**INDICATIONS:**
- Significant respiratory distress and/or respiratory failure due to pulmonary edema or chronic obstructive pulmonary disease, and
- Unsatisfactory response to conventional oxygen therapy

**CONTRAINDICATIONS:**
- Systolic BP less than 100 mmHg
- GCS < 15
- Active vomiting or significant risk of same developing
- Inability to sit upright and follow instructions
- Inability to tolerate mask application
- Known or suspected pneumothorax

**NOTES:**
1. Successful CPAP ventilation requires appropriate patient education before application and ongoing coaching during use. Generally speaking, if the patient can tolerate the first minute of CPAP ventilation, they will feel its benefit and become more cooperative.

2. **Increased patient agitation or decreased cooperativeness during successful CPAP ventilation may indicate worsening hypoxemia.**

3. The use of CPAP may increase minute oxygen consumption (see appendix A). An E-cylinder may provide only 30 to 60 minutes of flow even at full pressure. Always ensure there are sufficient O2 stores available (see H04 Oxygen Consumption Guideline).

4. Prepare and apply as per the manufacturer’s recommendations. An appropriately sized mask should cover from the bridge of the nose to the chin.

5. Begin at 5 cm water pressure (oxygen flow = 8 liters per minute). Slowly increase the pressure (flow) until patient shows desired improvement as measured by subjective comfort, improved oxygen saturation and decreased respiratory distress, or to a maximum pressure of 20 cm water pressure (oxygen flow = 25 liters per minute).

6. Continuously monitor for air leaks.

7. Immediately discontinue CPAP ventilation and manage airway, breathing and BP as required if:
   - Patient cannot tolerate the mask and/or blasts of high air flow for at least 5 breaths.
   - Patient condition does not improve after a 5 minute trial period.
   - Systolic BP decreases to less than 100 mmHg.
   - LOC decreases (GCS < 15).
   - Vomitting occurs.
Appendix A:
CPAP pressure and oxygen flow rate

<table>
<thead>
<tr>
<th>Mouth pressure (cm H2O)</th>
<th>5</th>
<th>7.5</th>
<th>10</th>
<th>15</th>
<th>17.5</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxygen Flow (l/min)</td>
<td>5</td>
<td>10</td>
<td>12</td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>