

MCN for Neonatology West of Scotland Neonatal Guideline



Placement of Nasogastric and Orogastric Tubes

Scope of this Guideline

This guideline is applicable to all healthcare professionals (HCP) and nursing support staff working in Neonatal Units in the West of Scotland. All staff should be deemed competent in gastric tube placement and care (1) to ensure passage of a nasogastric or orogastric feeding tube will be standardised throughout the neonatal service.

Contents

- 1.0 Aim of the Guideline
- 2.0 Background Information
- 3.0 Procedure for Insertion
- 4.0 Additional information on Using the Gastric Tube

1.0 Aim of the Guideline

- To promote a clear, consistent, and evidenced based approach to the insertion, care and management of nasogastric and orogastric tubes
- To promote the safety and well-being of all patients who require a nasogastric or orogastric tube.

2.0

Background Information

Nasogastric tubes (NGT) and Orogastric tubes (OGT) have more than one function in the neonatal population. This includes:

- Gastric decompression
- Gastric aspirate monitoring for feed tolerance
- Providing nutrition

The passage of a gastric tube is classified as a blind procedure (2), which means that when the tube has passed into the mouth or nose, we cannot visually direct the tube into the correct position. The correct placement of the tube also cannot be confirmed visually when in use. Therefore, there is a small risk that gastric tubes can be misplaced during the insertion procedure, or they can move out of the stomach after insertion.

The incorrect placement of a gastric tube can lead to life threatening complications such as aspiration pneumonia (3,4). It is therefore crucial that a clinical procedure is followed on passage of the tube and to confirm the position of the tube on insertion and prior to use.

*** Note for the purpose of feeding, generally ONLY nasogastric tubes are used. Please check local policy***

What is a gastric tube?

A gastric tube is a fine bore, polyurethane tube that is either passed through the mouth (orogastric tube, OGT) or through the nasal cavity (nasogastric tube, NGT), into the back of the throat, down through the oesophagus through the lower oesophageal sphincter and into the stomach.

Trans-anastomotic tubes (TAT)

Trans-anastomotic tubes (TAT) Trans-anastomotic tubes (TAT) are inserted by the surgical team during surgery through an anastomosed section of the gastrointestinal tract. These specialised tubes are not within the scope of this policy.

Parent Participation

In the Neonatal Unit parents should always be supervised whilst tube feeding their baby until they are assessed by a competent NNU HCP and signed off as competent. Each parent/carer should have their own competency document, and they should be encouraged to seek assistance if they struggle to obtain adequate aspirate or are unsure of the procedure. It may be appropriate for a baby to be discharged into the community whilst continuing to receive gastric tube feeding. In such circumstances the parent/carer for the baby should receive specific training on the use of gastric tubes and their competence confirmed prior to discharge. Refer to local policy for details.

STEP 1: IDENTIFY THE NEED FOR A GASTRIC TUBE

There are many different reasons why gastric tubes are used in the neonatal population:

Table 1

1.	Indication	Further Information
	Gastric Decompression	<ul style="list-style-type: none"> • A gastric tube should be in-situ in any neonate who requires respiratory support (except low flow or incubator oxygen). This helps prevent the accumulation of excess air in the stomach which can result in respiratory compromise. • In the event of a suspected aspiration, appropriate gastric tube placement facilitates the aspiration of gastric contents. • A gastric tube should be in place in neonates with a surgical condition resulting in increased gastric aspirates i.e., gastroschisis, full or partial bowel obstruction (atresia, webbing, imperforate anus, ileus etc).
	Assessment of gastric contents	<ul style="list-style-type: none"> • Gastric residuals are often assessed to ascertain feed toleration. This may be the case with preterm neonates, surgical or sick term neonate. • Any surgical neonate with an obstruction should have a gastric tube on free drainage.
	Establishing Feeds	<ul style="list-style-type: none"> • Preterm neonates who are establishing feeds may require supplementation by means of a gastric tube. • Infants unable to coordinate suck, swallow, breathing patterns. • Neonates with reduced growth may require supplementary feeds via a gastric tube.
	Exclusion of congenital anomalies	<ul style="list-style-type: none"> • Passage of a gastric tube may facilitate exclusion of congenital anomalies such as choanal atresia/oesophageal atresia.
	Prior to chest x-ray	Facilitate differential diagnosis (5)

Contraindications to gastric tubes

Contraindications do not exclude the use of a gastric tube. However, when present contraindications should always be discussed with the Neonatal Consultant prior to attempting to pass a gastric tube.

