CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)

FOR USE IN PATIENTS >34 KG

BLS

Universal Protocol #601
Pulse Oximetry – O₂ administration per Airway Management Protocol #602

BLS Elective Skills

For Moderate to Severe Respiratory Distress

Application
- Monitor pulse oximetry throughout use
- Place patient in sitting position
- Set up CPAP per manufacturer recommendations
- Confirm air flow prior to applying mask to patient
- Instruct patient to inhale through nose and exhale through mouth
- Adjust settings, beginning low and titrate in 3cm/H₂O increments – monitoring patient’s tolerance and improved VS
- Consider BVM if patient fails to show improvement
- Document patient response before and after application – see notes

Discontinue (support respirations with BVM) if:
- Hypotension – SBP < 90 mmHg (remove topical Nitroglycerin products if used)
- Increasing respiratory distress or decrease in respiratory drive
- Decreasing LOC
- Evidence of barotrauma (subcutaneous air or pneumothorax)
  Other signs or symptoms of decompensation (ALOC, sustained decrease in O₂ Sat, etc.)

ALS Standing Orders
- Monitor End-tidal Capnography throughout use
- Medication(s) per appropriate treatment protocol (some patients may not tolerate application until medications take effect)
- Consider BVM or endotracheal intubation (adults only) if patient fails to show improvement

Base Hospital Orders Only
- As needed

Notes
- Notify Base Hospital when used

<table>
<thead>
<tr>
<th>Clinical Condition</th>
<th>Therapeutic Range</th>
<th>Maximum Settings</th>
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</thead>
<tbody>
<tr>
<td>Asthma/Anaphylaxis</td>
<td>3.0-5.0 cm H₂O</td>
<td>15 cm H₂O</td>
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<tr>
<td>COPD/Pneumonia</td>
<td>5.0-7.5 cm H₂O</td>
<td>15 cm H₂O</td>
</tr>
<tr>
<td>Pulmonary Edema/Drowning</td>
<td>7.5-10.0 cm H₂O</td>
<td>15 cm H₂O</td>
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</tbody>
</table>

- Indications – Moderate or Severe Respiratory Distress associated with:
  - Acute pulmonary edema
  - COPD
  - Asthma/Anaphylaxis
  - Drowning
  - Pneumonia
- **Contraindications**
  - Unconscious or decreased level of consciousness with inability to adequately ventilate
  - Respiratory failure/arrest or cardiac arrest
  - Tracheostomy
  - Sign and symptoms of a pneumothorax
  - Major facial, head or chest trauma
  - Vomiting or upper GI bleed
  - Epistaxis – moderate to severe
  - Unable to control secretions
  - Uncooperative patient after coaching
  - Hypotension (SBP < 90 mmHg)

- **Documentation**
  - Pressure settings and any adjustments
  - Pulse oximetry readings
  - ETCO₂ and ECG (ALS Providers)
  - Vital Signs
  - Response to treatments