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Nasotracheal Suction  Formulated: 11/03	<b>Effective:</b> 12/3/03 <b>Revised:</b> 08/21/23 <b>Reviewed:</b> 08/21/23

## Nasotracheal Suctioning (NTS)

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**Purpose** To standardize the use of Nasotracheal suctioning (NTS), a component of bronchial hygiene therapy.

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**Scope** NTS is intended to remove accumulated secretions, blood, vomitus and other foreign material from the trachea that cannot be removed by the patient’s cough or other less invasive procedures. NTS has been used to avoid intubation that was solely intended for the removal of secretions.

NTS refers to the insertion of a suction catheter through the nasal passage and pharynx into the trachea in order to aspirate accumulated secretions or foreign material.

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**Audience** All licensed respiratory therapists in the Respiratory Care Services Department

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**Physician’s Order** Order for NTS

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**Indications** The need to maintain a patient airway and remove secretions or foreign material from the trachea in the presence of the inability to clear secretions, audible evidence of secretions in the large/central airways that persist in spite of patient’s best cough effort.

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**Possible Hazards/Complications**

- Mechanical trauma
- Hypoxia/hypoxemia
- Cardiac dysrhythmias/arrest
- Bradycardia
- Increase in blood pressure
- Hypotension
- Respiratory arrest
- Uncontrolled coughing
- Gagging/vomiting
- Laryngospasm
- Bronchoconstriction/bronchospasm
- Pain
- Nosocomial infection
- Atelectasis
- Misdirection of Catheter
- Increased ICP

**Procedure**

Step	Action
1	Verify Physicians order and identify patient using two identifiers.
2	Assess patient and patient airway; determine preferred nare
3	Pre-oxygenate patient for at least 30 seconds
4	Adjust suction to appropriate level; lubricate nasopharyngeal airway with water-soluble lubricant  <i>*Can use nasal trumpet to help decrease risk of mucosal trauma</i>
5	Remove pillow and position patient's head
6	Put on sterile gloves and maintain clean technique throughout procedure
7	Attach catheter to suction source
8	Reassure patient; removes oxygen source
9	Insert catheter into the nare
10	Pass catheter into the oropharynx and into trachea

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11	Advance catheter until resistance is met (without suction applied)
12	Apply suction and rotate/withdraw catheter for a maximum of 20 seconds
13	Frequently assess patient for oxygenation status, including pulse oximetry
14	Re-oxygenate patient for at least 1 minute
15	Reassess patient and repeat if necessary
16	Documentation of procedure should be recorded in EPIC. Document per RCS policy # 7.1.1.

**Discontinuation** Patients will be evaluated after every treatment. Based on the assessment, the therapist will make recommendations for changes in therapy or discontinuance as needed.

**References**

AARC Clinical Practice Guidelines: “Nasotracheal Suctioning,”  
Respiratory Care 1992; 37:898-901

Butler, Thomas J., Close, Janice R., Close, Robert J. Laboratory Exercises

for Competency in Respiratory Care. 1998:255.