Where contraindications are present there may be an increased risk of complications such as trauma or misplacement of the gastric tube (Table 2).

Table 2

	Contraindication for Gastric Tube	Further Information
	Evidence of trauma	Pathology including: <ul style="list-style-type: none">- Oesophageal perforation- Gastric perforation- Neonate who has recently undergone surgery
	Neonates with a known anatomical deformity	Pathology including: <ul style="list-style-type: none">- Tracheoesophageal fistula- Oesophageal atresia- Choanal atresia
	The neonate has a tracheostomy	

Complications associated with use of a gastric tube

Gastric tubes are routinely used in the neonatal population. However there needs to be an awareness of potential complications which may be associated with their use. (6)

Potential Complications include:

- Irritation/necrosis of nasal mucosa
- Perforation at any point along the track of insertion, including trachea or lung
- Nasal obstruction
- Displacement after insertion
- Associated infection
- Breakage of the tube
- Grooved palate misplacement
- Tube misplacement (Table 3)

Complications associated with misplacement of a gastric tube

Table 3

	Tip of Gastric Tube	Potential Consequences of misplacement
	General potential effects of misplacement	<ul style="list-style-type: none">- Respiratory compromise- Inadequate GI decompression- GI distension- Vomiting- Discomfort/Pain
	Potential effects on respiratory tract	<ul style="list-style-type: none">- Aspiration pneumonia- Atelectasis Pleural effusion- Death
	Oesophagus/Lower oesophageal sphincter	<ul style="list-style-type: none">- Gastroesophageal reflux- Aspiration- (Apnoea, Bradycardia, Colour change)
	Small Intestine	<ul style="list-style-type: none">- GI disturbances

Step 2 Discuss with Parents the need for passage of a gastric tube

There may be instances where passage of a gastric tube will be in the best interests of the baby. This may include during resuscitation or stabilisation. However, where the passage of a gastric tube is not an urgent procedure this should be discussed with the parents and where possible verbal consent obtained.

Step 3 Identify the Appropriate route for the gastric tube

It is important to identify which gastric tube is most appropriate for the baby. This may be dependent on circumstance or pathology.

Orogastric Tube:

Orogastric tube may be the most appropriate if:

- If the baby is on non-invasive ventilation e.g. CPAP or high flow (HF)
- There is evidence of nasal trauma
- Some facial deformities
- Choanal atresia
- Signs of respiratory distress

*** Note: Orogastric tubes are more prone to displacement, local irritation and vagal stimulation. (7) They are generally not used for the purpose of providing milk feeds. Check local policy.**

Nasogastric Tube:

May be the most appropriate:

- When orogastric tube is not indicated.
- It is easier to secure and less likely to be displaced during gastric feeding. (8)
- If the baby is well established on HF and the nasogastric tube will not occlude more than 50% of their nose.

Step 4 Gather Equipment Required

- Clean tray for equipment
- Non-sterile gloves and apron
- Disposable tape measure
- Correct size gastric tube
- Hydrocolloid dressing or skin preparation
- Securing tape
- Scissors
- 10ml enteral syringe
- pH paper and comparison chart
- Appropriate means to mark tube position e.g. tape or indelible ink marker pen

Other considerations:

- An assistant
- Mothers expressed milk or sucrose
- Resuscitation equipment should be available and working
- Free drainage bag

Step 5 Select the size of gastric tube

There is a range of different sized gastric tubes available on the NNU. As gastric tubes in the Neonatal Unit are a temporary intervention, short term polyurethane tubes which are radiopaque and have visible markings are used (therefore are NPSA compliant (3)).

