Acacium Group

Nasopharyngeal Airway Management (Adult & Child)

Procedure Reference | SOP VENT 26

Version | V4.1

Procedure Name	Nasopharyngeal Airway Management (Adult & Child)
Purpose of Document	To ensure that the correct preparation, procedures & outcomes are achieved by implementing a consistent and systematic approach to the procedure of nasopharyngeal airway management and suction for adults and children
Target Audience	All Nurses & appropriately trained carers
Version	V4.1
Author	Karen Matthews-Shard
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Lead Director	Karen Matthews-Shard
Review Frequency	2 yearly or when clinical or operation guidelines change
Last Reviewed	June 2024
Next Review Date	June 2026
Equality Impact Assessment (EIA) Form	Acacium Group is committed to Equality, Diversity and Inclusion and in line with our values, we strive to ensure that everyone that is part of the Acacium community is not disadvantaged or discriminated against given their individual need or characteristics. To support this, an Equality Impact Assessment has been undertaken on this policy/procedure. This information is held centrally and can be requested from the Clinical Governance Team.
About Acacium Group	Details of all Acacium Group trading companies that this policy applies to are detailed within Appendix A

Document History			
Version	**Date**	**Changes made/comments**	**By whom**
V1	May 2017	Implementation of new SOP	KNF/VM
V1	May 2019	Biannual review	KMS/SJ/NG
V1.1	Mar 2020	Update to new Community Template	CCR/CC
V2	Jul 2020	2 Yearly Review	Clinical Advisory Group
V2.1	Oct 2020	Rebrand	CC
V3	Jul 2022	Review and updated	Clinical Advisory Group
V4	Jan 2024	Rebrand	Clinical Advisory Group
V4.1	Jun 2024	Reviewed and no update needed. Review date extended	Clinical Advisory Group

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1. Introduction

The Nasopharyngeal airway (NPA) is a flexible endotracheal tube that is designed to open a channel between the nostril and the nasopharynx – it can either be used in an emergency or for long-term use (European Resuscitation Council Guidelines for Resuscitation, 2010). The purpose of an NPA is to bypass upper airway obstruction at the level of the nose, nasopharynx or base of the tongue. A correctly placed NPA will sit just above the epiglottis, having separated the soft palate from the posterior wall of the oropharynx.

Change picture to one without safety pins as they are often not used and prevent/interfere with suctioning.

2. Aim

To provide safe and effective management of NPA in young people and adults, promoting client involvement and maximising comfort.

3. Who needs to be aware of this procedure

All Acacium Group care workers can manage the NPA and may undertake NPA suctioning, as long as they have received appropriate training and have been assessed as competent to deliver the required standards of care.

N.B: Inserting an NPA is to be carried out by a trained nurse only unless the care worker has completed client specific training and been signed off as competent to do so.

4. Management and care of the long term NPA

- It is important to maintain the correct position and patency of the NPA. Ensure position is maintained with correct securing of NPA. This is client specific so please follow client specific care plan.
- Skin integrity is vitally important when a NPA is in place and it's important to observe the area and document any changes.

Skin integrity:

- If NPA is secured with tape, change this daily, as required or as detailed within the clients care plan

- Observe pressure areas for redness or breakdown especially around the nostrils – document and report to the nurse if there are any changes
- Clean the nostrils as required to prevent excoriation.

5. NPA suction - hazards/complications

NPA suction should be used cautiously if the following are present:

- Nasal bleeding
- Acute head, neck or facial injury
- Bronchospasm (spasm of the bronchus)
- Bleeding disorder
- Recent oesophageal surgery
- Cancer in respiratory tract
- Pulmonary oedema – suction does not help, it may actually increase the volume and remove surfactant.

Potential complications of the procedure:

- Airway mucosa damage or other mechanical trauma caused by passage of catheter, pull of vacuum or poor technique
- Introduction of infection
- Low oxygen levels/hypoxia
- Cardiac rhythm irregularities/arrest
- Slow pulse
- Respiratory distress
- Respiratory arrest
- Uncontrolled coughing
- Gagging/vomiting and risk of aspiration
- Discomfort/pain
- Pneumothorax
- Constriction or spasm of the bronchus
- Changes in intracranial pressure
- Hypertension/hypotension
- Bacterial infection
- Vaso-vagal response (children)
- Client anxiety

6. Pre or post oxygenation

In some circumstances, there may be a need to oxygenate the client before and/or after the suction.

7. Pre-oxygenation indications/post oxygenation indications

- Clients who demonstrate oxygen desaturation during suction, as confirmed by pulse oximetry.

