National Nurses Nutrition Group

Registered Charity No: 295411

Good Practice Guideline – Safe Insertion of a Retaining Device for Nasogastric (NG) and Nasojejunal (NJ) Feeding Tubes (in Adults)

Good Practice Guideline

Safe Insertion and ongoing care of patients with a Nasal Retaining Device for Nasogastric (NG) or nasojejunal (NJ) Feeding Tubes in Adults

2017
(To be reviewed 2020)

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Introduction

Adequate nutrition and fluid is essential to promote recovery from illness or surgery. Disease related malnutrition is associated with increased morbidity and prolonged length of stay (NICE 2006). Enteral feeding tubes such as nasogastric (NG) and nasojejunal (NJ) tubes are essential tools in providing access to deliver nutrition support. However as the tubes are, only secured externally tube displacement is not uncommon. A feeding tube that is repeatedly displaced means that the patient is unlikely to receive adequate nutrition and hydration. It also submits the patient to repeated discomfort as attempts are made to replace the feeding tube and could be seen as being wasteful of time and resources (Curtis 2013).

A nasal tube retaining device is a specialised piece of equipment that secures the nasogastric (NG)/nasojejunal (NJ) tube and reduces the risk of inadvertent displacement in patients requiring enteral administration of feed, fluid or medication (Seder et al 2010, Brugnolli et al, 2014) . It consists of two magnetic probes, one with a length of cotton tape attached. The aim is to insert the probes into the nostrils and wrap the cotton tape around the vomer bone that separates the nostrils, and attach onto the feeding tube with a fixation clip.

The use of a nasal retention device may be considered a form of restraint by some healthcare environments. The RCN's document 'Let's talk about restraint' (2008) provides clarity regarding the definition of this term. The device discussed within this document is a retention device to assist nutrition support. It is not a form of restraint. Placement of a nasal retention device should be undertaken following discussion within the multidisciplinary team and with the patient and only where other methods of securing the nasal feeding tube have been explored. It should never be considered a routine procedure post nasogastric or nasojejunal tube placement.
The insertion of a nasal tube retaining device is not an emergency procedure and therefore should not be routinely undertaken out of hours or by someone who is not competent to undertake the procedure.

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Indications for a nasal tube retention device include:

- Patients that have inadvertently removed at least 2/3 nasogastric tubes within a 48-72 hour period (depending on local policy).
- Patients who are pulling at other types of devices, e.g. urinary catheters, intravenous cannulae and who require nasogastric tube for feeding and administration of medicines.
- Elective use to retain NG/NJ tubes which are considered difficult to replace or when replacement would be a high risk or a technically difficult procedure (whether bedside placement, endoscopically or radiologically).
- Patients being discharged into the community with NG/NJ tube (depending on local policy).

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Assessment			
No	**Action**	**Rationale**	**Reference**
1.	A multi-disciplinary team (MDT) approach to the initiation of a nasal tube retention device should be utilised. The responsibility for the decision to place a nasal tube retention device lies with the senior healthcare professional/clinician in charge of the patient's care. **Before undertaking the procedure:** • Ensure the rationale for the decision to insert a nasal tube retention device has been clearly documented in the patient's notes. • Ensure rationale and goals for nasogastric tube feeding are clearly documented in the patient's notes. • Explore cause of repeated NG/NJ tube removals. • Review the patient's medical notes to assess for previous surgery or contraindications to placement of a nasal retaining device. Use caution when placing the device in a recent history of broken nose or damaged septum. • Ensure all relevant investigations are undertaken (where appropriate) e.g. blood clotting tests, where a coagulopathy is suspected. • Ensure the person undertaking the procedure is competent to do so.	To ensure the use of the device is appropriate and in the best interests of the patient.	RCP (2010) NPSA (2011) NMC (2014) GMC (2013) NMC (2015)

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Potential contraindications for bedside insertion of a nasal tube retention device			
No	**Action**	**Rationale**	**Reference**

2.	Practitioners will have different levels of experience in placing a nasal tube retention device.
	Some contraindications, therefore, are relative and may be dictated by level of experience and/or speciality of the person inserting the device.
	
	Contra-indications may include:
	• Patient refusal
	• Persistent vomiting or violent coughing
	• Basal skull fracture
	• Nasal airway obstruction
	
	Caution should also be taken with patients who have:
	• Severe agitation
	• Deranged clotting
	• Any structural or mechanical deformity of the nose including:
	  ○ Nasal polyps
	  ○ Deviated nasal septum
	  ○ Nasal trauma/ulceration
	  ○ Previous nasal surgery
	  ○ Facial or anterior cranial fractures
		To minimise complications and ensure patient safety.	

	(Whilst it is in the practitioner's interest to be aware of the potential problems listed above placement of a nasal retention device may still be possible). Please note that this list is not exhaustive. Refer to your local guidelines or policy for clarity on contraindications relative to your area of practice and level of skill.		

