

I. General Considerations

- A. Never withhold oxygen because of the patient's past medical history.
- B. Whenever oxygen is administered, be prepared to control the airway and breathe for the patient.
- C. Do not assign psychological causes to complaints of respiratory difficulty. Serious and treatable causes may be present and must be identified and treated. Especially do not assume that hyperventilation is due to psychological causes. Putting a bag over a patient's face is risky.
- D. Not everything that wheezes is asthma and not all asthmatics wheeze. Consider the many causes of wheezing and be concerned if wheezing ceases but the patient appears worse.
- E. Suctioning should occur only as the catheter is withdrawn in patients who are not breathing or endotracheally intubated. Where possible, these patients should be oxygenated before and after suctioning. Suctioning should be as brief as possible (typically not more than 5 seconds and certainly not more than 15 seconds).
- F. Never leave the patient unattended.
- G. In acute respiratory distress where no cause is evident, consider pneumothorax.
- H. If a pneumothorax is present, intubation combined with positive pressure ventilation can lead to the rapid development of a tension pneumothorax. Be prepared to treat the patient appropriately.
- I. Do not delay transport.

Pediatrics:

If a child appears sick, is holding himself in the sniffing position (neck flexed, head extended) and is drooling, do not attempt to visualize the throat.

II. History

Perform a focused history and physical exam with particular attention to:

- A. Determine the onset, progression and duration of symptoms.
 - B. What was the patient doing immediately before and as the symptoms developed? (e.g., eating, exercising, working with solvents, swimming?).
 - C. Is there a history of injury or insult (trauma, inhalation, choking, aspiration, etc.)?
 - D. Has the patient ever experienced an episode like this and if so, what was the cause and what treatment was effective?
 - E. If the patient is unconscious, how long has it been, has the patient vomited, and what treatment was done?
 - F. Is there a history of lung disease, cardiac or vascular problems, environmental allergies (e.g., bee sting or ragweed problem) or chronic lung disease? Any home oxygen in use?
 - G. Is there a history of recent surgery?
 - H. What signs and symptoms were present before the trouble breathing began? For example, fever, chills, cough, sputum production, leg swelling, chest pain, seizure, bloody sputum, bloody vomitus or bowel movements, numbness and tingling?
 - I. What medications has the patient been or is the patient supposed to be taking? Include over the counter medications.
 - J. Assess the environment. Are there noxious odors or could harmful gases be present? Are there bees or allergenic sources nearby?
 - K. If this is a possible drowning, how long was the patient submerged? What was the approximate water temperature?
 - L. Has there been a change in voice? Is the patient drooling? Does the patient have a fever?
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III. Physical Examination

- A. Perform an initial assessment with special attention to the adequacy of ventilation and mental status.
 - B. Perform a focused history and physical exam.
 - C. Assess the patient for evidence of upper airway obstruction.
 - 1. Is the patient able to speak? How many words in a sentence?
 - 2. Is there hoarseness, coughing, stridor or audible wheezing?
 - 3. Is there drooling or tripodding?
 - 4. Assess the chest.
 - a. Are accessory muscles being used?
 - b. Are there retractions?
 - c. Is chest expansion symmetrical?
 - d. Assess the breath sounds if you are trained to do so.
 - 1. Are they present and equal right and left?
 - 2. Are there rales, rhonchi (crackles), or wheezes?
 - D. Assess the skin.
 - 1. Is it warm, hot or cool?
 - 2. Is it dry or moist?
 - 3. Note any color changes (e.g., pale, cyanotic, red).
 - 4. Is there evidence of a bite or sting?
 - 5. Are hives or a rash present?
 - 6. Is there bruising or evidence of injury?
 - E. Assess the neck.
 - 1. Is the trachea midline?
 - 2. Is there subcutaneous emphysema?
 - 3. Are the neck veins distended?
 - F. Assess the patient for signs of peripheral edema.
 - 1. Are the ankles swollen?
 - 2. Is there edema over the lower back and sacrum area?
- Paramedic**
- G. Assess the cardiac rhythm.
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IV. Treatment

{For anaphylaxis, see **anaphylaxis protocol**}

Basic

- A. Establish an airway, maintain as indicated; suction as needed.
 - B. Based on assessment findings, determine which of the following categories the patient fits into:
 - breathing is adequate;
 - breathing is inadequate or absent;
 - airway is obstructed by a foreign body.
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If the patient is breathing adequately:**Basic**

- A. Administer high concentration oxygen.