Clients receiving continuous oxygen therapy - an increase in their usual dose of oxygen may be indicated if confirmed by 'clinical assessment'.

NB: If following clinical assessment suction is deemed to be indicated on an ongoing basis and oxygen is required, it will be necessary for the clients nominated nurse to liaise with the GP re oxygen provision if this is not already available.

8. Pre-oxygenation contraindications/post oxygenation contraindications

- Extreme care must be taken when administering oxygen to clients whose ventilatory effort stems from hypoxia
- Where a client has demonstrated tolerance of the suction procedure with no adverse effect.

9. Consent

Valid consent should be gained before commencing the procedure. Risks and benefits to the procedure should be explained along with the risks of not having the procedure.

Acacium Group staff should be aware that carers and relatives do not have the right to give consent on behalf of the client, however staff may be able to act as long as they are able to demonstrate that any actions are in the best interest of the client. There may be a representative legally appointed to provide consent on the client's behalf.

Please read the Acacium Group policy on Consent.

10. Client and relatives/carers involvement

Where possible, relatives and carers should be fully consulted and informed about the care required and involved. It is important to allow family members to feel involved with the care provision and in time family members may be taught how to undertake management and suction for the clients NPA.

11. Client information

It is expected that full information will already have been made available to the client, however the Acacium Group worker may provide information as required.

12. Infection prevention and control

Respiratory infections are common for clients with an NPA airway. It is important that a clean environment is maintained.

Minimising the risk of transferring infection to other clients, client's family and Acacium Group staff is very important. Care workers must always follow the Acacium Group infection prevention and control policy and the SOP for standard precautions in line with current guidelines on Aerosol Generating Procedures (AGP).

Manufacturer's instructions for the cleaning of equipment must be followed.

13. Replenishment of supplies

Ensure that there are adequate supplies in the community setting to respond to an unexpected airway change and increase in suction requirements.

Please refer to the client's care plan for the stock ordering process.

14. Equipment for NP Airway suction

- Water soluble lubricant for (nasal route)
- Nursing notes and care plan
- Appropriate PPE in line with current guidance
- Clinical waste bag
- Oxygen supply (if indicated and supplied)
- Bowl of clean water
- Suction machine
- Suction tubing
- Suction catheters – the correct size for client with suction control as documented in the clients care plan.
    - Adults size 10 / 12 / 14 fg
    - Child size 5 / 6 / 8 / 10 fg

NB: The size of suction catheter required will be documented in the Clients care plan. The size of the catheter used must not exceed ½ the diameter of the airway.

15. Procedure – NPA suction adults

	Action	Rationale
1.	Assess need for NPA suctioning, encourage clearing of airways by other methods first	NPA suctioning is an invasive procedure and should only be undertaken when other procedures are ineffective
2.	Ensure that the unit is in working order and charged if using it via the battery.	To prevent the unit from losing power when in use.
3.	Explain the procedure to the client and gain Consent	Client consent must be obtained in line with Legal requirements.
4.	Put on appropriate PPE as current guidelines	To prevent the transfer of infection and contamination of the health professional.
5.	Select the catheter size to be used – please check clients care plan **N.B.** - Suction catheters are usually double the internal diameter of the NPA (e.g. an NPA size 4.0 will use a suction catheter size 8.0) – but this may vary between clients so care plans must be checked.	A suction catheter that is too big will cause trauma.
6.	Select the vacuum pressure to be used. The vacuum pressure required will be documented in the client's individual care plan.	The higher the pressure used the more damage to tissues. NB: Use the lowest level of suction which is effective in clearing secretions especially when they are loose. With thicker secretions a maximum pressure of 200mmHg (26Kpa) is used.
6.	Position client suitably – on side lying if vomiting is a possibility, otherwise in sitting or lying with head extended.	The correct positioning eases the process for the client and the professional and reduces the risk of aspiration.
7.	Pre-oxygenate if indicated and stated in the care plan. Attached pulse oximeter if available.	To ensure optimum respiratory health during the procedure.

