WESTERN REGIONAL EMERGENCY MEDICAL ADVISORY COMMITTEE

SAMPLE OPERATING POLICIES AND PROCEDURES

**CAUTION***: This is a sample policy only. Each agency must adapt and change this to fit their specific CPAP program information!*

[EMS Agency Name]

BLS CPAP Standard Operating Policy and Procedures

Subject: BLS Use of Continuous Positive Airway Pressure [CPAP] **– SAMPLE**

Date Effective:

Date Revised:

Supersedes:

**PURPOSE**: The purpose of this policy is to define the authority for the BLS use of CPAP, training, equipment, protocols and procedures required for the use of CPAP by EMTs. CPAP is a non-invasive means of providing respiratory support for patients who are in enough distress that they need more than supplemental oxygen, but do not yet require intubation.

**POLICY**: The use of Continuous Positive Airway Pressure [CPAP] by Basic EMTs was approved at the September 9, 2014 meeting of the New York State Emergency Medical Service Advisory Council. In addition, the Commissioner of Health has approved the addition of CPAP as a part of the scope of practice for certified EMTs in New York State. The SEMAC approval was granted with the specific condition that an EMS service wishing to use a CPAP device at the BLS level be granted approval by their Western Regional Emergency Medical Advisory Committee [WREMAC] and that each EMT complete an approved training program

**Application**

The agency must first explore the ramifications and logistics of starting a BLS CPAP program and discuss the proposal with their agency medical director. In addition to BLS CPAP authorization, the agency must also be participating in the BLS Nebulized Albuterol program. Once the agency and medical have decided to pursue the use of CPAP for their Basic EMTs, the agency must make a written request to their WREMAC which consists of the following:

* WREMAC Application for Agency Approval of BLS CPAP Use
* Letter from the agency medical director supporting the request for the use of CPAP, including the physician’s plan for quality assurance and appropriateness review of each utilization
* Written policies and procedures for the use of CPAP which are consistent with regional/state policies and protocols. This shall include the following:
  + Written policies and procedures requiring the approved training program requirements for continuing education, maintenance of competencies and the documentation for authorized providers;
  + A description of the CPAP device being utilized by the EMS agency

Once the agency has received written approval from the WREMAC, the agency must provide the NYS Department of Health Bureau of EMS with an updated Medical Director Verification Form (DOH-4362) indicating CPAP approval.

**Qualifications of EMTs**

Persons qualifying for consideration for admission into the BLS CPAP program must be active members in good standing with the agency and currently certified at the EMT or AEMT level. EMTs that are approved for BLS CPAP training must also be trained and authorized to deliver Albuterol by nebulizer.

**Training**

The agency will arrange to provide instruction in CPAP use to each EMT who is approved by their service medical director to perform the procedure. The training program will consist of the following:

* Didactic/Lecture/Demonstration (3-4 hours) using the WREMAC approved PowerPoint Training Program
* Psychomotor/Hands-on Practice (1 hour)
  + Given the agency-specific equipment to be used, the instructor will guide the student to perform the skill to proficiency
  + In a one on one situation, the instructor will use the two scenarios which meet the following criteria
    - There is an indication for CPAP
    - The device fails to operate properly
    - How to troubleshoot the CPAP device
* WREMAC-approved written exam (1 hour) with 80% efficiency
* WREMAC-approved skills evaluation with no failure of critical criteria (1 hour)
  + Must be conducted in a testing environment in which the student understands that he/she is being evaluated and no corrective guidance is given
* Remediation, as needed (4 hours)
  + The student will be allowed two attempts at the written examination and three attempts to perform the practical skills.
  + Students who fail will go through another training session and/or remediation process

The Instructor for the agency training must be a NYS CIC certified at the Critical Care or Paramedic Level. The Agency Medical Director is strongly urged to participate in the training and evaluation process. Although a sales representative may not serve as instructor for this program, he/she can be present to demonstrate the actual device and answer questions regarding its proper set up and use.

Upon completion of the training course, the student shall be able to:

1. List the indications, contraindications, advantages, and potential complications with the use of CPAP.
2. Identify the agency-specific equipment required for the use of CPAP
3. Describe and demonstrate Body Substance Isolation procedures required for the use of CPAP
4. Describe and demonstrate respiratory assessment and basic airway management techniques
5. Describe and demonstrate procedures, including preparation of equipment, positioning of patient, for the use of CPAP
6. Demonstrate proper utilization of CPAP device to include:
   1. Properly sized mask and positioning of mask to include utilization of head straps
   2. PEEP adjustment to 10 cm H2O
   3. Coaching of patient
   4. Monitoring of CPAP circuit for aid leaks
   5. Monitoring the face mask placement for proper fit
   6. Monitoring the patient’s response and tolerance to the CPAP
7. Describe and demonstrate documentation of the CPAP procedures and patient assessment

**Training Records**

Each agency is required to keep a BLS CPAP Course record for each course given. This file must contain the following:

* Separate class roster for each session of the course
* Date of session and time class began and time class ended
* Printed name, signature and EMT # of each student attending
  + *The CIC must make on the record for any student who arrived late to a class or who did not stay for the entire session, including whether or not the time was made up*.
* Printed name, signature and CIC # of supervising CIC
* Printed name, signature, CIC/CLI # and level of certification of each assisting instructor
* Record of training program used and any student handouts
* Competed skills sheets and written exam for each student
* Summary sheet with student results

**Maintenance of Competency - Continuing Education**

Each EMT/AEMT who has been approved to administer CPAP must review CPAP administration procedures, protocols, and successfully complete the written and skills exams at least every three years. This may be done by taking another CLS CPAP training class, a specific CPAP review class or by reviewing CPAP and taking the exams within the EMT refresher program. A record of successful completion of written exam and demonstration of CPAP skills must be kept in the agency member’s/employees file for at least 5 years.

