Protocol
M-02

**SECTION: M-02**

**PROTOCOL TITLE: Adult Reactive Airway Emergencies**

**REVISED: November 1, 2017**

**GENERAL COMMENTS:** It is imperative that the provider attempt to differentiate between a true reactive airway disorder and other respiratory emergencies such as CHF and treat appropriately.

**BLS SPECIFIC CARE:** *See adult General Medical Care Protocol M-1*

*Bronchodilators*

- Nebulizer
    - Albuterol 2.5 mg / Atrovent 0.5 mg nebulized
        - May use DuoNeb™ preparation for initial nebulizer
    - Repeat as needed with Albuterol 2.5 mg
    - Do not dilute
- *As an alternative*: May assist the patient with their prescribed "rescue inhaler." Use a spacer if the patient is prescribed one and has it available
    - Assisted Inhaler: 2 puffs or a specific number of puffs as prescribed
    - Repeat every 5-10 minutes to a maximum of 6 puffs or as prescribed
    - Hold for HR >150/min
- *As an alternative*, *As an alternative*, the patient (or his family) may be allowed to use their own nebulized medication
    - Hook up oxygen in lieu of a room air "condenser" and run at 6-8 LPM with the patients Hand Held Nebulizer (HHN). The patient (or family) must prepare it themselves
    - The patient must prepare it themselves

**AEMT/O.M. Specific Care**: ***See adult General Medical Care Protocol M-1***

*Respiratory Support (if appropriate and available)*

- *Consider* Assisted/Intermittent Positive Pressure Ventilation
- CPAP: See also *Appendix 6*
    - **Medical Control Required if BP less than 90 systolic.**
    - Initial setting at 5 cmH2O, **MAX: 10 cmH2O**

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ADULT REACTIVE AIRWAY

**ALS SPECIFIC CARE:** *See adult General Medical Care Protocol M-1*

*Bronchodilators*

- Magnesium Sulfate for refractory patients *in extremis*.
    - Magnesium Sulfate: IV/IO (for severe episodes)
        - IV/IO: 2 g over 5 minutes, repeat as needed.
        - Do not give faster than 1 g/minute.
        - To Mix: 2 g /250 ml using a 15 gtt set. Run at equivalent of 3000 ml/hour. Titrate for effect. **Max 4 grams**.
- Epinephrine: IM: 1:1,000 (for severe episodes)
    - 0.3-0.5 mg IM for severe refractory bronchospasm
    - Use Epinephrine with caution on patients over 65 or with cardiac history

*Steroidal Therapy*

- Solu-medrol (methylprednisolone): IV/IO *** (for severe episodes.)
    - IV/IO/IM: 125 mg
    - Hold for fever, new onset productive cough, suspicion of CHF etiology

**PHYSICIAN PEARLS:**

- It is important to note, “not all asthma wheezes” and “not all that wheezes is asthma.” The history and physical is key.
- Magnesium Sulfate (IV/IO) and Epinephrine (IM/SQ) should be used only on severe patients who are refractory to initial treatments

**Regarding CPAP**:

- If CPAP is not otherwise available, and the patient has a C-PAP or a Bi-PAP device, and if the ambulance is equipped with an inverter or other means to power device is available, use of the patient’s own C-PAP /Bi-PAP is a viable option in addition to other therapies
- Advise receiving hospital as soon as possible so they can prepare for the patient’s arrival
- Do not remove CPAP until hospital therapy is ready to be placed on the patient
- Success is highly dependent upon patient tolerance and the provider’s ability to coach the patient. Instruct patient to inhale through nose and exhale through mouth as long as possible
- Most patients will improve in 5-10 minutes. If there is no improvement within this time, assess for other causes and problems. Re-evaluate for intubation
- CPAP may be the treatment of choice for a patient in respiratory failure with a DNR order