

# DIVISION OF FIRE HEADQUARTERS COMMUNICATION

<b>NUMBER:</b>	<b>CLASS: SPECIAL ORDER</b>	<b>DATE: NOVEMBER 6, 2009</b>
<b>SUBJECT: SUPPLEMENTAL EMT-BASIC CONTINUING EDUCATION - CPAP</b>		

Distributed with this order is the City of Cleveland CPAP protocol. The protocol accompanies a video which is posted to the new testing website portal page containing all current educational media. The video and protocol are to be reviewed for this supplemental continuing education module. The module is titled "CPAP". CPAP stands for continuous positive airway pressure. The material has been approved by Dr. Collins, the City of Cleveland Medical Director.

Through University Hospitals, the City of Cleveland will be receiving 29 CPAP units that will be issued to EMS units and CFD ALS units within the next few weeks. CPAP, according to the State of Ohio, is an EMT Basic function but the decision to use CPAP in Cleveland rests with the functioning paramedic on scene. CFD EMT Basics will be able to assist under the functioning paramedics' direction and should be familiar with the equipment.

All EMT Basics are required to review the CPAP module material and pass the quiz on the testing website. The CPAP quiz will be worth one (1) hour of continuing education. Further CPAP education will be added to future ALS assist classes which are scheduled during the afternoon of BLS class days.

There are questions from the protocol and the video on the quiz. The quiz will be available beginning November 9, 2009 only on the new site. Members who have not yet registered for the new site shall do so according to special order 172-2009.

Members with log in questions shall contact their company officer. Unresolved log in questions shall be directed to the EMT Office.

BY ORDER OF

Paul A. Stubbs, Chief  
Division of Fire

PS/pk/jt

**REMOVE FROM FILE: DECEMBER 31, 2009**

**COMMENTS: Per General Order 8-1, it is each member's responsibility to maintain their EMT certification.**

# Continuous Positive Airway Pressure (CPAP)

## Indications:

1. Only use CPAP when initial supplemental oxygenation methods fail to improve O<sub>2</sub> saturation.
2. Only perform CPAP if the patient has history of significant dyspnea/hypoxemia, secondary to signs and symptoms of congestive heart failure, pulmonary edema, and chronic obstructive pulmonary disease:
  - severe or significant dyspnea
  - increasing dyspnea, RR>24
  - CHF
  - acute pulmonary edema
  - pneumonia
  - COPD
  - cyanosis
  - SPO<sub>2</sub><90%

## Contraindications:

- trauma
- respiratory arrest
- agonal respirations
- unconscious
- pneumothorax
- altered mental status
- penetrating chest trauma
- active nausea/vomiting
- facial trauma
- shock with cardiac insufficiency
- should not be use on children under 12
- active upper GI bleeding

## Procedure:

1. Assess patient to make sure they do not have pneumothorax.
2. Place patient in sitting position
3. **EXPLAIN THE PROCEDURE TO THE PATIENT.**
4. Attach monitor and pulse oximeter.
5. Place the delivery device over the patient's mouth and nose and secure.
6. Start the CPAP control unit at 0 cmH<sub>2</sub>O.
7. Instruct the patient to breath in through their nose slowly and exhale through their mouth as long as possible (count slowly and aloud to four then instruct them in inhale).
8. Explain to patient that you will slowly begin to increase the pressure and to continue exhaling out against the pressure as long as possible before inhaling.
9. Slowly increase the CPAP control unit (titrate to effect starting at lower setting).
  - a. CHF – 10 cmH<sub>2</sub>O
  - b. All other SOB/Dyspnea -5 cmH<sub>2</sub>O
10. If BP is <90 systolic contact Med Command prior to beginning CPAP.
11. Check for air leaks.
12. Monitor and document patient's vital signs, 3-Lead, SPO<sub>2</sub> and patient's overall respiratory response every 5 minutes.
13. Continue to coach patient to keep mask in place. And readjust if needed.

14. Treatment should be continuously throughout transport to ED.
15. If patient's respiratory status or level of consciousness decreases, remove mask and consider BVM ventilations and/or intubation. See Endotracheal Intubation Procedure (Procedure-6).

### **Key Points**

- Offer reassurance to the patient.
- Advise the receiving hospital as soon as possible so they can be prepared for patient.
- Document the adverse reactions and reasons why CPAP was disconnected.
- Monitor your patient for gastric distension which may lead to vomiting from the patient.
- **Do Not** remove CPAP until hospital therapy is ready to be placed on the patient.
- Reassessment of the patient's status is **critical** and should be performed every 5 minutes.
- When documenting the run report be should to include:
  - Vital signs – blood pressure, pulse, etc.
  - Respiratory – effort, rate, and patient lung sounds
  - CPAP control unit level
  - SPO2 prior to and post applying the CPAP
  - Reason for using CPAP
- If CPAP control unit needs to be increased > 10 cmH2O, contact Med Command prior to increasing.