A link between long term gastric tubes and chest infection in preterm babies has been highlighted therefore it is advised that tubes are changed every 7 days. (9)

A weight-based method to guide gastric tube size selection can be viewed in Table 4. Preterm babies who are either less than 26 weeks gestation or less than 500 grams should have a size 4 gastric tube due to their physical size or the fragility of their tissues.

If a baby has a surgical concern, they should have their gastric tube upsized to the next sized tube available. It is worth considering that if this upsized gastric tube is placed nasally this may be too big and cause obstruction or trauma so you may need to switch to the oral route.

Table 4 **Size of Gastric Tube**

	Weight (grams)	Gastric Tube Size (fr)	Surgical Babies
	<500 or <26 weeks gestation	4	5
	500-1500	5	6
	>1500	6	8

Further Information

- In bigger babies, where thickened feeds are prescribed, larger diameter tubes (size 8 Fr) may be required to administer feeds.
- Surgical Infants will initially require size 8 Fr gastric tube passed, once nasogastric aspirates decrease an appropriately sized tube can be passed.
- A size 10 Fr gastric tube may be required orally when gut decompression is required – congenital diaphragmatic hernia, gastroschisis or large amounts of bilious aspirates due to bowel obstruction.
- Oesophageal Atresia – A size 10 Fr Replogle tube is passed orally and continuous suction of 5 Kpa is applied. The oesophageal pouch should be flushed with 0.5 ml 0.9% Sodium Chloride every 15-30 minutes and the tube observed closely for patency afterwards.
- Gastric tubes stoppers are closed when they are not used for the administration of bolus feeding. Free drainage of gastric tubes is used when gut decompression is required. To carry out free drainage, the external end of the tube is inserted into a bile bag and the stopper opened.
- If an infant, who is receiving nCPAP therapy, has gaseous abdominal distension ('CPAP belly'), they may have the gastric tube attached to a syringe barrel which is then elevated. This may allow excess air to be vented from the stomach.
- Short-term gastric tubes are made of polyvinyl chloride and can remain in place for up to a week. Items marked 'single use' or should not be re-used.

Step 6 Skin Care

Premature neonates have immature and fragile skin. The use of a hydrocolloid dressing (i.e., Comfeel or Duoderm) or a skin preparation (i.e., Derma-s or Cavilon) should be applied to a preterm baby's skin as a barrier before tape is used to secure a gastric tube.

In term infants it is acceptable to stick the tape directly to the skin. However, it is important to remember that any tapes applied to the skin should be removed using an adhesive remover such as Appeel, to ensure the skin is not damaged

Step 7 Prepare environment

Ensure the baby is on a safe, stable, non-mobile surface. Consider adjusting the height of the incubator/overhead etc so that access to the baby is improved. Also ensure that there is a good light source to facilitate close observation of the baby during the procedure.

Step 8 Clean Hands as per trust policy

Hands should be decontaminated before, during and after patient contact using.

- Wash with soap and water as per hospital policy if hands are visibly soiled or potentially contaminated with bodily fluids.
- Alcohol gel can be used if hands are visibly clean.

Step 9 Prepare equipment.

All equipment should be ready and easily accessible during the procedure.

- Removing any unnecessary packaging
- Cut tape to required size.
- Remove pH strip from tube.
- Placing a 10ml syringe on end of gastric tube (loosen the syringe plunger before use)

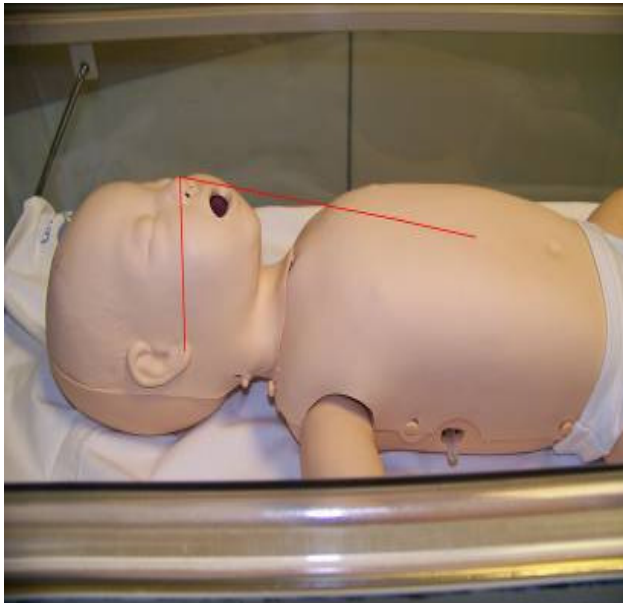
Step 10 Measure the length of insertion.

