative of choanal atresia and is a medical emergency

2.10.2. Resistance to passage of a naso/orogastric tube beyond the oropharynx is indicative of oesophageal atresia

2.10.3. A gastric tube should be inserted prior to chest or abdominal x-ray to facilitate differential diagnosis.
2.11. Administering Medications via a feeding tube

2.11.1. Wash and dry hands as per the RCHT policy and wear appropriate PPE
2.11.2. The position of the feeding tube should be confirmed immediately prior to administering medication
2.11.3. Use oral syringes that are designed for use with a gastric tube, use a drawing up device to ensure accuracy e.g. medicine straw
2.11.4. Use liquid or soluble preparations where possible, if unavailable please consult with the pharmacist if required to give via a gastric tube
2.11.5. Ensure compatibility if administering more than one medication
2.11.6. Medications can be given at the same time as milk feeds by either administering directly into the feed or stopping the feed midway, injecting the medication into the tube and then continuing the feed. It is advisable to administer Gaviscon in this way to avoid thickening of the feed in the tube and causing a blockage.

2.12. Documentation

Clear documentation must take place throughout in the patient’s feeding care plan or medical records, including:

- Rationale for placement of gastric tube e.g. feeding or medications
- Date, time and route including left or right nostril
- Size and length of gastric tube
- pH, volume and description of aspirate including whether discarded or replaced
- Tolerance of procedure and any corrective measures required
- Initiate relevant NG/OG paperwork
- Any attempt in which there was a failure to yield an aspirate and any interventions performed in order to achieve aspirate
- Confirmation of position on x-ray (if performed)
- Date and time of removal and reason for this.

2.13. Parental/Caregiver Education

Within the Neonatal Unit and Transitional Care, parents and caregivers are given the opportunity to tube feed their baby. It is one aspect of care that can empower them to have more of a parental role, enabling them to bond and build a closer relationship with their baby(s). We can support parents by ensuring they are taught the correct safe procedure.

Please refer to the South West Neonatal Network Guideline/Policy; Parent Education: Tube Feeding Guideline when supporting families to tube feed:

http://swneonatalnetwork.co.uk/media/106743/swnn-guideline-tube-feeding.pdf
2.13.1. In the event that it is no longer appropriate for parent / care givers to give tube feeds this will be escalated to the Infant Feeding Lead and sensitively managed and documented.

2.13.2. Please see appendix 3 for parental tube competency pack and appendix 4 for the Nasogastric tube feeding leaflet.

3. **Monitoring compliance and effectiveness**

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>Compliance with policy/Key changes to practice</th>
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<tbody>
<tr>
<td>Lead</td>
<td>NNU guidelines lead</td>
</tr>
<tr>
<td>Tool</td>
<td>Audit and review tool using a WORD or Excel template</td>
</tr>
<tr>
<td>Frequency</td>
<td>As dictated by audit findings</td>
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<tr>
<td>Reporting arrangements</td>
<td>consultant led neonatal clinical guidelines group</td>
</tr>
<tr>
<td>Acting on recommendations and Lead(s)</td>
<td>NNU guidelines lead</td>
</tr>
<tr>
<td>Change in practice and lessons to be shared</td>
<td>Required changes to practice will be identified and actioned within 3 months, immediately if required. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant staff/stakeholders</td>
</tr>
</tbody>
</table>

4. **Equality and Diversity**

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Inclusion & Human Rights Policy' or the Equality and Diversity website.

4.2. **Equality Impact Assessment**

The Initial Equality Impact Assessment Screening Form is at Appendix 2.
## Appendix 1. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Nasogastric and Orogastric tube management on NNU and Transitional Care-Clinical Guideline V1.1</th>
</tr>
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<tbody>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>Nasogastric and Orogastric tube management on NNU and Transitional Care-Clinical Guideline V1.0</td>
</tr>
<tr>
<td>Date Issued/Approved:</td>
<td>15&lt;sup&gt;th&lt;/sup&gt; June 2020</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>July 2020</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>September 2022</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Laura Warnock, Senior Staff Nurse &amp; Helen Greenhill, Matron Neonatal Unit</td>
</tr>
<tr>
<td>Contact details:</td>
<td>01872 252667</td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>Guideline for use of nasogastric /orogastric tubes in neonates.</td>
</tr>
<tr>
<td>Suggested Keywords:</td>
<td>Nasogastric Neonates Tube feeding</td>
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<td>Target Audience</td>
<td>RCHT ✔ CFT KCCG</td>
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<td>Executive Director responsible for Policy:</td>
<td>Medical Director</td>
</tr>
<tr>
<td>Approval route for consultation and ratification:</td>
<td>Consultant Led guidelines group</td>
</tr>
<tr>
<td>General Manager confirming approval processes</td>
<td>Mary Baulch</td>
</tr>
<tr>
<td>Name of Governance Lead confirming approval by specialty and care group management meetings</td>
<td>Caroline Amukusana</td>
</tr>
<tr>
<td>Links to key external standards</td>
<td>None</td>
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Training Need Identified?  | No
---|---
**Publication Location (refer to Policy on Policies – Approvals and Ratification):**  | Internet & Intranet ✓ Intranet Only
**Document Library Folder/Sub Folder**  | Clinical/ Neonatal

