Nasogastric insertion and care guidelines for nurses and nursery nurses in neonates

NHS Lothian

Title: Nasogastric Insertion and Management Guidelines for Registered Nurses and Band 4 Nursery Nurses working within NHS Lothian Neonatal Service			
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Contents

1.0 Purpose

This document sets out to provide guidance on the skill of nasogastric insertion and care of a neonate requiring a nasogastric tube. The aim is that by following these guidelines this will promote confidence in nasogastric care to neonates, to enable the provision of safe and effective care.

2.0 Scope

These guidelines apply to Registered Nurses and Band 4 Nursery Nurses/Assistant Practitioners within the neonatal service

3.0 Definition

Nasogastric tubes are a thin flexible tube that is inserted either through the nose or mouth into the stomach to support the delivery of enteral nutrition and medication to neonatal patients, who have difficulty swallowing or feeding due to either prematurity or due to anatomical structure problems.

4.0 Roles and Responsibilities

The **Executive Nurse Director** is responsible for setting the organisational direction within NHS Lothian and is accountable for ensuring that there are adequate policies and procedures in place to support educational governance and standardisation of competency, as reflected in workforce development, nursing strategy and clinical service delivery.

Associate Nurse Directors/Chief Nurses working with their Clinical Managers are responsible for supporting the implementation of the policies and procedures within their clinical areas and ensuring clinical areas understand and work to the role boundaries and scope of practice for Registered Health Care Professionals and Band 4 Nursery Nurses/Assistant Practitioners.

Charge Nurses, Midwives, and Clinical Managers are responsible for supporting staff in maintaining confidence and competence in skills essential in their clinical area.

Registered Nurses are responsible for attending appropriate education and maintaining competency initially, and thereafter on a 2 yearly basis, ensuring their practice is appropriate, safe and in the best interests of the patient. Ensuring that the care they provide is in line with policies and procedures. Ensuring they can demonstrate competency in the insertion of a nasogastric tube and placement by pH testing, administering prescribed feed and water flushes as per the Dietitian's regimen and as per this guideline's instructions

Band 4 Nursery Nurses/Assistant Practitioners are responsible for working within their agreed scope of practice and competence and being accountable for their actions and omissions. They must work within NHS Lothian policies and procedures, recognising their limit of competence and knowing when to escalate to the Registered Healthcare professional. Nursery Nurses/Assistant

Practitioners are responsible for attending appropriate education and maintaining competency initially, and thereafter on a 2 yearly basis, ensuring their practice is appropriate, safe and in the best interests of the patient. The Nursery Nurses/Assistant Practitioners are responsible for reporting any patient changes or problems with the enteral feeding tube to the registered nurse. Nursery Nurses/Assistant Practitioners within the neonatal service can insert nasogastric tubes if they have completed the specific training and competency assessments and can evidence this to their ward manager. There is a responsibility of the nursery nurse/Assistant Practitioner to understand and adhere to the exclusion criteria outlined in this guideline, as to when nasogastric tube care requires escalation to a registered nurse, e.g.,

- Patient requires care out with the special care unit or transitional care
- Patient isn't recognised as meeting the British Association of Perinatal Medicine's (BAPM) criteria for special care or transitional care

Education of enteral tube feeding is available at induction for all new starters and is delivered by the Neonatal Education Team.

5.0 Delegation

The Registered Nurse should only delegate tasks and duties that are within the other person's scope of competence, and they should ensure that the person to whom they delegate fully understands their instructions, is adequately supervised, and supported. They should not delegate tasks that are beyond the skills and experience of the worker and should only delegate an aspect of care to a nursery nurse/Assistant Practitioner, who has had appropriate training and whom they deem competent to perform the task. Therefore, when delegating to a nursery nurse/Assistant Practitioner, the delegating Registered Nurse must have assurance that the nursery nurse/Assistant Practitioner has undergone training, has the appropriate knowledge, skills, and competency and that there is adequate supervision and support in place.

The nursery nurse/Assistant Practitioner must ensure and provide evidence to the Registered Nurse that they work within the limitations of their role, ensuring their practice is carried out in accordance with NHS Scotland HCSW Code of Conduct (2009), and adheres to NHS Lothian policy and legislation. The nursery nurse/Assistant Practitioner should evidence to the Registered Nurse that they understand their limitations and when to seek advice from the appropriate registered health care practitioner. The nursery nurse/Assistant Practitioner must both show awareness of and adhere to NHS Lothian guidance, policy, and procedures to ensure they maintain their competence to perform the role, reporting any concerns, including recognising and escalating the deteriorating patient to the registered practitioner.

Registered Practitioners will lead on the assessment, planning and evaluation of care, managing and coordinating care with contribution from other members of the multidisciplinary team, including Nursery Nurses/Assistant Practitioners.

5.1 Professional Regulation

The NMC Code (2018) requires that you must:

- Make sure that any information or advice given is evidence-based, including information relating to using any healthcare products or services
- Maintain knowledge and skills you need for safe and effective practice
- Gather and reflect on feedback from a variety of sources, using it to improve your practice and performance and also to provide honest, accurate and constructive feedback to colleagues.

The NHS Scotland HCSW Code of Conduct (2009) requires that:

- Healthcare support workers **must** ensure their practice is carried out in accordance with the standards set out within the NHS Scotland HCSW Code of Conduct, as well as organisational policies and procedures. This includes working to the standards of accountability and being responsible for actions and omissions; having awareness of what is within the agreed scope of the Healthcare support worker role; and communicating to the registered practitioner if they do not have the necessary skills, training or scope to undertake the task.

6.0 Principles of nasogastric tube insertion and care

A **nasogastric (NG)** tube is a fine flexible plastic tube which is inserted into the nostril of a patient and goes into the stomach, to be used for feeding or the administration of medication.

