Name of Policy:	**Endo-Nasotracheal Suction**
Policy Number:	3364-136-04-04
Department:	Pulmonary Services
Approving Officer:	Senior Hospital Administrator
Responsible Agent:	Director, Pulmonary Services
Scope:	The University of Toledo Medical Center Pulmonary Services Department

THE UNIVERSITY OF TOLEDO MEDICAL CENTER

Effective Date: 08/10/2023
Initial Effective Date: 12/1/2004

_____ New policy proposal
_____ Major revision of existing policy
__x__ Minor/technical revision of existing policy
_____ Reaffirmation of existing policy

(A) Policy Statement

Endotracheal/Nasotracheal suction will be performed upon physician order, request, or when indicated from patient's inability to adequately cough and expectorate mucosal secretions. The Respiratory Care Practitioner will utilize proper sterile technique with utmost attention focusing on patient safety and tolerance. This procedure will be followed according to the procedural guidelines.

(B) Purpose of Policy

To ensure that safe and proper technique are used when performing endotracheal or nasotracheal suctioning procedures.

- Indications: for endotracheal/nasotracheal suctioning are when the patient has audible secretions in his/her upper airways, is showing signs of inadequate ventilation due to secretion build-up, and routine airway maintenance.
- Goals: of suctioning are to maintain a patent airway by removing secretions, which helps to facilitate ventilation.
- Contraindications: lack of secretions and patients who are hemodynamically unstable.
- Hazards of suctioning include: hypoxia, deterioration of hemodynamic status, tracheitis, damage to mucosal membrane, occlusion of airway with the catheter, and sudden death.
- If obtaining a Lukens Trap specimen for the laboratory, the specimen must be labeled in front of the patient, in the patient's room where the specimen was obtained. The labels must be correctly identified against the patient's ID bracelet, using the two (2) patient identifiers. If using a written requisition, the labels for this must also be correctly identified against the patient's ID bracelet. This must be an active procedure, not passive. The therapist must do this procedure thoroughly and make sure the identification sticker matches the patient's ID bracelet. Refer to Hospital Administration policy 3364-100-01-16.

(C) Procedure

1. The following procedure shall be used when performing endotracheal or tracheostomy suctioning:
   a. As with all patient oriented or equipment procedures performed by respiratory care personnel, special attention should be given to aseptic technique.
   b. Assemble equipment; manual resuscitator with oxygen supply and reservoir, suction catheter kit or closed suction catheter, sterile normal saline, suction source (-60 to -80 cmH2O for neonates, -80 to -100 cmH2O for pediatrics and -100 to -120 cmH2O for adults).
   c. Correctly verify patient, according to policy 3364-136-01-11. Explain to patient the procedure and its purpose, and then position the patient, preferably in a semi-Fowler's position.

d. Open suction catheter packet using sterile technique. Put sterile gloves on both hands. Grasp catheter with the hand that will remain sterile. Connect catheter to suction supply tubing maintaining sterile technique.
e. With non-sterile hand, remove the ETT vent adaptor, T-piece or trach collar.
f. Hyperoxygenate the patient with manual resuscitator, or with the ventilator. Ventilate patient for about 10 breathes or fifteen seconds with 100% oxygen. (Care is essential in this maneuver. Lack of attention to assisting or controlling ventilation may asphyxiate the patient, and excessive pressures or volumes generated by the resuscitator may produce a pneumothorax. Every attempt should be made to synchronize the manual ventilations with the patient's spontaneous ventilation).
g. Disconnect the manual resuscitator from the patient. **The use of sterile 0.9% sodium chloride (normal saline), without preservatives, for instillation into the endotracheal tube or trach should be used only for thick inspissated sputum (for infants use 0.5 to 1.0 mls normal saline, for children use 1 to 3 mls normal saline, for adults use 2 to 5 mls normal saline). Use only after suctioning once to determine thickness of secretions.** (Repeat step 1.f).
h. In some cases, it is necessary for two people to do this procedure to ensure optimal patient safety. This judgment must be made by the person(s) performing the procedure. When two people perform the procedure, all irrelevant bedside conversation should be eliminated.
   - Hold the catheter so that the natural curve is aligned with the artificial airway. Without applying suction, quickly and gently insert the catheter into the airway until slight obstruction is felt. Withdraw the catheter 0.5 centimeter and intermittently apply suction while rotating the catheter between the thumb and forefinger. Never suction for more than five seconds. Repeat installation and suctioning as required.
   - Monitor the patient's color, heart rate, respiratory rate and hemodynamic values throughout the procedure. Patient's response to suctioning should be noted. If the patient's response to suctioning is adverse, it may be necessary to discontinue suctioning and ventilate the patient. If adverse reactions persist, contact the patient's nurse and/or physician, and document appropriately (according to policy #3364-136-03-06).
i. Return the patient to the original FiO2 two to three minutes after the procedure.
j. Suction oropharynx with oral suction device, dedicated for that purpose. Suction nasopharynx with another sterile catheter, following C.3 below.
k. Record on the chart; color, consistency, odor, and amount of secretions, as well as any change in the patient or secretions from previous procedures.

