

Respiratory Distress/Bronchospasm

For COPD/asthma exacerbations and any bronchospasms/wheezing not from pulmonary edema

History

- Asthma
- COPD – chronic bronchitis, emphysema
- Home treatment (e.g., oxygen or nebulizer)
- Medications (e.g., Theophylline, steroids, inhalers)
- Frequency of inhaler use

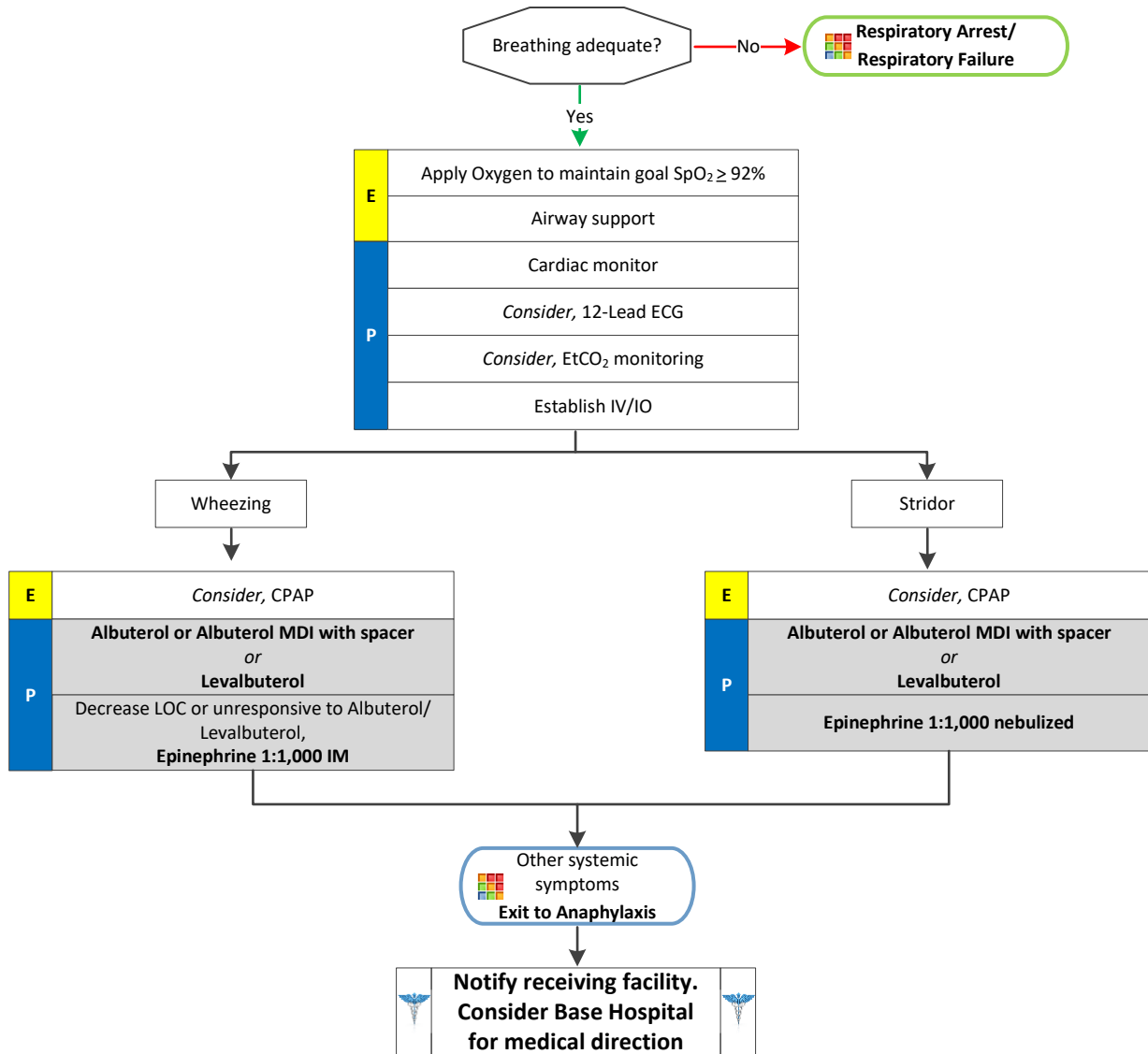
Signs and Symptoms

- Shortness of breath
- Pursed lip breathing
- Decreased ability to speak
- Increased respiratory rate and effort
- Wheezing or rhonchi/diminished breath sounds
- Use of accessory muscles
- Cough
- Tachycardia

Differential

- Asthma
- Anaphylaxis
- Aspiration
- COPD (emphysema or bronchitis)
- Pleural effusion
- Pneumonia
- Pulmonary embolus
- Pneumothorax
- Cardiac (MI or CHF)
- Pericardial tamponade
- Hyperventilation
- Inhaled toxin (e.g., carbon monoxide, etc.)

Adult Respiratory Distress Treatment Protocols



Respiratory Distress/Bronchospasm

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Sudden loss of waveform

- ET tube disconnected, dislodged, kinked or obstructed
- Loss of circulatory function



Decreasing EtCO₂

- ET tube cuff leak
- ET tube in hypopharynx
- Partial obstruction



CPR Assessment

- Attempt to maintain minimum of 10mmHg



Sudden increase in EtCO₂

- Return of spontaneous circulation (ROSC)



Bronchospasm ("Shark-fin" appearance)

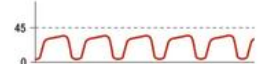
- Asthma
- COPD



Hypoventilation



Hyperventilation



Decreased EtCO₂

- Apnea
- Sedation



Factors Affecting EtCO₂

Causes of Elevated EtCO ₂		Causes of Decreased EtCO ₂	
METABOLISM	Pain Hyperthermia Shivering	METABOLISM	Hypothermia Metabolic acidosis
RESPIRATORY SYSTEM	Respiratory insufficiency Respiratory depression COPD Analgesia/ sedation	RESPIRATORY SYSTEM	Alveolar hyperventilation Bronchospasm Mucus plugging
CIRCULATORY SYSTEM	Increased cardiac output	CIRCULATORY SYSTEM	Hypotension Sudden hypovolemia Cardiac arrest Pulmonary emboli
MEDICATIONS	Bicarbonate administration		

Pearls

- A silent chest in respiratory distress is a pre-respiratory arrest sign.
- Patients receiving epinephrine should receive a 12-Lead ECG at some point in their care in the prehospital setting, but this should NOT delay the administration of Epinephrine.
- Pulse oximetry monitoring is required for all respiratory patients.

