

SECTION: M-2

PROTOCOL TITLE: Adult Reactive Airway Emergencies

REVISED: October 15, 2014

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

- 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, the patient may be allowed to use their own nebulized medication. The QRU will offer to hook up oxygen in lieu of a room air “condenser” and run at 6-8 lpm with the patient’s hand held nebulizer (HHN). The patient must prepare it themselves

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

ALS 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
- Magnesium Sulfate for refractory patients in extremis.
 - Magnesium Sulfate: IV/IO (for severe episodes)
 - 2 g over 5 minutes
 - IV: 2 g given SLOWLY. Take 2g (4ml), dilute to 20ml to make 10% solution
 - Rapid administration of magnesium sulfate (i.e. rates >1 g/min) can cause hypotension and respiratory depression. Carefully monitor both during infusion

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- 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

CPAP

- CPAP: See also *Appendix 6*
 - **Medical Control Required if BP less than 90 systolic.**
 - Initial setting at 5 cmH₂O, **MAX: 10 cmH₂O**

PHYSICIAN PEARLS:

- It is important to note, “not all asthma wheezes” and “not all that wheezes is asthma.”
- Magnesium Sulfate 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
- Monitor patient for gastric distension which may lead to vomiting
- Once CPAP headset is in place, consider early administration of nitro-paste, as nitro spray may be impractical to use
- 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
- Monitor closely for development of pneumothorax and or hypotension

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- 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
- CPAP therapy needs to be continuous and should not be removed unless the patient cannot tolerate the mask or experiences continued or worsening respiratory failure

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