R020 ADULT WHEEZING

Presentation Suggests Bronchospasm:

Wheezing, prolonged expiratory phase, decreased breath sounds, accessory muscle use, known Hx of asthma/COPD

EMT	AEMT
EMT-I	EMT-P

Adult Respiratory Distress Protocol and prepare for immediate transport.

Give oxygen, check SpO2, & consider IV for severe respiratory distress

Give nebulized **albuterol** + **ipratropium**:

May give continuous neb for severe respiratory distress

Is response to treatment adequate? YES → Continue monitoring (below). NO ↓

Severe Exacerbation:

- IV methylprednisolone
- Consider IM epinephrine. Indicated only if no response to neb, CPAP and for pt in severe distress. Contraindicated if any concern for myocardial ischemia or known CAD

Is response to treatment adequate? YES → Continue monitoring (below). NO ↓

- Reassess for pneumothorax
- Consider CPAP
- If CPAP contraindicated, ventilate with BVM, and consider advanced airway

- Consider IV Magnesium

- Obtain ECG: Rule out unstable rhythm, ACS

- Continue monitoring and assessment en route
- Be prepared to assist ventilations as needed
- Contact base for medical consult as needed

Therapeutic Goals:

- Maximize oxygenation
- Decrease work of breathing
- Identify cardiac ischemia (obtain 12 lead ECG)
- Identify complications, e.g. pneumothorax

Consider pulmonary and non-pulmonary causes of respiratory distress:

Examples; pulmonary embolism, pneumonia, pulmonary edema, anaphylaxis, heart attack, pneumothorax, sepsis, metabolic acidosis (e.g. DKA), anxiety

COPD

- **Correct Hypoxia**: do not with hold maximum O2 for fear of CO2 retention
- Patients with COPD are older and have comorbidities, including heart disease
- Wheezing may be a presentation of pulmonary edema, "cardiac asthma"
- Common triggers for COPD exacerbations include: Infection, dysrhythmia(AFib), myocardial ischemia
- **COPD exacerbations are particularly responsive to CPAP, which may help avoid the need for intubation and should be considered early**.

IV Methylprednisolone will help resolve acute asthma exacerbation over hours, without immediate effect. In severe exacerbations, it may be given pre-hospital but should not be given for mild attacks responding well to bronchodilators.

IM **epinephrine** is only indicated for the most severe attacks deemed life-threatening and not responding to inhaled bronchodilators. Use extreme caution when administering. Cardiopulmonary monitoring is mandatory

IV **magnesium** may be beneficial in some patients with severe attacks. It should not be given routinely, rather should be reserved for life-threatening asthma attacks not responding to conventional therapy.

Approved by Laramie Fire Department Medical Director March 1, 2024