2. The following procedure will be used with the **adult closed suction system**.
   a. As with all patient oriented or equipment procedures performed by respiratory care personnel, special attention should be given to aseptic technique. The catheter will be changed PRN.
   b. Don examination gloves.
   c. Increase ventilator FiO2 to 1.00 for two (2) minutes.
   d. Connect suction tubing to the suction catheter (it may already be connected). Turn off oral suction device to get maximum suction through system.
   e. Turn thumb control valve to the OPEN position. Assure the suction gauge pressure is as recommended in 1.b above.
   f. Instillation of normal saline is not recommended as best practice except for emergent situations such as mucus plugging in an artificial airway.
   g. Advance catheter into airway until resistance is met and then withdraw the catheter 0.5 cm.

h. Apply suction while withdrawing the catheter within 5 seconds.
i. Repeat suction as necessary, providing that the patient's hemodynamic status is stable.
   - Monitor the patient's color, heart rate, respiratory rate and hemodynamic values throughout the procedure. Patient response to suctioning should also be noted. If the patient's response to suctioning is adverse, it may be necessary to discontinue suctioning and ventilate the patient. If adverse reactions persist, contact the patient's nurse and/or physician, and document appropriately (according to policy #3364-136-03-06).
j. Withdraw the catheter and suction 5ml of saline through the catheter using the flush port.
k. Return thumb control valve to the CLOSED position.
l. Suction oropharynx with dedicated oral suction equipment.
m. Return FiO2 to the proper setting.
n. Document procedure in the electronic medical record (EMR).

3. The following procedure will be used for **nasotracheal** suctioning.
   a. As with all patient oriented or equipment procedures performed by respiratory care personnel, special attention should be given to aseptic technique.
   b. Assemble equipment as in 1.d above.
   c. Verify patient according to policy 3364-136-01-11. Explain to patient the procedure and its purpose. Appropriately position patient to sniffing position for infants or slightly more hyper-extended for older children and adults.
   d. Open suction catheter packet using sterile technique. Put sterile gloves on both hands. Grasp catheter with the hand that will remain sterile. Connect catheter to suction supply tubing maintaining sterile technique.
   e. Lubricate the catheter tip with a water-soluble jelly to facilitate access into the trachea, and to cause minimal trauma.
   f. Hold the catheter so that its natural curve is aligned with the patient's trachea. Gently insert the catheter into one of the patients' nares. Enter the trachea on inspiration and apply suction only during withdrawal of catheter for no longer than 5 seconds.
   g. Repeat steps 3.e and 3.f as necessary and as tolerated by patient.
   h. Monitor the patient's color, heart rate, respiratory rate and hemodynamic values throughout the procedure. Patient response to suctioning should also be noted.
      - If the patient's response to suctioning is adverse, it may be necessary to discontinue suctioning and ventilate the patient. If adverse reactions persist, contact the patient's nurse and/or physician, and document appropriately.
   i. Discard entire suction kit and wash hands thoroughly.
   j. Return patient to pre-suctioning FiO2 status.
   k. Document procedure in the EMR.

Approved by:		**Review/Revision Date:**
		08/31/1999
		08/22/2001
/s/	8/14/2023	04/07/2004
Michael Taylor	Date	03/28/2007
Director, Pulmonary Services		04/13/2009
		03/09/2011
		08/08/2012
/s/	8/14/2023	08/01/2014
Russell Smith	Date	08/01/2017
Senior Hospital Administrator		09/01/2020
		08/10/2023
Review/Revision Completed By:		
Director, Pulmonary Services		**Next Review Date:** 08/10/2026
Policies Superseded by This Policy:		