An **orogastric (OG)** tube follows the same principle, but is inserted into the mouth and goes into the stomach. The use of an OG tube is usually indicated by the patient being on some respiratory support and it is not possible to pass a NG tube.

Inserting an NG or OG tube is a common practice within the neonatal unit. However, there are risks of the tube becoming dislodged or passed into the lungs on insertion. Therefore, it is essential for all registered and non-registered staff on the NNU to have an understanding and awareness of what is required in carrying out this skill, the risks involved and must be able to troubleshoot if any problems.

6.1 Nasogastric tube indicated

- To provide an accessible and safe route to administer fluid, nutrition and medication when oral route is not advised
- When the patient is unable to orally gain adequate nutrition
- To allow drainage of the contents or removal of air from stomach.

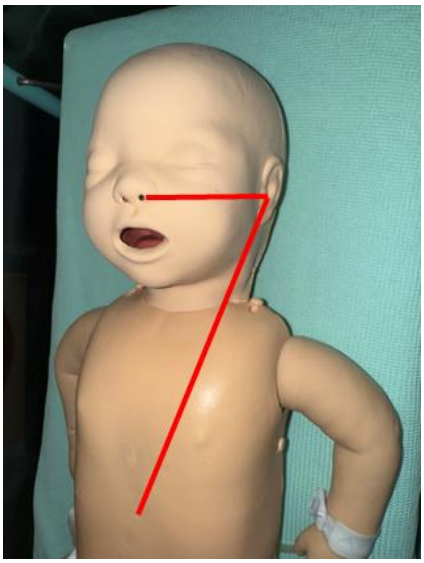
6.2 Types of NG tube used in practice

Gastric tube size

Weight	Gastric Tube Size
<2kg	**5fr**
2kg-4kg	**6fr**
>4kg	**8fr**

6.3 Insertion of nasogastric tube

- Cleanse hands in accordance with infection control policy
- Assemble equipment and place in an accessible position for carrying out the procedure
- Place infant's head in a neutral position
- Determine the length of nasogastric tube to be inserted by measuring from the tip of the nose to the earlobe then to the midpoint between the xiphisternum and the umbilicus (NEMU measurements)
- For orogastric tubes measure from the centre of the lips to the earlobe then to the midpoint between the xiphisternum and the umbilicus. See image 1.
- Ensure infant is in a comfortable position and swaddle if necessary



- If a nasogastric tube is being passed for the first time either nostril can be used, if being replaced pass it down other nostril. Orogastric tubes are often used in smaller infants or infants who are requiring nasal CPAP
- Gently insert the tube into the nostril at a 60-degree angle with the face, with the tip of the tube pointing towards midline, so that the tube passes along the floor of the nose, advance the tube until you reach the desired length. If you feel any obstruction, pull the tube back and advance again, if you continue to feel the obstruction, stop and attempt to pass into other nostril. Orogastric tubes should be passed into the mouth in a backward and downward direction.

6.4 Confirming nasogastric tube placement initially and ongoing

- Placement of the gastric tube should be assessed by aspirating a small amount of gastric contents with an enteral syringe and tested with a pH strip. Follow the decision tree to determine if tube satisfactory to use.

- If pH is 5.5 or above, please contact Team Lead in order to troubleshoot and consider the following:
- Is there any evidence of tube displacement?
- Is the infant on medication which may affect the pH?
- Is the infant on continuous feeds or had a feed within the last hour? If so, retest after 15-30 minutes.
- If no aspirate is obtained, attempt to reposition the baby and try again. If still no aspirate, retract the tube 1-2cms and try again. If you continue to get no aspirate, remove the tube and pass a new gastric tube or contact the team lead for advice
- If the baby shows coughing, retching, desaturation, cyanosis or tachypnoea following the procedure, the tube is most likely not in the stomach
- **Auscultation is not** appropriate to be used for confirming tube placement
- When you are satisfied with tube position, it can be secured using appropriate fixations. Please consider the use of DuoDERM in smaller infants
- Always ensure to record the size of gastric tube and length in badger.

6.5 Administering fluid, medication and feed via nasogastric tube

- All medication prescribed via NG tube must be prescribed as such on the prescription chart and dispensed as a liquid solution. **Nursery nurses/Assistant Practitioners are only able to administer limited medication via NG tube within their scope of practice and the NHSL guidelines.**
- Please discuss with pharmacy team if medication isn't available in liquid form, as there is a risk of blocking the tube if an insoluble preparation is used
- Feeding regimen is determined by NHSL guidelines for feeding in NNU and the dietitian.

7.0 References

National Patient Safety Agency (March 2011) Patient Safety Alert NPSA/2011/PSA002: Reducing the harm caused by misplaced nasogastric feeding tubes in adults, children and infants. Available at: 2011 03 08 NGT Supporting information FINAL.pdf

Scottish Perinatal Network (2025) West of Scotland Neonatal Guidelines. Available at: Nasogastric or Orogastric Feeding Tube – Confirming the Position WoS

Ernstmeyer, K. and Christman, E. (2023).*Chapter 5 Insert Nasogastric and Feeding Tubes*. [online] National Library of Medicine. Available at: https://www.ncbi.nlm.nih.gov/books/NBK594494/

8.0 Monitoring and Review

The effectiveness of these guidelines will be monitored and evaluated using outputs from:

Staff experience feedback, DATIX investigations, complaint investigations/improvement plans. These guidelines will be reviewed, as a minimum, every three years, but may be subject to earlier review in the event of changes in best practice, guidance or legislation, results from performance reviews and audits, or any other factors that may render them in need of review.