8.	Wash hands. Put on gloves or glove on the dominant hand. Ensure sterile glove is worn to hold the catheter.	To minimise introducing infection into the client respiratory tract.
9.	Connect catheter to appliance. Maintain sterility of glove and catheter whilst removing them from packaging and lubricate tip with water soluble gel.	To maintain environment to minimise the transfer of infection and to enable eased of insertion of catheter.
10.	Switch suction machine on	
11.	With suction port open, slide catheter gently into the NPA, aiming toward the occiput. If resistance is felt at the back of the pharynx, rotate the catheter slowly between fingers and ease very gently forwards. **N.B. -** The length of the tube should be documented in the care plan. The suction catheter should remain within the tube and not to go further.	To ease the insertion of the catheter.
12.	Ensure the head is tilted back where possible; insert the catheter on inspiration, during speech or a cough. If the client swallows, the catheter is likely to be in the oesophagus, in which case, withdraw the catheter slightly and proceed again.	To aid the passage of the catheter. To ensure the catheter goes into the respiratory tract and not gastrointestinal.
13.	When the catheter stops withdraw slightly and apply suction pressure.	Preventing trauma to the airway.
14.	Bring the catheter up slowly and smoothly. Avoid catheter rotation (which is unnecessary with multiple eye catheters). Avoid sudden intermittent suction (this may result in mucosal damage and reduces the effectiveness by reducing the flow rate). If the suction pressure rises unacceptably – a smooth and partial removal of the thumb from the control port of the catheter should be used to reduce the pressure gently.	To prevent trauma to the airway and allow for optimum secretion removal
15.	Assess need for further suctioning, allow 20-30 seconds before re-inserting a new catheter	Evaluate the effectiveness of suction Allows for re-oxygenation
16.	Remove the gloves over the catheter and dispose of into a clinical waste bag.	To avoid contaminating oneself with used material.
17.	Apply oxygen to the client (If indicated) and comfort them.	To settle the client.
18.	Suction clean, cold water through the system.	To clean the debris into the suction collection bottle.
19.	Empty the collection bottle and dispose of contents down the toilet and clean suction unit.	Ready for use next time.

20.	Wash hands.	**To reduce the risk of cross infection**
21.	Document all care given in notes	To maintain continuity of care and allow clear communication between care workers
22.	**Please note** Each suction catheter is a single use only item and should therefore be disposed of and a new sterile catheter used for each insertion. The duration of the suction procedure should not exceed 15 seconds. Suction should not be performed on a routine basis unless documented in the clients care plan.	To minimise the risk of introducing infection. In order to minimise the possibility of causing hypoxaemia (low oxygen levels in the blood).

Procedure – NPA suction children

	Action	Rationale
1.	Assess need for NPA suctioning, encourage clearing of airways by other methods first	NPA suctioning is an invasive procedure and should only be undertaken when other procedures are ineffective
2.	Ensure that the unit is in working order and charged if using it via the battery.	To prevent the unit from losing power when in use.
3.	Explain the procedure to the client and gain consent.	Client consent must be obtained in line with Legal requirements.
4.	Put on appropriate PPE as per current guidelines	To prevent the transfer of infection and contamination of the health professional.
5.	Select the catheter size to be used – please check clients care plan. N.B. - Suction catheters are usually double the internal diameter of the NPA (e.g. an NPA size 4.0 will use a suction catheter size 8.0) – but this may vary between clients so care plans must be checked.	A suction catheter that is too big will cause trauma.
6.	Select the vacuum pressure to be used. The vacuum pressure required will be documented in the client's individual care plan.	The higher the pressure used the more damage to tissues. NB: Use the lowest level of suction which is effective in clearing secretions especially when they are loose.
6.	Position client suitably – on side lying if vomiting is a possibility, otherwise in sitting or lying with head extended.	The correct positioning eases the process for the client and the professional and reduces the risk of aspiration.
7.	Pre-oxygenate if indicated and prescribed. Attached pulse oximeter if available.	To ensure optimum respiratory health during the procedure.
8.	Wash hands Put on gloves or glove on the dominant hand. Ensure sterile glove is worn to hold the catheter.	To minimise introducing infection into the client respiratory tract.
9.	Connect catheter to appliance. Maintain sterility of glove and catheter whilst removing them from packaging and lubricate tip with water soluble gel.	To maintain environment to minimise the transfer of infection and to enable ease of insertion of catheter.