**Version Control Table**

<table>
<thead>
<tr>
<th>Date</th>
<th>Version No</th>
<th>Summary of Changes</th>
<th>Changes Made by (Name and Job Title)</th>
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<tr>
<td>April 2019</td>
<td>V1.0</td>
<td>New document for neonatal specialty which, along with a new paediatric document, replaces the previous joint guideline</td>
<td>Laura Warnock, Senior Staff Nurse Neonatal Unit</td>
</tr>
<tr>
<td>June 2020</td>
<td>V1.1</td>
<td>Review and amendments from the Infant Feeding Team  Update to new Trust format</td>
<td>Helen Greenhill, Matron Neonatal Unit Infant Feeding Team</td>
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**All or part of this document can be released under the Freedom of Information Act 2000**

**This document is to be retained for 10 years from the date of expiry.**

**This document is only valid on the day of printing**

**Controlled Document**

This document has been created following the Royal Cornwall Hospitals NHS Trust Policy for the Development and Management of Knowledge, Procedural and Web Documents (The Policy on Policies). It should not be altered in any way without the express permission of the author or their Line Manager.
### Appendix 2. Initial Equality Impact Assessment

<table>
<thead>
<tr>
<th>Section 1: Equality Impact Assessment Form</th>
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<tbody>
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<td><strong>Name of the strategy / policy / proposal / service function to be assessed</strong></td>
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<tr>
<td>Nasogastric and Orogastric Tube Management on NNU and Transitional Care - Clinical Guideline V1.1</td>
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<tr>
<td><strong>Directorate and service area:</strong></td>
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<tr>
<td>Child Health, Neonatal</td>
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<tr>
<td><strong>Is this a new or existing Policy?</strong></td>
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<tr>
<td>Existing</td>
</tr>
<tr>
<td><strong>Name of individual/group completing EIA</strong></td>
</tr>
<tr>
<td>Neonatal Guidelines group</td>
</tr>
<tr>
<td><strong>Contact details:</strong></td>
</tr>
<tr>
<td>01872 252667</td>
</tr>
<tr>
<td><strong>1. Policy Aim</strong></td>
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<td>Who is the strategy / policy / proposal / service function aimed at?</td>
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<tr>
<td>To provide clear care guidelines for patients requiring NG/NO tube</td>
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<td><strong>2. Policy Objectives</strong></td>
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<td></td>
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<tr>
<td>Evidence based/best practice.</td>
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<td><strong>3. Policy Intended Outcomes</strong></td>
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<tr>
<td>As above</td>
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<tr>
<td><strong>4. How will you measure the outcome?</strong></td>
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<tr>
<td>See section 3</td>
</tr>
<tr>
<td><strong>5. Who is intended to benefit from the policy?</strong></td>
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<td>Patients requiring this procedure and staff involved in implementing care.</td>
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<tr>
<td><strong>6a). Who did you consult with?</strong></td>
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<tr>
<td>Workforce</td>
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<td>x</td>
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<td><strong>b). Please list any groups who have been consulted about this procedure.</strong></td>
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<td><strong>Please record specific names of groups:</strong></td>
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<tr>
<td>Consultant Led guidelines group</td>
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<td><strong>c). What was the outcome of the consultation?</strong></td>
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<td>Document approved</td>
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7. The Impact
Please complete the following table. If you are unsure/don’t know if there is a negative impact you need to repeat the consultation step.

Are there concerns that the policy could have a positive/negative impact on:

<table>
<thead>
<tr>
<th>Protected Characteristic</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Rationale for Assessment / Existing Evidence</th>
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<tbody>
<tr>
<td>Age</td>
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<td></td>
</tr>
<tr>
<td>Sex (male, female non-binary, asexual etc.)</td>
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<td>X</td>
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<td>Gender reassignment</td>
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<tr>
<td>Race/ethnic communities /groups</td>
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<td>X</td>
<td></td>
<td>Any information provided should be in an accessible format for the parent/carer needs – i.e. available in different languages if required/access to an interpreter if required</td>
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<tr>
<td>Disability (learning disability, physical disability, sensory impairment, mental health problems and some long term health conditions)</td>
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<td>X</td>
<td></td>
<td>Those parent/carers with any identified additional needs will be referred for additional support as appropriate - i.e. to the Liaison team or for specialised equipment. Written information will be provided in a format to meet the family's needs e.g. easy read, audio etc</td>
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<td>Religion/other beliefs</td>
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<td>Marriage and civil partnership</td>
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<td>Pregnancy and maternity</td>
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</table>

If all characteristics are ticked ‘no’, and this is not a major working or service change, you can end the assessment here as long as you have a robust rationale in place.

