Policies & Procedures
Title: AIRWAY - NASOPHARYNGEAL: INSERTION OF: MAINTENANCE, SUCTION, REMOVAL
I.D. Number: 1064

Authorization
[X] SHR Nursing Practice Committee

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1. PURPOSE

1.1 To safely and effectively use a Nasopharyngeal Airway (NPA).

2. POLICY

2.1 The Registered Nurse (RN), Registered Psychiatric Nurse (RPN), Graduate Nurse (GN), Graduate Psychiatric Nurse (GPN) will insert, maintain, remove and suction a nasopharyngeal airway (NPA).

2.2 The Licensed Practical Nurse (LPN) and Graduate Licensed Practical Nurse (GLPN) may only perform suctioning and maintenance of a NPA.

2.3 The NPA may be inserted to establish and assist in maintaining a patent airway. A NPA may be better tolerated than an oral airway in a patient with fluctuating levels of consciousness.

2.4 The NPA will not be inserted in patients with suspected or confirmed head or facial trauma/fracture.

2.5 Following head or facial surgery, the appropriate surgeon should be consulted before inserting a NPA.

Note: Following orthognathic (jaw surgery), NPAs may be inserted without first consulting the surgeon.

3. PROCEDURE

3.1 Equipment

- Nasopharyngeal airway of appropriate size
- Water soluble lubricant
- Clean gloves
- Optional: suction equipment, bag-valve-mask device
3.2 Estimate the appropriate size of airway by laying the tube on the side of the patient's face parallel to the teeth. The curve of the airway should follow the curve of the tongue when measuring. Choose an airway that extends from the nares to the angle of the jaw. The airway diameter changes with the length of the tube.

Recommended sizes:
- Large adult – 8-9 mm,
- Medium adult – 7-8,
- Small adult – 6-7 mm.

**Note:** Too short an airway will be ineffective. Too long an airway may obstruct the larynx, and may cause laryngospasm, retching, and vomiting.

3.3 **Adult**

3.3.1 To determine nostril patency, feel for air movement through one nostril while occluding the other with external finger pressure.

3.3.2 Ensure head of bed is at least 30 degrees to assist in breathing.

3.3.3 Lubricate the tip of the airway with the water-soluble lubricant to ease insertion.

3.3.4 Slightly extend the patient's neck (chin lift or jaw thrust maneuver) and raise the end of the patient's nose.

3.3.5 Gently insert the airway into the patient's nostril. Position it in such a way that the beveled opening of the airway is facing the nasal septum. Guide it medially and downward. **DO NOT FORCE THE TUBE.** Allow the tube to follow the natural curve of the patient's airway. If resistance is met, pull the tube back slightly, reposition and guide it forward again. The right nostril may be easier to insert than the left.

**Note:** When properly inserted, the flange should fit snugly against the opening of the nare. The distal tip rests in the posterior pharynx. If the patient gags or coughs, the NPA may be too long. Remove (see 3.8) and insert a shorter one.

3.3.6 To verify tube's placement, look for chest movement, listen for breath sounds, and feel for air movement over the tube's flange.
3.3.7 Provide humidification as required.

3.3.8 If patient removes NPA, do not reinsert until it is needed again due to the trauma to the nares.

**Note:** Following orthognathic (jaw surgery), nursing staff may consult Respiratory Therapy if there are any airway concerns prior to / following removal.

3.4 **Infant or Child:** This type of airway is not commonly used as its small size occludes easily with secretions. It may traumatize enlarged adenoids causing severe epitaxis and/or compression of nasopharyngeal airway.

3.5 Assess airway patency and breathing effectiveness by noting:

- Bilateral air entry
- Chest rise and fall
- Rate and depth of respirations
- Use of accessory muscles
- Skin color
- SpO₂

3.6 **Maintenance**

3.6.1 Always keep an extra airway at the bedside to ensure immediate reinsertion if the airway becomes occluded.

3.6.2 Change the airway daily alternating nostrils if possible to prevent infection (especially sinusitis), pressure necrosis, and occlusion.

3.6.3 Perform mouth care and assess external nares for skin breakdown q4h and pm.

3.6.4 Maintain a head tilt/chin lift or jaw thrust as needed.

3.7 **Suctioning**

3.7.1 Equipment

- Clean gloves
- Suction catheter
- Suction set-up (regulator, canister, liner, tubing)
- Sterile normal saline

3.7.2 Set the suction gauge at 80 – 120 mmHg.

3.7.3 Don PPE.

3.7.4 Choose a suction catheter about one half the diameter of the airway and lubricate the tip with normal saline.

3.7.5 Advance the catheter without applying suction about one inch beyond the tip of the airway or less if the patient begins to cough.

**Note:** Suctioning further than this is a considered a sterile procedure to decrease the incidence of hospital-acquired pneumonia.

**Note:** An assistant may be necessary to stabilize the airway during suctioning.
3.7.6 Withdraw the catheter while applying suction for no more than 10 seconds.

3.7.7 Rinse the suction catheter with sterile normal saline to clear secretions from the catheter. Assess respiratory status and repeat as necessary.

3.7.8 Discard the suction catheter and used normal saline after use.

3.8 **Removal**

3.8.1 While the patient is exhaling, hold the flange and pull out the nasopharyngeal airway in one smooth downward motion.

**Note:** Withdrawal during expiration prevents aspiration.

3.8.2 If resistance is felt, do not force. Apply lubricant around the tube and nostril, gently rotate the tube until it is free and then remove.

3.8.3 Gently clean the nostril with sterile normal saline after removal and examine for signs of swelling, injury or erosion.

3.9 **Documentation**

- Date and time of initial insertion
- Respiratory assessment before and following insertion as per 3.5
- Date and time of removal of airway
- Adverse reactions to procedure and associated nursing interventions
- Size of airway inserted
- Condition of patient’s nares / mucous membranes
- Patient tolerance of procedure

4. **REFERENCES**


