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 a decreased LOC.

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

B. If heart rate is <130 in adults or <150 in pediatrics:

1. Administer **Albuterol** 2.5 mg combined with **Ipratropium Bromide (Atrovent®)** 0.5 mg (Combi-Vent / Duo-Neb) with oxygen 8 - 10 LPM. If **Ipratropium Bromide (Atrovent®)** is contraindicated or the patient is a pediatric, administer **Albuterol** only.

2. Reassess vital signs and lung sounds.

3. If distress is unrelieved and patient appears severe (tripod, semi-Fowler's):

   a. Expedite transport and consider ALS backup.

   b. Administer a second dose of **Albuterol** 2.5 mg combined with **Ipratropium Bromide (Atrovent®)** 0.5 mg (Combi-Vent / Duo-Neb) with oxygen 8 - 10 LPM per **Medical Command.** If **Ipratropium Bromide (Atrovent®)** is contraindicated or the patient is a pediatric, administer **Albuterol** only.

   c. If distress continues and patient is less than 35 years of age and has no history of cardiac disease or hypertension, consider administration of **Epinephrine** 1:1000, 0.3 mg **per MCP order.**

4. If distress is relieved:

   a. Monitor vital signs and transport.

   b. Notify **Medical Command**.

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C. If heart rate is >130 in adults or >150 in pediatrics:

1. Confirm that patient's tachycardia appears to be from respiratory distress and not from other causes.

2. If patient is under age 35 and has no cardiac history:

   a. Proceed with treatment as in "B" above.

   b. Monitor patient's symptoms and vital signs very closely.

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

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

3. If patient shows no improvement, consider use of CPAP or aggressive airway management.

4. If patient is over age 35 and/or has a cardiac history, **consult with MCP** before proceeding with treatment in "B" above. 

5. Further treatment **per order of MCP.**

Note:

1. A very small percentage of COPD patients are on hypoxic drive and high concentrations of oxygen may result in depressed respirations. It is important to continuously monitor the patient's respiratory rate and adjust oxygen rate or assist respirations as directed by **Medical Command**.

2. If respiratory distress appears to be caused from an acute allergic reaction, go to **Allergic Reaction/Anaphylaxis Protocol 6501.**

3. If respiratory distress appears to be from trauma, treat per appropriate protocols.