It is acknowledged in the literature that the nose-ear-xiphisternum (NEX) method of measurement was inaccurate, leading to a high percentage of gastric tubes being too high. (10) This guideline therefore recommends the nose-ear-mid umbilicus (NEMU) method.

How to Measure

1. Ensure that the baby is lying comfortably in midline supine position. Containment hold and non-nutritive sucking can be provided by an assistant to ensure the baby remains calm.
2. Measure from the corner of the mouth or the tip of the nose.
3. To the bottom of the earlobe
4. To the observed midpoint between the xiphisternum and the umbilicus (Diagram 1)

Diagram 1



NEMU (Nose-ear-mid umbilicus)

Orogastric tube:

Corner of the mouth → bottom of ear lobe → midpoint between xiphisternum and umbilicus

Nasogastric tube:

Tip of the nose → bottom of ear lobe → midpoint between xiphisternum and umbilicus

WBF (Weight based formula)

Orogastric tube:

OGT length = $[3 \times \text{weight (kg)}] + 12\text{cm}$

Nasogastric tube:

NGT length = $[3 \times \text{weight (kg)}] + 13\text{cm}$

When the measurement (NEMU) method has been undertaken you should use the weight-based formula (WBF) to check the length measured (see above). It has been reported that the incorporation of a WBF as a check to the morphological measures, improves correct placement (11,12,13). The longest length obtained, when comparing NEMU with WBF, should be used as the desired distance for insertion. For example: baby 1kg, NEMU measurement 18cm, WBF 18.7cm – insert to 19cm.

Step 11 Ensure baby is comfortable.

Ensure the baby is as comfortable as possible during the procedure.

Consider:

- Containment holding if parent or an assistant is available.
- Swaddling can be used if there is no assistant available.
- Mother's breast milk (MBM) or Sucrose pre-procedure – can be combined with non-nutritive sucking.

Step 12 Insertion of the gastric tube.

NB - If a chest or abdominal x-ray is being performed in a baby who is likely to need a feeding tube it is best practice to ensure that the tube is passed prior to the x-ray being performed. The x-ray will confirm the position of a tube even if you are unable to obtain an aspirate.

1. Carry out hand hygiene before handling the baby, don non-sterile gloves and disposable apron.
2. Assemble equipment and place in an accessible position for carrying out the procedure.
3. Ensure the infant is in a comfortable position and swaddled if required.
4. Give baby mothers breast milk if available or sucrose where appropriate.
5. The baby's face should be gently cleaned with water, dried and then a small strip of hydrocolloid tape applied to the face either level with the nostrils or at the sides of the mouth. The tube can then be secured to the hydrocolloid dressing using tape.
6. With the head in the neutral position, determine the length of tube to be inserted by measuring from the earlobe to the tip of the nose (nasogastric) or from the earlobe to the centre of the lips (orogastric), then to the midpoint between the xiphisternum and the umbilicus. Note the measurement and mark the tube accordingly (Diagram 1). Check the measurement with the WBF (weight-based formula) (Diagram 1). Place marker pen line or tape approximately 1cm away from nose or mouth.

