



Topic Expert Group: Care procedures

Inserting and managing feeding tubes

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Target group

Infants and parents

User group

Healthcare professionals, neonatal units, hospitals, and health services

Statement of standard

Inserting and managing feeding tubes in infants is performed by a trained person and adjusted to infant's needs and comfort.

Rationale

Tube feeding either via a nasogastric or orogastric tube is vital for nourishment until the infant can take full feeds by breast or bottle. Feeding tubes are also used for decompression of air and administration of medication. The way in which the feeding tube is inserted and tube feed is given makes a difference to the infant's food tolerance and comfort. Hypersensitive responses to oral stimulation and sensory defensive responses are two examples preterm infants can develop during tube feeding. (1)

Prolonged use of tube feeding is associated with reflux and difficulty making the transition to full sucking feeds (1), or later to taking solids. The presence of the tube may irritate the infant and stimulate the gag reflex. In the long term, tube fed infants may become used to this irritant, which can impair sensitivity and interfere with sucking and swallowing when oral feeding is introduced. Furthermore, healthcare professionals must be aware of the potential risks due to phthalate exposure in the neonatal unit. Therefore, materials should be identified and alternative devices should be considered. (2)

There is a small risk that the enteral feeding tube can be misplaced into the lungs or ethmoid during insertion, or move out of the stomach at a later stage. Misplacement can be recognised at an early stage, e.g. before the tube is used. There are several methods to check the placement of nasogastric feeding tubes. (3,4)

Benefits

Short-term benefits

- Reduced risk of complications due to inserting feeding tubes (4)
- Reduced pain and discomfort during insertion of the tube (5) (see TEG Care procedures)
- Reduced stress for parents (6)

Long-term benefits

- Reduced problems with transition to oral feeding (1,7)
- Improved sensory development (1)



Components of the standard

Component	Grading of evidence	Indicator of meeting the standard
For parents and family		
1. Parents are informed by healthcare professionals about the possibility of tube feeding. (8)	A (Moderate quality) B (High quality)	Patient information sheet
2. Parents are trained by healthcare professionals to recognise and act upon infant's signs of discomfort during tube insertion. (8) (see TEG Care procedures, see TEG Infant- and family-centred developmental care)	A (Moderate quality) B (High quality)	Training documentation
3. Parents have the possibility to be present and to support their infant during tube insertion. (8)	A (Moderate quality)	Parent feedback
For healthcare professionals		
4. A unit guideline on managing and maintaining feeding is adhered to by all healthcare professionals. (9,10)	B (High quality)	Guideline
5. Theoretical and practical training on managing and maintaining feeding tubes is attended by all responsible healthcare professionals. (4,11–14)	A (Moderate quality) B (High quality)	Training documentation
For neonatal unit		
6. A unit guideline on managing and maintaining feeding tubes is available and regularly updated. (9,10) (see TEG Care procedures)	A (Moderate quality) B (High quality)	Guideline
For hospital		
7. Training on inserting and maintaining feeding tubes is ensured. (9) (see TEG Patient safety & hygiene practice)	A (Moderate quality) B (Moderate quality)	Training documentation
8. Different tube sizes and tubes of safe material are available, so the size of the tube can be chosen on an individualised basis. (2)	A (High quality)	Audit report
9. Different fixation material matching with the individual infant are available. (15)	B (Moderate quality)	Audit report



For health service		
10. A national guideline on tube insertion, including material safety is available and regularly updated. (16)	B (High quality)	Guideline

Where to go – further development of care

Further development	Grading of evidence
For parents and family N/A	
For healthcare professionals N/A	
For neonatal unit N/A	
For hospital N/A	
For health service	
<ul style="list-style-type: none">Facilitate research on phthalates in tubes use in vulnerable infants.	A (Low quality)

Getting started

Initial steps
For parents and family
<ul style="list-style-type: none">Parents are verbally informed by healthcare professionals about tube insertion and management.
For healthcare professionals
<ul style="list-style-type: none">Attend training on managing and maintaining feeding tubes.
For neonatal unit
<ul style="list-style-type: none">Develop and implement a unit guideline on managing and maintaining feeding tubes.Develop information material on tube insertion and management for parents.
For hospital
<ul style="list-style-type: none">Support healthcare professionals to participate in training on managing and maintaining feeding tubes.
For health service
<ul style="list-style-type: none">Develop and implement a national guideline on tube insertion, including material safety.



Description

Inserting nasogastric and orogastric tubes: step by step: (17)

ACTION	EXPLANATION
Explain procedure and infant's possible reaction.	
Invite parents to support baby e.g. holding, sucking, grasping.	Strengthens parents role in comforting and protecting their infant.
PREPARATION	
Select an appropriate tube	
Make sure that you have everything ready at the cot side e.g. tube, materials for fixing, dummy, bedding support, person to assist if available.	So you can give the infant your full attention and don't leave the infant.
Remove old fixings with oil or water	
INSERTING	
Consider most comfortable position for the infant and for caregiver to insert smoothly. Side lying is likely to be preferred by the infant if this is compatible with other treatments. Make the infant comfortable and secure e.g. wrapping, arms tucked in, legs folded, surface for foot bracing. Consider possibility of the infant being supported on mother lap/in her arms.	The choice of position and positioning supports make a difference to the infant's ability to be still and calm. This is often easiest on the side and most difficult on the back. The calmer the infant the easier it is to insert the tube.
If the infant does not have an ET tube offer a dummy to encourage sucking before inserting tube.	Sucking will help the infant to swallow tube.
Pace sliding the tube down to maintain minimum levels of arousal.	
Fix tube securely with skin friendly material. Use smallest possible pieces and place to avoid interference with eyelids and mouth.	Minimise risk of damage to skin. To avoid irritation and disorganised behaviour.
AFTER	
Provide comfort. Stay with the infant until settled.	Ensure rapid return to stability. Infants physiological reactions may be delayed.

Source

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