Deep Breathe and Cough

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.

**Equipment and Supplies**

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

**Procedure**

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
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<tbody>
<tr>
<td>1</td>
<td>Verify physician orders and patient ID. Wash hands.</td>
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<tr>
<td>2</td>
<td>Record heart rate, respiratory rate, and breath sounds. Observe patient briefly before beginning therapy.</td>
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<td>3</td>
<td>Explain need to deep breathe and cough.</td>
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<td>4</td>
<td>Position patient for best effort, as allowed by condition, (i.e., sit and brace if indicated). Auscultate chest.</td>
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| 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.
Infection Control


Reference