Nasogastric tube fixed in position with an indelible pen marker or tape 1cm from nose. NB smaller babies, or those with damaged skin, should have a hydrocolloid dressing applied under the tape (Diagram 2)

Diagram 2



7. If the nasogastric tube is being passed for the first time, either nostril can be used. If the tube is being replaced, try to pass it down the opposite nostril to that used previously. Orogastric tubes are obviously passed by the oral route and are indicated for smaller babies with consequently small nasal passages on nasal CPAP or in any other conditions involving blockage or obstruction of the nares.
8. A nasogastric tube should be gently passed into the nostril then advanced carefully in an upward, backward and slightly medial direction. If there is any obstruction, pull the nasogastric tube back and re-advance. If the obstruction continues, try the other nostril. Non-nutritive sucking and/or sucrose or MEBM, may reduce distress to the infant during the procedure and may also stimulate peristalsis. Any evidence of obstructed nasal passage should be documented, and medical staff informed. An orogastric tube is passed in a more backward and downward fashion. The use of lubricating jelly such as Aquagel may assist in the passage of a nasogastric tube if the procedure is proving difficult.
9. The tube should be advanced until 1 cm before the measured length of the black marker/tape has been reached. Secure the tube in position to the side of the face using fixation as described above, prior to attempting to aspirate gastric contents.
10. If at any time the infant starts coughing or becomes cyanosed, stop the procedure and remove the tube.

11. Check inside the baby's mouth to ensure that the tube is not coiled up at the back of the throat.
12. Attach the syringe to the gastric tube and aspirate just enough to test gastric pH (no more than 0.2ml).
13. Cover the pH strip with the aspirate and allow 10 -60 seconds for the colour to develop.
14. A pH reading of 5.5 or below should indicate satisfactory placement of the tube but remember to always match the pH strip with the colour code chart on the booklet or box - if in any doubt, do not feed. If you are unable to obtain any aspirate or pH is above 5.5, refer to WoS guideline "**Nasogastric / Orogastric Tubes: Confirming Position**" for troubleshooting information.
15. Ensure that documentation is completed – note on SCBU / ITU chart date that a new tube was passed, size of tube used, the measured length of the tube and the pH level of the gastric aspirate.
16. If the baby is having bolus feeds, aspirate the tube and test for pH level prior to every feed using minimum of aspirate (no more than 0.2 ml). If the baby is on continuous feeds or is receiving nil orally, aspirate the tube and test the pH level every 4-6 hours. In addition, should there have been any vomiting, retching or coughing or should there be any indication that the tube may have become dislodged (loose tapes, pen mark line further than 1 cm from nose / mouth) the tube should be aspirated and pH again estimated.
17. Surgical neonates: refer to surgeon's instructions regarding aspiration of gastric contents.

Key points to remember.

- You should never need to use force to pass a gastric tube.
- If you feel resistance, withdraw slightly, and try again.
- If resistance is still felt, then withdraw the tube and ask for some senior support.
- You should not have multiple attempts. Ask for senior advice.
- If there is any resistance to pass the gastric tube beyond the oropharynx, this is indicative of oesophageal atresia and appropriate care should be prioritised.
- If it is not possible to pass a nasogastric tube beyond the nares, this is indicative of Choanal atresia and appropriate care should be prioritised.

It is not uncommon for babies to cough, gag or transiently drop heart rate during insertion of a gastric tube (14). However, additional signs that the procedure is not being tolerated include onset of respiratory distress, vomiting and bleeding. If any of these signs occur and there is no quick spontaneous recovery, withdraw the tube, provide support as required and ask for assistance (14). If, when you remove an unsuccessfully passed tube there is blood on the tip of the tube, this should be clearly documented in nursing/medical notes.

NB: NOTHING should be introduced down the gastric tube before gastric position is confirmed

If there is a situation where gastric tube position cannot be confirmed either by pH testing of aspirate or position of gastric tube on x-ray, then the gastric tube **MUST NOT** be used (3).

Step 13 Dispose of waste and clean hands as per trust policies

All waste should be disposed of as per the trust policy and your hands should be decontaminated.

Step 14 Document procedure.

