**Segmental Bronchial Drainage** Name of Policy: THE UNIVERSITY OF TOLEDO MEDICAL CENTER **Policy Number:** 3364-136-04-07 **Department:** Respiratory Care **Approving Officer:** AVP Patient Care Services/ Chief Nursing Officer **Responsible Agent:** Director, Respiratory Care Effective Date: August 1, 2019 Scope: The University of Toledo Medical Center Respiratory Care Department Initial Effective Date: July 1, 1979 New policy proposal Minor/technical revision of existing policy Major revision of existing policy Reaffirmation of existing policy

## (A) Policy Statement

The Department of Respiratory Care will provide different modes of therapies, designed to promote clearance of pulmonary secretions. These include Segmental Bronchial Drainage (SBD), The Vest Airway Clearance System, Vibratory PEP therapy and Intrapulmonary Percussive therapy. All modes are either directly prescribed by a physician or initiated when RT Protocols are ordered (as outlined in policy 3364-136-04-12).

# B) Purpose of Policy

To ensure proper and safe bronchial drainage and pulmonary toilet hygiene resulting from the effective administration of positioning, percussion, and vibration therapies.

**Indications:** include patients with bronchitis, pneumonia, cystic fibrosis, or any other condition requiring the removal of secretions or foreign bodies from the respiratory tract.

**Goals:** to assist the patient in maintaining good bronchial hygiene in order to improve alveolar minute volume by mobilizing and removing secretions.

**Contraindications:** include, but are not limited to, lack of patient tolerance, instable hemodynamic status, spinal surgery, hemoptysis, untreated pneumothorax, flail chest, pulmonary embolism and aneurysms.

**Hazards:** include, but are not limited to, trauma of surgical wounds, over mobilization of secretions, increased ICP and hypoxia.

## (C) Procedure for Segmental Bronchial Drainage

- 1. After verification of the physician's order, the practitioner will review the patient's chart for information regarding which segments/lobes of the patient's lungs require bronchial drainage.
- 2. The practitioner then appropriately identifies the patient and informs the patient about the purpose and procedure of the treatment.
- 3. Aseptic technique should be maintained at all times. The practitioner should then assess the patient's respiratory status, including respiratory rate, pulse, and breath sounds by auscultation.
- 4. The practitioner should properly position the patient according to the segments/lobes of the patient's lungs which are to be drained.
- 5. Manual or mechanical percussion/vibration will be performed as tolerated by the patient.
- 6. The patient will be positioned, and percussion/vibration will be performed by the practitioner, for

all positions as indicated and as tolerated.

7. Position the patient in a semi-Fowler's position, and encourage proper coughing by the patient, to promote the mobilization and expectoration of secretions; tracheal suction will be performed as indicated.

#### (D) The Vest Airway Clearance System

- 1. Consists of an Air Pulse Generator and a disposable vest, that when properly connected, supplies pulsations to the chest wall.
- 2. Refer to the user manual for complete instructions on using The Vest.
- 3. Absolute contraindications include: head and/or neck injury that has not yet been stabilized and active hemorrhage with hemodynamic instability. Please refer to the user manual for relative contraindications.

#### (E) Acapella Vibratory PEP Therapy

- 1. Combines the benefits of positive expiratory pressure and airway vibrations to mobilize pulmonary secretions.
- 2. Facilitates opening of airways; the practitioner is able to adjust the frequency and flow resistance based on the patient's response to therapy.
- 3. Refer to product enclosure for features and more specific use instructions.
- **(F)** Intrapulmonary Percussive Therapy (MetaNeb)
  - 1. A therapeutic device that utilizes a systematic approach to enhance normal mucous clearance and resolve or prevent patchy atelectasis.
  - 2. Refer to policy 3364-136-04-09 for indications and appropriate setup and use.
- **(G)** After the treatment, charting will be done in the RT *Assessment and RT Treatment* section of the EMR.
- **(H)** Adverse reactions to therapy:
  - a. The patient should be closely monitored for the occurrence of any increased shortness of breath, nausea/vomiting, dizziness, bronchospasms, cyanosis, chest pain, tachycardia, agitation, or any other undesirable side effects.
  - b. If the patient's response to therapy is adverse, it may be necessary to modify or terminate therapy, monitor the patient for further change in symptoms, contact the patient's nurse and/or physician, and document appropriately (according to policy 3364-136-03-07 of this manual).

Approved by:		Review/Revision Date:	
		05/29/1992	02/10/2011
		05/06/1993	08/09/2012
/s/		08/01/1996	12/01/2015
Michael J. Taylor	Date	08/31/1999	08/01/2019
Director, Respiratory Care		07/15/2001	
		11/30/2004	
		03/06/2008	
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