Explaining the procedure to the patient			
No	**Action**	**Rationale**	**Reference**
3.	The purpose of the procedure and risks associated with it should be discussed with the patient before the procedure takes place. Where the patient has capacity to consent, their agreement must be obtained before the procedure is undertaken. Before giving consent the patient must be given time to consider their decision and the implications of placement or not upon their future treatment. Discussion and patient decision should be documented in the relevant patient notes. Where the patient demonstrates a lack of capacity a 'best interest decision' should be taken by the multidisciplinary team responsible for their medical care. This may necessitate further discussion with the wider multidisciplinary team and may require a best interests meeting involving the patient's next of kin (NOK), family (as appropriate), a named advocate or an independent mental capacity assessor (IMCA) as per local policy.	To demonstrate understanding and agreement with the procedure. To demonstrate compliance with current legislation and demonstrate wider consultation to ensure appropriate decision.	DH (2005) DH (2009a) DH (2010) RCP (2010)

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Practitioner preparation for the procedure			
No	**Action**	**Rationale**	**Reference**
4.	Gather all equipment prior to approaching the patient to undertake the procedure including: • Non sterile gloves and apron, and other PPE if appropriate. • A clean, clear working surface area. • A nasal tube retaining device. • A pair of sterile scissors. • Water based lubricant gel. • A receiver or vomit bowl. • Tissues. • Suction and Oxygen (as required).	To ensure timely uninterrupted insertion of the nasal retention device and promote a safe working environment.	NPSA (2005) DH (2009b) NPSA (2011) NICE (2006)

	Hygiene		
No	**Action**	**Rationale**	**Reference**
5.	Ensure universal precautions are used at all times. Wash hands before putting on gloves and apron – follow the five moments for hand hygiene. Prepare equipment on a clean surface area.	To adhere to local infection prevention and control policies.	WHO (2009)

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	Patient preparation for the procedure		
No	**Action**	**Rationale**	**Reference**
6.	Inform the patient about the procedure and their role within it including agreeing a signal to indicate a problem or their wish to stop the procedure (if able to do so) e.g. raising a hand. Ensure the patient is comfortable and head is well supported. **Note that a nasal tube retention device can be inserted before or after placement of a nasoenteral tube .** **If a nasoenteral tube is in situ**, note the external measurement of the tube at the nose and if NG, check whether gastric position has been confirmed. If the nasoenteral tube has been inserted previously check tube position against previously recorded tube insertions on bedside documentation. **If a nasoenteral tube has not yet been inserted:** • Clear the nose by asking the patient to blow their nose, if able to do so. If this is not possible consider cleaning the nasal area.	To reassure and where possible involve the patient. To ensure nasal passages are clear for smooth passage of the device.	Dougherty, Lister, West-Oram (2015)

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Preparing your equipment			
No	**Action**	**Rationale**	**Reference**
7.	Remove the retaining device from its packaging. If not attached to the retaining device place the retaining clip safely to one side. **Note:** Retaining devices from different manufacturers differ slightly in their design, so check manufacturer's guidance regarding the specific use of their product. Before using the device check that: • All component parts of the probes are correctly secured and functioning. • Check the guidewire/stylet is fully inserted into the probe (if appropriate). • Check the magnets at the end of both probes function before insertion by clicking them together and pulling them apart. • Ensure you have the right size retaining clip to fit the size of the nasoenteral tube that is going to be secured. • Lubricate both probes with water lubricant gel.	To ensure the device is complete and functioning.	

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Insertion Procedure			
No	**Action**	**Rationale**	**Reference**
8.	Check manufacturer's guidance – This usually accompanies the nasal tube retention device. Insert each probe individually into each nostril: • If an NG or NJ tube is in place insert the rigid probe into the nostril that contains the tube. If no tube is in situ place probes into either nostril. • Advance the probe to the measurement markers advised by the manufacturer. Do not use force if an obstruction is felt. • If unable to advance the rigid probe as far as required consider inserting into the other nostril. • Once rigid probe has been inserted correctly insert the second probe into the other nostril. • Adjust probes as per manufacturer's guidance Manipulate the probes until the magnets connect behind the vomer bone. Referring to specific manufacturers' guidance release the cotton tape from the flexible probe. Lubricate the length of cotton tape sitting directly outside the nasal passage. Gently withdraw the rigid probe, as advised by manufacturer, allowing the cotton tape to pass behind the vomer bone and protrude out of both nostrils.	Note that nasal retention devices are placed slightly differently according to the company that produces them. The attachments used to place the device may also be named differently. For the purpose of this document these attachments will be called probes and this section will provide general guidance only.	