**Indications**

* Patient 10 years of age or older with signs and symptoms consistent with COPD, Asthma, Pulmonary Edema/CHF
* Patient does not improve after oxygen administration
* Patient has two or more of the following:
  + Respiratory rate >24/minute
  + Increased work of breathing
  + SpO2 < 92%
  + Skin mottling, pallor or cyanosis
  + Pulmonary edema or frothy sputum

**Contraindications**

* <10 years of age
* GCS <14
* Systolic BP <90
* Respiratory arrest or agonal respirations
* Blunt, penetrating chest trauma/suspected pneumothorax
* Facial trauma inhibiting mask seal
* High risk of vomiting or aspiration
* Tracheostomy

**Equipment**

*(Agency specific list)*

Appropriate sized all-in-one disposable full mask CPAP units with ability to deliver 10 cm H2O pressure

Inline nebulizer if required for bronchodilator administration

Sufficient oxygen supply

Bag Valve Mask

**Procedure**

1. Request ALS intercept if available. Do not delay transport to the appropriate hospital
2. Position the patient in a seated position with legs dependent if possible
3. Evaluate and treat the patient according to the appropriate treatment protocol
4. Set up the CPAP system following manufacturer directions
5. Explain the procedure to the patient. It is important to coach and reassure the patient throughout the procedure.
6. Verify that oxygen is flowing to the mask and then apply mask
7. Do not exceed 10 cm H2O pressure
8. MONITOR SpO2 continuously throughout; Repeat vital signs every 5 minutes and continuously monitor patient for improvement or failure to improve
   1. The patient should improve in the first five minutes with CPAP, evidenced by decreased heart rate and blood pressure, decreased respiratory rate and increased SpO2

**Emergency Department Notification**

Sudden removal of CPAP on arrival at the ED is risky, so it should be continued until the patient clearly stabilized. It is important to give enough notification to the emergency department so that they can notify respiratory therapy and prepare for patient arrival. Be aware that CPAP will deplete a D-sized oxygen cylinder rapidly and be prepared to immediately access the wall mounted oxygen source as soon as the patient arrives in the emergency department.

**Documentation**

The use of CPAP must be thoroughly documented on the patient’s Prehospital Care Report including the following:

* Patient assessment findings and circumstances contributing to the decision for using CPAP
* Initial vital signs and SpO2
* Vital signs, including heart rate, respiratory rate and blood pressure, skin color, level of consciousness and SpO2 at least every 5 minutes
* CPAP System used
* Time CPAP started
* CPAP level provided (10 cm H2O)
* FiO2 provided (100%)
* Narrative documentation including the patient’s response to treatment
* Additional narrative documentation should include if the patient does not respond to CPAP and EMT’s response
* Any addition interventions/treatments
* Arrival condition at ER
* ***An WREMAC CPAP Use Reporting Form must be completed for each BLS CPAP application (successful or unsuccessful) and be submitted to the AAREMS office within one week of CPAP application***

**PROTOCOL**

The agency will follow the WREMAC approved Adult Respiratory Distress (non-traumatic/non-pneumothorax)Protocol (which includes BLS Albuterol sulfate administration by nebulizer and CPAP) – ***See Next Page***

**Adult Respiratory Distress**

(non‐traumatic/non‐pneumothorax)

Request ALS if available.

Do not delay transport to the appropriate hospital.

Perform obstructed airway maneuvers.

Assist pt. with prescribed MDI.

Yes

Initial Assessment Airway Obstructed?

Noo

Allow pt. to maintain position of comfort. Assist ventilations as needed. Obtain pulse oximetry baseline readings.

Assess PMH; signs/symptoms, vital signs, ability to speak full sentences, pt. self assessment of severity. Administer oxygen.

Contraindications: pt. not alert No

or if MDI is a steroid based medication.

REMAC approved

to administer Albuterol Sulfate?

Yes

Yes

**If pt. is between 1 and 65 yoa, administer nebulized Albuterol Sulfate 0.83%, 1 unit dose at 4 – 6 LPM.**

**Consider use of CPAP in conjunction with Albuterol Sulfate administration.**

**If PMH of angina, MI, cardiac arrhythmia or CHF, contact medical control prior to administration.**

No

Exacerbation of previously diagnosed asthma?

No

Signs and symptoms consistent with COPD/Asthma, pulmonary edema

or CHF?

If required, after initial treatment is completed, repeat nebulized Albuterol Sulfate once.

Contact medical control if additional treatments are required.

**\*\*CPAP CONTRAINDICATION\*\***

< 10 YOA GCS < 14

Systolic BP < 90 Respiratory arrest or agonal respirations Blunt, penetrating chest trauma/ suspected pneumothorax Facial trauma inhibiting mask seal High risk of vomiting or aspiration Tracheostomy

Yes

Continue transport, reassessments

and supportive care.

Regionally Approved CPAP? Assess indications for CPAP if pt. does not improve after oxygen administration\*\*.

2 or more:

Resp. rate > 24/min.

No

Increased work of breathing SpO2 < 92%

Skin mottling, pallor or cyanosis Pulmonary edema or frothy sputum

Yes

Apply CPAP to pt. at 10 cm

H2O PEEP