I am confident that section 2 of this EIA does not need completing as there are no highlighted risks of negative impact occurring because of this policy.

Name of person confirming result of initial impact assessment: Neonatal Guidelines group

If you have ticked ‘yes’ to any characteristic above OR this is a major working or service change, you will need to complete section 2 of the EIA form available here: Section 2. Full Equality Analysis

For guidance please refer to the Equality Impact Assessments Policy (available from the document library) or contact the Human Rights, Equality and Inclusion Lead debby.lewis@nhs.net
Appendix 3. Parental tube competency pack
Before you start

1. Make sure your baby is settled in their cot or in skin-to-skin cuddles. Some parents like to take turns to cuddle their baby while the other parent tube feeds.

2. To promote an association between a full tummy and sucking, using a pacifier during a tube feed may be suggested for some infants - particularly if they look hungry.

3. Wash your hands.

4. Clean a work surface - usually the incubator tray or cot side is easiest.

5. Gather your equipment:
   - Appropriate size of syringe to administer the feed eg. 5, 10 or 20ml syringe.
   - 16ml syringe to assess the position of the NG tube.
   - pH testing strip.

6. Make sure you know how much milk you need before you start. For smaller amounts of milk, it might be easier to draw up the milk into a syringe before you begin. You’ll need to label with your baby’s name stickers if you’re using a new container.

7. Warm your labelled milk using the milk warmer. Ask your Neonatal nurse to show you how to do this if you haven’t been shown.

8. Once warm, check the milk is your baby’s and take to your baby’s cot side.

<table>
<thead>
<tr>
<th>Parent’s name:</th>
<th>Staff signature and date</th>
<th>Parent’s name:</th>
<th>Staff signature and date</th>
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<tbody>
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<td>Demonstrated</td>
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<tr>
<td>Observed</td>
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<tr>
<td>Competent</td>
<td>Competent</td>
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</tbody>
</table>
Checking the tube position

1. Open the cap on the end of your baby’s NG tube.
2. Attach the 10ml syringe to the open end of the NG tube using a clockwise twist.
3. Gently pull back on the plunger of the 10ml syringe until you obtain a small sample of milk (aspirate) in the syringe.
4. Remove the syringe from the NG tube, using an anti-clockwise twist.
5. Replace the cap of the NG tube.
6. Gently press the plunger of the 10ml syringe until a small amount of aspirate is visible at the end of the syringe.
7. Drop the aspirate onto the green middle box between ‘6’ and ‘7’ on the pH strip.

The pH strip

This strip indicates the acidity of the aspirate.

An acid reaction will change the strip to the colours 1 to 5 on the pH strip. This means that the aspirate has been in the stomach.

If the aspirate changes the central box to colours ‘5’ to ‘12’, fetch the nurse looking after your family IMMEDIATELY. DO NOT CONTINUE WITH THE NG TUBE FEED.

A non-acidic reaction might mean that the NG tube is no longer in the stomach and could be in your baby’s lungs.

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Dinner!

1. Remove the plunger from the syringe that you plan to use to give the feed.
2. Attach the empty syringe to the NG tube.
3. Pour the appropriate amount of milk into the syringe.
4. Once the required amount of milk has been given, remove the syringe from the NG tube.
5. Replace the cap onto the end of the NG tube.

NG feeds are gravity fed. The higher the syringe is held, the faster the milk will flow. It is much nicer for your baby to be able to see your face when you are feeding them - it helps to build your relationship and also allows you to check they are coping with the feed.

Throughout the feed, watch your baby to make sure they remain settled, show no signs of distress and the NG tube stays in the same position.

If your baby starts to splutter, cough, lose consciousness, change colour or appears to be struggling to breathe:

1. Call for HELP immediately.
2. Kink the end of the tube with your thumb.
3. Gently replace the plunger into the neck of the syringe.
4. Reverse the syringe so that the milk is away from the NG tube.
5. Disconnect the syringe from the NG tube.

If your baby appears to be uncomfortable, you can slow the feed by reducing the height of the tube or by kinking the tube with your thumb to pause the feed.

It may not always be necessary to stop and disconnect the tube. However, until you are happy with how to stop a feed, it’s useful to practice.

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Checklist

Baby’s name:

GP details:

Consultant:

I’m willing to take responsibility for the nasogastric tube feeding of my baby. I’ve learnt how and why the following should be done:
1. Wash my hands correctly.
2. Sterilise all equipment needed.
3. Set up an area for preparing feeds.
4. Handle the equipment confidently.
5. Decide the right amount of milk to be given.
6. Check the correct position of the Nasogastric (NG) tube.
7. Recognise when the NG tube has not been inserted properly and take appropriate action.
8. Give a NG feed.