10.	Switch suction machine on.	
11.	With suction port open, slide catheter gently into the NPA, aiming toward the occiput. If resistance is felt at the back of the pharynx, rotate the catheter slowly between fingers and ease very gently forwards. **N.B.** - The length of the tube should be documented in the care plan. The suction catheter should remain within the tube and not to go further.	To ease the insertion of the catheter.
12.	Ensure the head is tilted back; insert the catheter on inspiration, during speech or a cough. If the client swallows, the catheter is likely to be in the oesophagus, in which case, withdraw the catheter slightly and proceed again.	To aid the passage of the catheter. To ensure the catheter goes into the respiratory tract and not gastrointestinal.
13.	When the catheter stops withdraw slightly and apply suction pressure.	Preventing trauma to the airway
14.	Bring the catheter up slowly and smoothly. Avoid catheter rotation (which is unnecessary with multiple eye catheters). Avoid sudden intermittent suction (this may result in mucosal damage and reduces the effectiveness by reducing the flow rate). If the suction pressure rises unacceptably – a smooth and partial removal of the thumb from the control port of the catheter should be used to reduce the pressure gently.	Preventing trauma to the airway to the airway and allow for optimum secretion removal
15.	Assess need for further suctioning, allow 20-30 seconds before re-inserting a new catheter	Evaluate the effectiveness of suction Allows for re-oxygenation
16.	Remove the gloves over the catheter and dispose of into a clinical waste bag.	To avoid contaminating oneself with used material.
17.	Apply oxygen to the client (If indicated) and comfort them.	To settle the client.
18.	Suction clean, cold water through the system.	To clean the debris into the suction collection bottle.
19.	Empty the collection bottle and dispose of contents down the toilet and clean suction unit.	Ready for use next time.
20.	Wash hands.	**To reduce the risk of cross infection**
21.	Document all care given in notes.	To maintain continuity of care and allow clear communication between care workers.
22.	**Please note** Each suction catheter is a single use only item and should therefore be disposed of and a new sterile catheter used for each insertion.	To minimise the risk of introducing infection. In order to minimise the possibility of causing hypoxaemia (low oxygen levels in the blood).

	The duration of the suction procedure should not exceed 5-10 seconds for infants, 15 seconds for older children. Suction should not be performed on a routine basis unless documented in the clients care plan.	

16. Associated Policies / SOPs

Policies
CLIN 06 Consent Policy
CLIN 10 Resuscitation Policy

SOPs
SOP VENT 01 Tracheostomy Dressing Change (Adult & Child)
SOP VENT 02 Tracheostomy Care General Guidelines
SOP VENT 03 Humidification of a Client's Tracheostomy
SOP VENT 04 Tracheal Suctioning (Adult & Child)
SOP VENT 05 Tracheostomy Tube Care (Adult)
SOP VENT 06 Tracheostomy Tube Change (Adult)
SOP VENT 07 Tracheostomy Tube Change (Child)
SOP VENT 08 Administration of a Nebuliser through a Ventilator Circuit
SOP VENT 09 Assembling a Ventilator Circuit
SOP VENT 10 Cleaning the Ventilator Equipment
SOP VENT 11 Safe Management of a Ventilated Service User During Outings
SOP VENT 12 Safe Management of a Ventilated Service User During Power Cuts
SOP VENT 13 Safe Use of Battery Packs
SOP VENT 14 Assisted Airway Maintenance and Cough (Adult)
SOP VENT 15 BiPAP
SOP VENT 16 Oral and Nasal Suctioning
SOP VENT 18 CPAP
SOP VENT 19 Mechanical Cough Assist
SOP VENT 20 Changing Tracheostomy Cotton Ties (Child)
SOP VENT 21 Changing Tracheostomy Velcro Tapes (Child)
SOP VENT 22 Phrenic Nerve Pacing
SOP VENT 23 Laryngectomy Care General Guidelines
SOP VENT 24 Emergency Tracheostomy Tube Change (Adult)
SOP VENT 25 Emergency Tracheostomy Tube Change (Child)
SOP VENT 27 Nebuliser Therapy

17. References

- European Resuscitation Council Guidelines for Resuscitation (2015 I.K. Maconochie et al. / Resuscitation 95 (2015) 223–248GOSH website – NPA
- Dougherty L and Lister S (Editors), Seventh Edition, 2008. The Royal Marsden Hospital Manual of Clinical Nursing Procedures, Wiley
- Guidelines for nasopharyngeal suction of a child or young adult. Association of charted physiotherapists, November 2015 http://apcp.csp.org.uk
- Nasopharyngeal suction SOP North Devon Healthcare Trust, April 2019
- Oxford Medical Education - How to use a nasopharyngeal airway
- The nasopharyngeal airway: dispelling myths and establishing the facts BMJ - Emergency Medicine Journal 2005

Appendix A: About Acacium Group

Acacium Group consists of a number of trading companies, each providing services within core niche areas of the health and social care industries. Therefore, as this document is a Group Policy, the Policy herein applies to all trading companies detailed below:

pulse Part of Acacium Group	Thornbury Nursing Services Part of Acacium Group
Thornbury Community Services Part of Acacium Group	Scottish Nursing Guild Part of Acacium Group