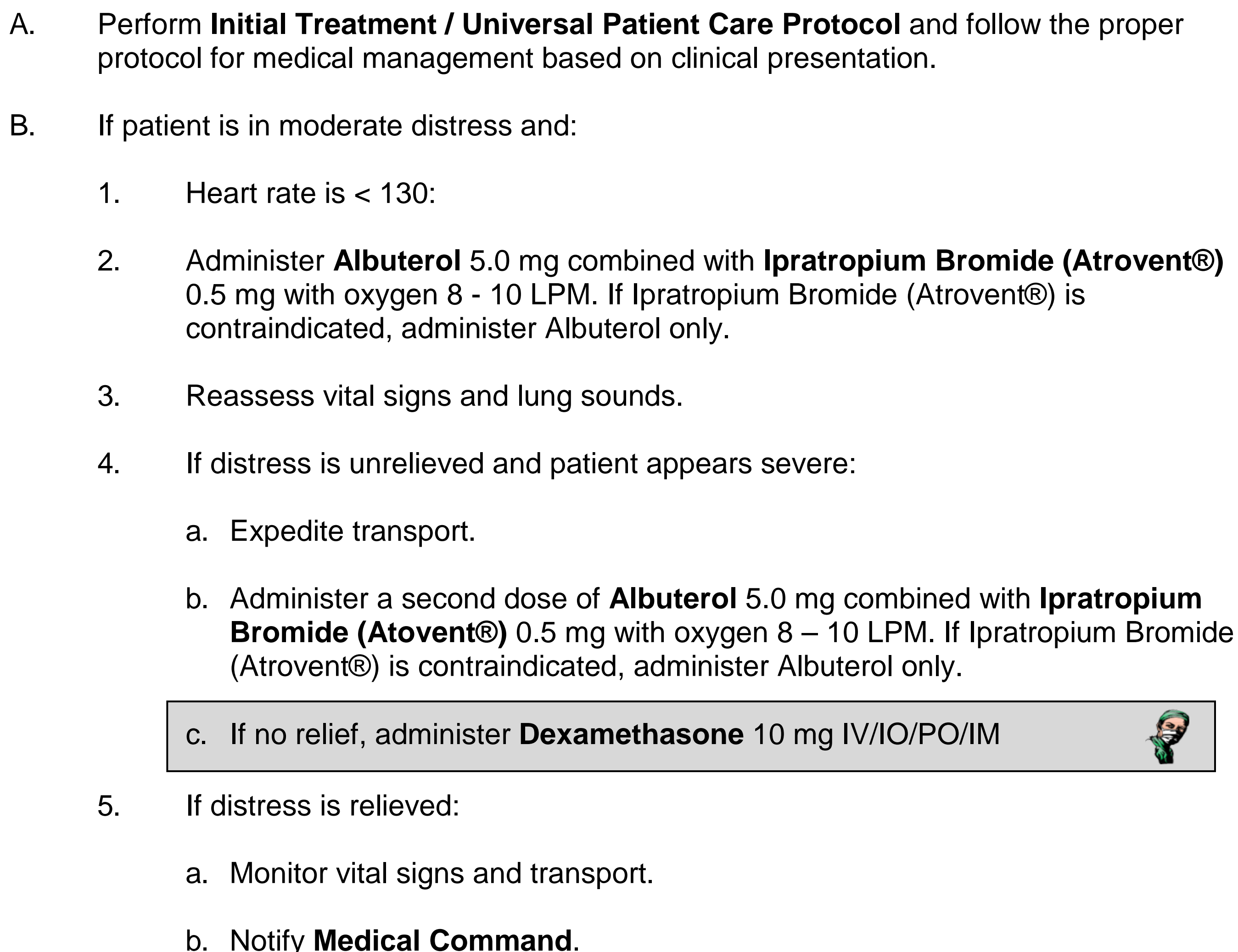
BRONCHOSPASM

Bronchospasm may be the manifestation of several disease processes, most commonly asthma, chronic bronchitis, and emphysema (COPD). Physical examination reveals wheezing and prolonged expiratory phase of breathing. Respiratory Distress is categorized as follows:

- **Minimal Distress:** A slight increase in work of breathing with no wheezing or stridor evident.
- **Moderate Distress:** A considerable increase in work of breathing with wheezing and/or abnormal breath sounds evident.
- **Severe Distress:** Extreme work of breathing (retractions) with decreased lung sounds or decreased lung compliance, inability to speak in full sentences, and/or lethargy.



A. Perform **Initial Treatment / Universal Patient Care Protocol** and follow the proper protocol for medical management based on clinical presentation.

B. If patient is in moderate distress and:

1. Heart rate is < 130:

2. Administer **Albuterol** 5.0 mg combined with **Ipratropium Bromide (Atrovent®)** 0.5 mg with oxygen 8 - 10 LPM. If Ipratropium Bromide (Atrovent®) is contraindicated, administer Albuterol only.

3. Reassess vital signs and lung sounds.

4. If distress is unrelieved and patient appears severe:

   a. Expedite transport.

   b. Administer a second dose of **Albuterol** 5.0 mg combined with **Ipratropium Bromide (Atovent®)** 0.5 mg with oxygen 8 – 10 LPM. If Ipratropium Bromide (Atrovent®) is contraindicated, administer Albuterol only.

   c. If no relief, administer **Dexamethasone** 10 mg IV/IO/PO/IM

5. If distress is relieved:

   a. Monitor vital signs and transport.

   b. Notify **Medical Command**.

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C. If patient is in severe distress and:

1. Heart rate is < 130:

   a. Treat as outlined in “B” above.

   b. If transport time permits, consider administration of **Magnesium Sulfate** 2 grams in 100 ml of Normal Saline IV/IO drip administered over 20 minutes.

   c. Apply CPAP with in-line nebulizer if indicated. CPAP may be useful in lowering the work of breathing in severe episodes.

2. Heart rate is > 130:

   a. Confirm that patient’s tachycardia appears to be from respiratory distress and not from othercauses.

   b. Treat as outlined in “B” above.

   c. Monitor patient’s symptoms and vital signs closely.

   d. If any signs of increasing chest pain or cardiac symptoms develop, stop nebulizer, and treat per appropriate protocol.

   e. **Contact Medical Command** for further treatment options.

D. For extreme respiratory distress marked by diminished air movement resulting in questionable delivery of nebulized medication administer Epinephrine (1:1,000) 0.3 mg IM.

E. In the setting of bronchospasm refractory to treatment, markedly decreased lung compliance with BVM, apnea, or other signs of impending respiratory arrest consider Epinephrine (1:1,000) 0.3 mg IM.