Purpose

To identify accountability and to standardize the procedure to mimic the attributes of an effective cough.

Policy

- Respiratory Care Services encourages patients to utilize normal physiologic mechanisms to improve ventilation and remove secretions.
- Deep Breathe and Cough may be administered by a Licensed Respiratory Care Practitioner, Licensed Nurse trained in the proper procedure with an understanding of age-specific requirements for the age of the patient.

Physician's Order

An order by a physician is required specifying:

- Cough and deep breathe to be performed by Respiratory Therapy.
- Frequency of therapy.
- Technique to be used to elicit effective cough (if voluntary effort is not sufficient).
- Deep breathe and cough is an important part of all therapy done and does not need to be ordered in conjunction with other therapies (i.e., I.S./CDB).

Indications

Deep Breathe and Cough is indicated in any hospitalized patient whose own ability to deep breathe and cough is compromised, or has the possibility of being compromised.

Contra-indications

Usually temporary until situation is diagnosed and/or stabilized:

- Acute or impending medical or surgical emergencies.
- Frank overwhelming hemoptysis.
- Acute undiagnosed chest pain.
- Severe bronchospasm or dyspnea.
- Acute vital sign change.
- Recent MI.
- Untreated significant pneumothorax.
- Significantly increased intracranial pressures.
- Leaking aneurysms.
- Some types of eye, vocal cord or neurosurgery.
- Known hypersensitivity to vagal stimulation: arrhythmias, vaso-vagal response.

Goals

- To maintain, evaluate, or improve the patient's pulmonary toilet and function.
- Hypoventilation and an ineffective cough will result in atelectasis, accumulation of bronchial secretions, hypoxemia, and increased risk of pneumonia. The therapeutic objective is prevention.

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Equipment and Supplies

These are variable, depending upon the specific adjunct needed to ensure a deep breathe and cough.

Procedure

Step	Action
1	Verify physician orders and patient ID. Wash hands.
2	Record heart rate, respiratory rate, and breath sounds. Observe patient briefly before beginning therapy.
3	Explain need to deep breathe and cough.
4	Position patient for best effort, as allowed by condition, (i.e., sit and brace if indicated). Auscultate chest.
5	Demonstrate a proper deep breathe/cough technique for patient, and then ask him to mimic effort. • Ask patient for deep breath, noting breath sounds, expansion and splinting if present (auscultation, palpation). • Ask patient for cough effort.
6	If cough mechanism is inadequate, use cough stimulation technique as discussed with and ordered by the physician. Effective cough mechanism: adequate volume (deep breath) and velocity (muscle power) specifically abdominal muscle contractions to propel secretions out of the airway.
7	Following therapy, auscultate/palpate chest, take pulse, and count respirations.
8	If therapy is not effective, no longer required, or should be modified, contact the physician.
9	Record pertinent data in EPIC and notify physician/R.N. as necessary.

Documentation

RCS Policy and Procedure Manual, Guidelines for Medical Record Documentation, # 7.1.1.

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Infection Control

Follow procedures as outlined Healthcare Epidemiology Policies and Procedures: #2.24 Respiratory Care Services.
http://www.utmb.edu/policy/hcepidem/search/02-24.pdf

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