	If a nasogastric/nasojejunal tube is in place: • Check tube has not become displaced. • If not in the correct position take action to check tube placement before securing retention device. • If tube is appropriately positioned secure the length of cotton tape around the tube and into the retention clip provided. Secure retention clip approximately 1cm from the nostril giving sufficient space to minimise patient discomfort and tissue damage. Check patient comfort. Ensure no part of the retention device remains in the patient. Remove any remaining probes from the cotton tape and knot tape beneath the secured retention clip for additional security. Trim any excess cotton tape, but allow sufficient tape to enable manipulation of the nasoenteral tube and retention device is required		Saunders & Osbourne (2015)

Disposing of equipment and aftercare			
No	**Action**	**Rationale**	**Reference**
9.	Make the patient comfortable before disposing of equipment safely as per local policy. Secure NG/NJ tube to cheek for patient comfort. Ensure the patient is in a position that is safe for the administration of feed, fluid or medication i.e. above a 30° angle.	To maintain patient comfort and safety.	DH (2013)

Documentation of the procedure			
No	**Action**	**Rationale**	**Reference**
10.	Fully document procedure in the appropriate patient records (written or electronic**).** **Documentation should include as a minimum:** • The date and time retention device was fitted. • The size and type of device used. • External cm markings at the nostril of the NG/NJ tube. • Details of the healthcare professional who inserted the retention device including name and designation. • How consent was obtained and patient agreement indicated. • Any best interest's decision made. • Any problems experienced during the procedure. **Also consider documenting:** • The patient's ability to tolerate the procedure. • The number of attempts undertaken to insert the retention device. • Any trauma caused as the result of the procedure.	To ensure patient safety and clear communication of care provided. To provide baseline information for any treatment interventions. To raise awareness of any trauma experienced during the procedure and therefore any impact on subsequent care interventions.	DH (2009a) RCP (2010) NPSA (2011)

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Ongoing Care of Nasal Retention Device

Risk of Displacement			
No	**Action**	**Rationale**	**Reference**
11.	The nasal tube retention device although shown to reduce the risk of accidental tube misplacement will not completely prevent NG/NJ tube displacement. Therefore tube position checks must still be made prior to the administration of feed, fluid or medication and documented on bedside documentation. For guidance of checking the position of nasogastric tubes refer to the NNNG Good Practice Guidelines - Safe Insertion and Ongoing Care of Nasogastric (NG) Feeding Tubes in Adults April 2016) and local policy.	To maintain patient safety.	Bechtold et al (2014), Brugnolli et al 2014, Seder et al 2010,

Hygiene and ongoing care of Nasal retention device			
No	**Action**	**Rationale**	**Reference**
12.	Clean and dry the cotton tape with warm water at least daily. This may be required more frequently if there are excessive nasal secretions. Check that the tape is not too tight or too loose. Keep NG/NJ tube secured to cheek. Observe the nasal mucosa at each tube intervention for signs of irritation or bleeding to check that neither the NG/NJ tube nor the retention device is causing pressure damage or excoriation externally or internally	To keep site clean and comfortable for the patient. To minimise the risk of developing tissue erosion.	Dougherty, Lister & West-Oram (2015)

	to the nostrils. Observe for purulent secretions from the nose or mouth which may be a symptom of internal pressure damage. Ensure checks are undertaken at least daily. Remember to provide good oral hygiene care. Clearly document findings in the patient notes.		

Removal of nasal tube retention device

No	Action	Rationale	Reference
13	The nasal tube retention device can remain in place until the NG/NJ is no longer required. To remove the nasal tube retention device: • Cut one side of the cotton tape (between the nose and the clip) NB: Ensure you do not cut the nasoenteric tube. • Gently pull the clip, cotton tape and nasoenteric feeding tube out simultaneously.	To ensure patient safety	

	• Once removed, clean the nasal area gently.		
Management of potential complications			
No	**Action**	**Rationale**	**Reference**
14.	The risk of complications can be minimised with careful monitoring and clear documentation. The main complications associated with the placement of a nasal tube retention device are: • **Epistaxis:** o This may be caused at the time of nasal tube retention placement or shortly afterwards. o Any trauma caused during insertion should be clearly documented in the patient's notes by the healthcare practitioner placing the retention device. o The managing medical/nursing teams should also be informed. • **Displacement**: o If not secured correctly the tube can be pulled away from the retention clip o If the cotton tape is not secured it may become loose and release when the tube is pulled. o If the tube is pulled excessively, stretching its length and reducing the lumen allowing it to slip through the fixation clip. o There is also a risk that the patient could dislodge the nasogastric tube from the small space between the retention clip and the nostril. • **Pressure damage** can result from the retention device being secured too tightly. Symptoms may		

	include: ○ Patient discomfort. ○ Tissue breakdown including ulceration. ○ Excessive nasal secretions. ○ To minimise risk ensure retention device is secured 1cm away from the nostril. ○ Check patient comfort. ○ Secure NG/NJ to check to reduce risk the tube being pulled. ○ Undertake checks as advised in 'Hygiene and ongoing care of retention device. • The NG/NJ tube can also be displaced through vomiting or violent coughing despite the retention device remaining secure • If any of these issues arise or the patient displays: - Unexplained respiratory symptoms. - Coughing, retching, vomiting of feed. • Stop using the tube immediately and seek urgent medical advice. • Check the position of NG/NJ using documented tube measurement markers, pH indicator strips or x-ray. • Alternatively where tube replacement is not an issue release the retention clip remove the tube and replace, securing the retention clip once tube position has been confirmed. Always check nasoenteric tube markings as per local policy. Having a retention device should not detract from using external markers for checking feeding tube position.		Bechtold et al (2014)

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The NNNG recognises that practice will vary according to individual risk assessments and local policy. However this good practice statement has been published in accordance with available evidence at the time of publication.

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Put out to NNNG members to review September 2016
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