Parent/Carer Signature(s):

Print name(s):

Date:

Signature of Nurse:

Print name:

Date:
Appendix 4  Nasogastric tube feeding leaflet.
if you’re reading this information it probably means that your baby
needs a Nasogastric (NG) tube to support them with feeding. It also
means that you’ve either expressed an interest in tube feeding or the
neonatal team feel that it may be beneficial for you to learn how to
tube feed your baby.

This leaflet will support you in learning how to tube feed your baby.
The staff on the Neonatal unit will teach you the techniques and show
you how to do it in practice. They will then sign you off in this booklet.
Keep it with your baby on the Neonatal unit.

If at any time you decide that this is something you would rather
not do, that’s absolutely fine. However, if you do decide you would like
to learn how to tube feed your baby, you’ll be fully supported and
won’t be expected to undertake the procedure until you feel confident
and competent.
Before you start

1. Make sure your baby is settled in their cot or in skin-to-skin cuddles. Some parents like to take turns to cuddle their baby while the other parent tube feeds.

2. To promote an association between a full tummy and sucking, using a pacifier during a tube feed may be suggested for some infants - particularly if they look hungry.

3. Wash your hands.

4. Clean a work surface - usually the incubator tray or cot side is easiest.

5. Gather your equipment:
   - Appropriate size of syringe to administer the feed eg. 5, 10 or 20ml syringe.
   - 10ml syringe to assess the position of the NG tube.
   - pH testing strip.

6. Make sure you know how much milk you need before you start. For smaller amounts of milk, it might be easier to draw up the milk into a syringe before you begin. You’ll need to label with your baby’s name stickers if you’re using a new container.

7. Warm your labelled milk using the milk warmer. Ask your Neonatal nurse to show you how to do this if you haven’t been shown.

8. Once warm, check the milk is your baby’s and take to your baby’s cot side.
Checking the tube position

1. Open the cap on the end of your baby's NG tube.
2. Attach the 10ml syringe to the open end of the NG tube using a clockwise twist.
3. Gently pull back on the plunger of the 10ml syringe until you obtain a small sample of milk (aspirate) in the syringe.
4. Remove the syringe from the NG tube, using an anti-clockwise twist.
5. Replace the cap of the NG tube.
6. Gently press the plunger of the 10ml syringe until a small amount of aspirate is visible at the end of the syringe.
7. Drop the aspirate onto the green middle box between '6' and '7' on the pH strip.

The pH strip

This strip indicates the acidity of the aspirate. An acid reaction will change the strip to the colours 1 to 5 on the pH strip. This means that the aspirate has been in the stomach.

If the aspirate changes the central box to colours '6' to '12', fetch the nurse looking after your family IMMEDIATELY. DO NOT CONTINUE WITH THE NG TUBE FEED.

A non-acidic reaction might mean that the NG tube is no longer in the stomach and could be in your baby's lungs.
**Dinner!**

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4. Once the required amount of milk has been given, remove the syringe from the NG tube.
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NG feeds are gravity fed. The higher the syringe is held, the faster the milk will flow. It is much nicer for your baby to be able to see your face when you are feeding them - it helps to build your relationship and also allows you to check they are coping with the feed.

Throughout the feed, watch your baby to make sure they remain settled, show no signs of distress and the NG tube stays in the same position.

If your baby starts to splutter, cough, lose consciousness, change colour or appears to be struggling to breathe:

1. **Call for HELP immediately.**
2. Kink the end of the tube with your thumb.
3. Gently replace the plunger into the neck of the syringe.
4. Reverse the syringe so that the milk is away from the NG tube.
5. Disconnect the syringe from the NG tube.

If your baby appears to be uncomfortable, you can slow the feed by reducing the height of the tube or by kinking the tube with your thumb to pause the feed.

It may not always be necessary to stop and disconnect the tube. However, until you are happy with how to stop a feed, it’s useful to practice.
This an example of the checklist form you will be asked to complete before you feed your baby on your own. If at any point you feel you do not wish to continue either learning how to give or giving Nasogastric tube feeds just let the nurse know.

Baby’s name:

GP details:

Consultant:

I’m willing to take responsibility for the nasogastric tube feeding of my baby. I’ve learnt how and why the following should be done:
1. Wash my hands correctly.
2. Sterilise all equipment needed.
3. Set up an area for preparing feeds.
4. Handle the equipment confidently.
5. Decide the right amount of milk to be given.
6. Check the correct position of the Nasogastric (NG) tube.
7. Recognise when the NG tube has not been inserted properly and take appropriate action.
8. Give a NG food.

Parent/Carer Signature(s):

Print name(s):

Date:

Signature of Nurse:

Print name:

Date: