Name of Policy: Use of Intermittent Positive Pressure Breathing (IPPB)

Policy Number: 3364-136-04-03
Department: Respiratory Care
Approving Officer: Vice President, Clinical Services
Responsible Agent: Director, Respiratory Care
Scope: The University of Toledo Medical Center

Respiratory Care Department

Effective Date: 12/1/2015
Initial Effective Date: 7/1/1979

(A) Policy Statement
The Department of Respiratory Care will administer Intermittent Positive Pressure Breathing (IPPB) treatments upon physician order.

(B) Purpose of Policy
To ensure safe and proper set-up and use of IPPB machines.

- Indications: for IPPB therapy are to improve lung expansion, to provide short-term ventilatory support and to aid in the delivery of medications.
- Goals: of IPPB are to deliver aerosolized medications, improve minute alveolar ventilation, improve and promote cough, and to provide a means of mechanical ventilation.
- Contraindications: of IPPB include untreated pneumothorax, flail chest, cardiovascular instability, subcutaneous or mediastinal emphysema, bronchopleural fistula, nausea, recent esophageal surgery, active, untreated TB and active hemoptysis.
- Hazards: of IPPB include hyperventilation, hyperoxegenation, air trapping, decreased cardiac output, increased intracranial pressure, pneumothorax and gastric distention.

(C) Procedure

1. After verification of physician order for IPPB therapy, the Respiratory Care Practitioner will then gather and assemble the appropriate equipment (see the equipment assembly section of this manual, policy #3364-136-01-18).
2. The practitioner should then appropriately identify the patient and explain the treatment purpose and procedure to the patient.
3. As with all patient oriented or equipment procedures performed by respiratory care personnel, special attention should be given to maintaining asepsis.
4. Prior to initiation of, and during therapy, a respiratory assessment should be done, including a heart rate, respiratory rate, breath sounds, and general overall appearance and tolerance of treatment or procedure. Patient response to therapy should also be noted, as described in policy #3364-136-03-07 of this manual.
5. Adjust mechanical parameters such as peak flow, sensitivity, and peak pressure, in such a way that the patient receives the most comfortable and effective treatment possible.
6. Exhaled volumes should be monitored during treatment, and should be larger than the patient's spontaneous tidal volume.
7. Special consideration should be given to the promotion of coughing and deep breathing.
8. Documentation of procedure performed shall be done in the EMR.
9. The practitioner will be responsible for knowledge of safe utilization and maintenance of IPPB equipment and medications used.

- The patient should be closely monitored for the occurrence of any increased shortness of breath, drowsiness, nausea/vomiting, dizziness, bronchospasms, cyanosis, chest pain, tachycardia, agitation, or any other undesirable side effects.
- 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 #3364-136-03-06 of this manual).

References:

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Policies Superseded by This Policy:

Next Review Date: 12/1/2018