In paper notes or electronically, follow local guidance on documenting procedure:

- Date and time of procedure
- Gastric tube size
- Length by NEMU and WBF
- Length of insertion
- Route used OGT / NGT
- Which nostril used
- pH
- Aspirate obtained: liquid (volume, colour), air (volume)
- Tolerance of procedure or complications
- Sign and print your name

4.0 Additional Information on Using the Gastric Tube

Confirmation of tube placement should occur each time the gastric tube is used. This is to ensure that the tip of the gastric tube has not migrated (4). Refer to Guideline "Confirming the Position of an Orogastric and Nasogastric Tube in Neonates" which provides a flow chart for guidance on confirmation of gastric tube placement.

Gastric tube placement must be checked:

- On insertion of the tube
- Before administration of feed or medicine
- If there is any evidence of tube displacement (2).
- 3-4 hourly in babies who are "nil by mouth".
- After every syringe change in babies who are being fed by continuous feed (NPSA 2005b)
- If there is any episode of vomiting, retching or coughing during a feed.

Before using the gastric tube check:

1. pH of aspirate
2. Security of tape and length at point of insertion (15).
3. Colour and type of aspirate

pH Measurement

The first line of testing for all gastric tubes is to measure the pH of the fluid obtained on aspiration using pH paper that is CE marked and manufactured for the testing of human gastric aspirate (3). It is important to always check the pH strip against the colour code chart on the side of the test pot (5).

Limitations of pH testing include:

- Gestational age and postnatal age
- Dilution of gastric acid by feed
- Minimal aspirates in babies who are fed small volumes or not fed.
- Frequent or continuous feeds
- Medications – such as antacids: Gaviscon, Proton pump inhibitors: Omeprazole, Lansoprazole, H2 antagonists: Ranitidine
- Interpretation error (16).

X-ray Confirmation of Gastric Tube Placement

X-ray confirmation of gastric tube position is not routine procedure in neonates (2). If you cannot check pH due to minimal aspirate or the pH is 6 or higher, an x-ray may be considered as the second line of testing. However, this will only provide confirmation of tip placement at the time of x-ray.

4 key x-ray criteria have been identified which should be met prior to using a gastric tube (3):

- Does the gastric tube follow the oesophagus/avoid the contours of the bronchi?
- Does the gastric tube clearly bisect the carina or the bronchi?
- Does the gastric tube cross the diaphragm in the midline?
- Is the gastric tube tip clearly visible below the left hemi-diaphragm?

X-ray confirmation must be documented in the notes either in paper notes or electronically. Please follow local guidance on this.

