Protocol M-2

SECTION: M-2

PROTOCOL TITLE: Adult Reactive Airway Emergencies

REVISED: July 01, 2024

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

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

Respiratory Support

- Consider Assisted/Intermittent Positive Pressure Ventilation
- CPAP: See also Appendix 6: CPAP
    - **Medical Control Required if SBP less than 90 systolic.**
    - Initial setting at 2- 5 cmH2O, MAX: 10 cmH2O

ALS SPECIFIC CARE: *See Adult General Cardiac Care/ACS Protocol C-3*

Respiratory Support

- As an alternative to CPAP: Appendix 32: Mechanical ventilation for BiLevel (AKA BiPAP).
    - If coaching is unsuccessful, then consider low dose sedation. See the *Protocol M-15: Sedation for Painful Procedures*

Bronchodilators

- Magnesium Sulfate for refractory patients *in extremis*.
    - **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. DOES NOT REQUIRE A PUMP Titrate for effect.
    - **Max 4 grams**.

ADULT REACTIVE AIRWAY

- 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 (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 working well, there is no need to switch to BiLevel. Continue CPAP. Some patients tolerate CPAP better than BiLevel
- If CPAP/BiLevel (BiPAP) 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. Use of CPAP/BiLevel (BiPAP) is a code critical criteria.
- CPAP may be the treatment of choice for a patient in respiratory failure with a DNR order