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**MASSACHUSETTS
GENERAL HOSPITAL**

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Massachusetts General Hospital

Prone Positioning for Non-Intubated Patients Guideline

Designated Clinical Areas:

All in-patient areas caring for COVID-19

Introduction/Purpose:

For patients with hypoxemia, there are many physiologic benefits to the prone, as opposed to the supine, position. These include better matching of pulmonary perfusion to ventilation, better recruitment of dependent areas of the lung and improved arterial oxygenation. In addition, there is evidence that the prone position results in a more homogenous distribution of stresses in the lung and thus may prevent patients with hypoxemia from developing frank respiratory failure. Prone positioning is extensively used in the ICU to treat intubated patients with hypoxemic respiratory failure^{1,2}, but the benefits cited above should accrue to non-intubated patients as well. For this reason, patients admitted with hypoxemia should be encouraged to adopt the prone position where practical and prone positioning may be used as a rescue therapy in patients with escalating oxygen needs. This document serves to inform clinicians about prone positioning of non-intubated, hypoxemic patients. .

Contraindications:

- Spinal instability
- Facial or pelvic fractures
- Open chest or unstable chest wall
- *Relative contraindications:* delirium, confusion, inability to independently change position, recent nausea or vomiting, advanced pregnancy

Equipment:

- Pillow
- Supplemental oxygen, as needed
- Foam Dressings to protect pressure points (if indicated)
- Continuous O₂ monitor

Nursing Actions/Special Considerations

<u>Nursing Action</u>	<u>Special Considerations</u>
<p><u>Assessment</u></p> <ol style="list-style-type: none"> 1. Assess mobility 2. Assess mental status. 3. Evaluate for absolute/relative contraindications (noted above). <p><u>Monitoring of Patient</u></p> <ol style="list-style-type: none"> 1. EKG leads should remain on anterior chest wall for continuous monitoring (if clinically indicated) 2. SpO2 probe (continuous) should be placed on patient if not already in use. <p><u>Timing</u></p> <ol style="list-style-type: none"> 1. On admit, a patient experiencing respiratory symptoms or requiring supplemental oxygen should receive an initial one hour period of prone position. 2. EKG leads should remain on anterior chest wall. 3. In the prone position, the patient should lie on his/her stomach, supported by their arms and a pillow in such a manner that oxygen supply tubing is unobstructed. 4. Pillows may be placed under the hips, or under the legs, as needed, for comfort. 5. After initial one hour period, patient can reposition themselves to supine, but should be educated on the use of prone position and encouraged to adopt prone position as often as tolerated and able. The goal should be for patient to be in the prone 	<p>Prior to being encouraged to adopt the prone position, the patient should be assessed for ability to independently change position in bed.</p> <p>To minimize interruptions during prone positioning, patients should consider comfort strategies such as: using the bathroom, having the call bell within reach, having their phone or other device within view, and utilizing music or television as a distraction.</p> <p><u>Documentation</u></p> <p>Patients SpO2, oxygen device (i.e NC, simple face mask, NRB), L/min of O2, respiratory rate and dyspnea should be assessed just prior to proning and (1) hour after prone.</p> <p><i>Documenting response to (1) hour in the prone position in EPIC (SpO2, oxygen device, L/min of O2, RR, s/sx of respiratory distress) will help identify those patients who are most likely to benefit should prone positioning be needed as a rescue therapy.</i></p> <div data-bbox="808 1493 1052 1581" data-label="Image"> </div> <p>from Sun et. al³</p> <p>Consider lead placement, ensuring that the leads are not placed on potential pressure points</p> <p>Encourage patient to be mindful of discomfort due to pressure and adjust themselves as needed.</p> <p>Document patient position in EPIC on Daily Care Flowsheet (i.e. prone, supine)</p>

<p>position more often than not while patient is in bed,</p>	

<p>Prone position as rescue therapy</p> <ol style="list-style-type: none"> 1. A patient who develops increasing oxygen need (an increase of > 2L/min in the amount of oxygen needed to maintain SpO2 > 90%) is at risk for respiratory failure 2. If the patient is in the supine position, and it is safe to do so, place the patient in the prone position. 3. Work with the medical team to notify nursing supervisors and medical senior of worsening hypoxemia 4. If patient stabilizes (decreased RR, increased SpO2, decreased L.min O2), reassess with nursing supervisors and medical senior after 1 hour. Consider transfer to ICU. 	<p><u>Documentation</u></p> <p>At time of the event, document in EPIC:</p> <ul style="list-style-type: none"> • L/min of O2 • Oxygen device (NC, face mask, NRB) • RR • SpO2 <p>Prone position as a rescue therapy should not be used as a replacement for ICU transfer or intubation. Therefore, it is important to involve the medical senior resident and nursing supervisors before attempting prone positioning as a rescue therapy.</p>
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References:

Drahnak, D., & Custer, N. (2015). Prone Positioning of Patients with Acute Respiratory Distress Syndrome. *Critical Care Nurse*, 32(6): 29-37.

Guerin C, Reignier J, Richard J et al. Prone positioning in severe acute respiratory distress syndrome. *NEJM* (2013); 368(23): 2159-2168.

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Revision Detail:

APPROVED