References

1. National Patient Safety Agency (2011b) Patient Safety Alert NPSA/2011/PSA002 Reducing the harm caused by misplaced nasogastric feeding tubes in adults, children and infants: Supporting information. Available at: https://www.cas.mhra.gov.uk/ViewandAcknowledgment/ViewAttachment.aspx?Attachment_id=101342 [Accessed 17th October 2024].
2. NHS Improvements (2016) Resource Set: Initial placement checks for nasogastric and orogastric tubes. Available at: https://improvement.nhs.uk/documents/193/Resource_set_-_Initial_placement_checks_for_NG_tubes_1.pdf [Accessed 10th October 2024]
3. National Patient Safety Agency (2011a) Patient Safety Alert NPSA/2011/PSA002 Reducing the harm caused by misplaced nasogastric feeding tubes in adults, children and infants <https://www.cas.mhra.gov.uk/ViewandAcknowledgment/ViewAlert.aspx?AlertID=101559> [Accessed 3rd October 2024]
4. National Patient Safety Agency (2016) Patient safety alert. Nasogastric tube misplacement: continuing risk of death and severe harm. Available at: <https://www.cas.mhra.gov.uk/ViewandAcknowledgment/ViewAlert.aspx?AlertID=102504> [Accessed 15th October 2024]
5. National Patient Safety Agency (2005b) How to confirm the correct position of naso and orogastric feeding tubes in babies under the care of neonatal units. Available at: <https://webarchive.nationalarchives.gov.uk/20171030131002/http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59798&p=4> [Accessed 10th October 2024]
6. Greenleaf, A. (2017) 'Chapter 40: Gastric and Transpyloric Tubes' in MacDonald, M., Ramasethu, J. and Rais-Bahrami, K. (eds.) *Atlas of Procedure in Neonatology*, 5th Edition, Wolters Kluwer Health, Lippincott Williams and Wilkins pp278-284.
7. Watson, J and McGuire, W (2013) Nasal versus oral route for placing feeding tubes in preterm or low birth weight infants (Review). Available at: <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD003952.pub3/e.pdf/full> [Accessed 21st February 2024]
8. Spence, K. and Connolly, A. (2020) 'Chapter 17: Nutrition and feeding in the neonatal unit', in Boxwell, G., Petty, J. and Kaiser L., *Neonatal Intensive Care Nursing*, Routledge: Taylor Francis Group, London, pp437-463
9. Medicina (2019) ENFit: Medicina nasogastric feeding tubes. Available from: <https://medicina.co.uk/wp-content/uploads/2020/01/ENFITNGMKT003.pdf> [Accessed October 2024]
10. Cirgin Ellett, M., Cohen, M., Perkins, S., Smith, C., Lane, K. and Austin, J. (2011) Predicting the insertion length for gastric tube placement in neonates. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3140585/> [Accessed 17th October 2024]
11. Freeman, D., Saxton, V. and Holberton, J. (2012) A weight-based formula for the estimation of gastric tube insertion length in newborns. *Advances in Neonatal Care*, 12(3), pp179-182
12. Nguyen, s., Fang, A., Saxton, V. and Holberton, J. (2016) Accuracy of a weight based formula for neonatal gastric tube insertion length. *Advances in Neonatal Care*, 16(2), pp158-161
13. Kato, Y., Hirata, K., Oshima, Y. and Wada, K. (2019) Placement of_ nasogastric_ tubes_Report_V07.pdf [Accessed 15th October 2024]
14. Clifford, P., Heimall, L., Brittingham, L. and Davis, K. (2015) Following the evidence: Enteral tube placement and verification in neonates and young children. *The Journal of Perinatal and Neonatal Nursing*, 29(2), pp149-161
15. Dias, F., Emidio, S., Lopes, M., Shimo, A., Beck, A. and Carmona, E. (2017) Procedures for measuring and verifying gastric tube placement in newborns: an integrative review. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5511002/> [Accessed 10th October 2024]
16. Kemper, C., Haney, B., Oschman, A., Lyman, B., Parker, L. and Brandon, D. (2019) Acidity of enteral feeding tube aspirate in neonates: do pH values meet the cut off for predicting gastric placement? Available at: <https://pubmed.ncbi.nlm.nih.gov/30720480/> [Accessed 5th October 2024]

17. Watson, J and McGuire, W (2013) Nasal versus oral route for placing feeding tubes in preterm or low birth weight infants (Review). Available at: https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD003952.pub3/e_pdf/full [Accessed 21st September 2024]
 18. Parker, L., Withers, J. and Talaga, E. (2018) Comparison of neonatal nursing practices for determining feeding tube insertion length and verifying gastric placement with current best evidence. *Advances in Neonatal Care*, 18(4), pp307-317
 19. Healthcare Safety Investigation Branch (2020) Placement of nasogastric tubes: Independent report by the Healthcare Safety Investigation Branch 2019/006. Available from: https://hsib-kqcco125-media.s3.amazonaws.com/assets/documents/HSIB_
 20. WoSPGHaN (2012) Enteral tube feeding information pack for healthcare professionals. Available at: <https://www.wospghan.scot.nhs.uk/Info%20leaflets/Final%20ETF%20Info%20for%20staff.pdf> [Accessed 15th October 2024]
-

Author (original version)

Andrena Kelly – Nurse Educator - Neonatal Surgical Department, RHC

Author (May 2025 Review)

Lavinia Raeside – ANNP – RHC, Glasgow.

Other Professionals Consulted

Sharron Lynch - Neonatal Nurse Educator/Quality Midwife, PRM

Catherine Nicoll - Neonatal Nurse Educator, RHC.

Document Name

WoS_NGT Placement Neonates

Implementation / Review Dates

Implementation 18/05/2015

Reviewed 20/05/2025

Update Due 20/05/2028