

Guideline for the insertion of orogastric tubes on the UHL neonatal units

1. Introduction and Who Guideline applies to

This guideline is aimed at all Health care professionals involved in the care of infants within the Neonatal Service.

Key Points

- This guideline gives directives for the safe and effective placement of an orogastric tube in infants being cared for within the neonatal unit.
- Effective respiratory management is facilitated by use of an orogastric tube in preterm infants who weigh less than 2 kilograms^{1 (Grade B)}
- All neonates who are not on CPAP are to continue to have nasogastric tubes unless otherwise indicated.
- Movement of the orogastric tube over the infants tongue may cause vagal stimulation prompting an increasing incidence of apnoea and bradycardia^{2 (Grade B)}
- Accurate documentation is essential for the safe continuing care of infants with an orogastric tube.
- **The position of the tube must not to be confirmed by auscultation.**
- **All staff need to complete neonatal oro/naso gastric insertion competency**

Evidence Criteria

Evidence according to RCPCH

Grade A	At least 1 randomised controlled trial addressing specific recommendation
Grade B	Well conducted clinical trials but no randomised trial on specific topic
Grade C	Expert committee report or opinions

Aim & Related documents

This policy aims to support staff in the ongoing management of orogastric tubes within the neonatal unit in line with UHL policy for insertion and post insertion management of a nasogastric tube in adults, children and neonates.

For Children's Hospital management refer to; [Nasogastric and Orogastric Tube Insertion in Children and Neonates UHL Childrens Hospital Policy B54/2017](#)

For Adult management refer to; [Nasogastric and Orogastric Tubes in Adults UHL Policy B39/2005](#)

2. Guideline Standards and Procedures

Background

Infants are primarily nasal breathers and feeding tubes placed down the nasal route can cause partial nasal occlusion, increased work of breathing, increased pulmonary resistance and increased incidence of apnoea or periodic breathing.¹ Nasal resistance accounts for ≈40% of total airway resistance in neonates³ (Grade C).

2.1 Indications for Orogastric Tubes

- Neonates weighing <2kg and receiving nasal or mask CPAP
- Choanal atresia

2.2 Process / Procedure

- It is the responsibility of all staff involved in the insertion and post insertion care of orogastric tubes to ensure they are competent to do so.
- It is the responsibility for all staff and carers involved in the insertion and post insertion care of orogastric tubes to update their practice to maintain competence and skills.
- Assemble equipment:
 - Tray
 - Gloves / apron
 - Enteral tube of the appropriate size
 - Fixing tape e.g. Tegaderm
 - pH paper & correct pH gauge
 - 5ml enteral syringe
 - Ensure emergency equipment is available and functional
- If possible use a second person to assist with holding and placating the infant.
- Wrap the infant gently, but securely
- Follow infection prevention procedure
- To ascertain the correct length
 - Measure from centre of lips to earlobe to midpoint from xiphisternum and umbilicus⁴ (Grade c)
 - Note length
- Insert the tube over the centre of the infant's tongue, sliding backwards and inwards along the surface of the tongue to the oropharynx⁴
 - If any obstruction is felt withdraw slightly and try again from a different direction
- Advance the tube gently through the pharynx
- If the infant shows any signs of distress e.g. gasping, coughing or cyanosis remove the tube immediately
- Check the position of the tube to confirm that it is in the stomach by aspiration, using a 5ml enteral syringe
- Check the aspirate with pH paper for an acidic reaction of 5 or below⁵ (Grade C)
- If it is not possible to obtain aspirate try the following
 - Check that the tube is not coiled in the back of the mouth
 - Check that the tube is at the correct measurement

- Turn the neonate onto their left side and retry aspiration
- Alter the position of the tube by advancing or withdrawing very slightly and re-aspirate
- If aspirate is still not obtained or the pH is 6 or above seek experienced advice
- In rare cases if position of the tube not confirmed by aspirate to request for Xray to confirm the position.

[The position of the tube must not be confirmed by auscultation⁵](#)

- Secure the tube centrally with tegaderm or an appropriate fixation device
- Document date and time of insertion, length and pH at insertion in notes and on daily management charts

3. Audit standards

1. Length of tube and pH at insertion will be noted on the daily management charts (100%)
2. Babies on CPAP who weigh < 2kg will have an orogastric tube in place (80%)

4. Education and Training

It is the responsibility of all staff involved in the insertion and post insertion care of orogastric tubes to ensure they are competent to do so.

It is the responsibility for all staff and carers involved in the insertion and post insertion care of orogastric tubes to update their practice to maintain competence and skills.

5. Supporting References

1. Greenspan JS, Wolfson Mr, Holt WJ, Shaffer TH. Neonatal gastric intubation: differential respiratory effects between nasogastric and orogastric tubes. Paediatric Pulmonology 1990 Vol.8 (4) p254 – 288
2. Hawes J, McEwan P, McGuire W. Nasal versus oral route for placing feeding tubes in preterm or low birth weight infants. Cochrane Database of Systematic Reviews 2004(3):CD003952
3. Cooke R, Embleton N. Feeding issues in preterm infants. Archives of Disease in Childhood Fetal and Neonatal Edition 2000 (83) pp F214-8
4. Tedeschi L, Altimier L, Warner B. Improving the accuracy of indwelling gastric feeding tube placement in the neonatal population. Neonatal Intensive Care 2004 16(1):16-8
5. National Patient Safety Agency (NPSA) How to confirm the correct position of nasogastric feeding tubes in infants, children and adults 2005 <http://www.npsa.nhs.uk/health/display?contentId=3525>
6. **National Patient Safety Agency (NPSA) 2019** Nasogastric tube misplacement: continuing risk of death and severe harm. 22 July 2016 updated December 2019 [HTTPS://WWW.ENGLAND.NHS.UK/PUBLICATION/PATIENT-SAFETY-ALERT-NASOGASTRIC-TUBE-MISPLACEMENT-CONTINUING-RISK-OF-DEATH-AND-SEVERE-HARM/](https://www.england.nhs.uk/publication/patient-safety-alert-nasogastric-tube-misplacement-continuing-risk-of-death-and-severe-harm/)

6. Key Words

Aspirate, Gastric, Nasogastric, pH

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.

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

CONTACT AND REVIEW DETAILS			
Guideline Lead (Name and Title) Sumit Mittal – Consultant & guideline lead		Executive Lead Chief Nurse	
Details of Changes made during review:			
Date	Issue Number	Reviewed By	Description Of Changes (If Any)
Feb 2001	1		Original guideline
July 2011	2	Neonatal Guidelines Group	
Oct 2015	3	Marie Hoy (Unit Manager)/ Alison Nield (Matron) Neonatal Guidelines Group Neonatal Governance Group	
August 2018	4	Nicola Owen (Deputy Sister) Neonatal Guidelines and Governance Meetings	
Oct 2021	5	Neonatal Guidelines and Governance Meetings	Added action to request Xray for position confirmation if unable to confirm by aspirate Added related documents Format update