Note: If the patient has a known history of COPD or is on low concentration oxygen at home, assess the patient's respiratory difficulty carefully. It may be appropriate to use low concentration oxygen on patients with minimal difficulty breathing. When in doubt,

use high concentration oxygen and report the patient's history and condition to medical direction for further guidance.

- B. Place the patient in a position of comfort.
- C. Re-assess the adequacy of the patient's respirations frequently. Be prepared to treat the patient for inadequate ventilation.
- D. **EMT-Bs-** *If the patient has a currently prescribed broncho-dilator, determine if the patient has used it prior to your arrival and if so, how many times. Contact on-line medical direction for orders on additional doses using the metered-dose inhaler up to the maximum dose prescribed on the inhaler. Complete an ongoing assessment including reevaluation of vital signs.*

Intermediate

- E. Secure IV access.
- F. ▲ *If the patient's condition is consistent with bronchoconstriction, seek on-line direction for adult and pediatric administration of albuterol.*

Paramedic

- G. Assess and monitor the cardiac rhythm; treat arrhythmias/dysrhythmias per applicable protocols.
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If the patient's breathing is inadequate or absent:

Basic

- A. Assist the patient's ventilations using an appropriate device (bag-valve-mask, flow-restricted oxygen-powered ventilation device (FROPVD), pocket mask, etc.) and high concentration oxygen.

Intermediate

- B. Secure IV access.
- C. *Consider contacting medical direction for order to administer naloxone.*
- D. If the patient is **in respiratory arrest**, and the patient's condition has not improved after administration of naloxone (if ordered), secure the airway using an advanced airway device. Do not extend the neck.

Paramedic

- E. Secure advanced airway. *As needed and as authorized by medical direction, consider pharmacologically-assisted intubation.*
 - F. Assess and monitor the cardiac rhythm; treat arrhythmias/dysrhythmias per applicable protocols.
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If the patient's airway is obstructed by a foreign body:

Basic and Intermediate

- A. Follow nationally recognized guidelines for relief of foreign body airway obstruction.

Paramedic

- B. If manual efforts, laryngoscopy and Magill forceps are unsuccessful, perform trans-tracheal catheter ventilation.
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Paramedic Interventions (in addition to the above)**Acute exacerbation of asthma or chronic obstructive pulmonary disease**

- A. Administer Albuterol
 - 1. A patient over 12 years of age may take 2 puffs of an inhaler; or
 - 2. Nebulize 2.5 mg in 3.0 ml NS.
- B. *If local medical direction permits, an anticholinergic such as ipratropium (0.5 mg) or glycopyrrolate (0.2 - 1.2 mg) may be added to this treatment.*
- C. *Consider seeking on-line medical direction for the administration of methylprednisolone 1 mg/kg intravenously*
- D. *If allowed and ordered by on-line medical direction, bi-level non-invasive mask ventilation or continuous positive airway pressure mask ventilation may be administered.*

Pulmonary edema

- A. Administer nitroglycerin 0.4 mg SL and apply 1 to 2 inches of nitroglycerin paste topically.
- B. *Administer Furosemide 40 - 80 mg IV push or other diuretic.*
- C. *Medical direction may consider administering an ACE inhibitor.*
- D. *Consider morphine sulfate 2-5 mg IV slowly and repeat once in 5 minutes if needed. Monitor respiratory rate and blood pressure closely. Be prepared for vomiting.*
- E. *If allowed and ordered by on-line medical direction, bi-level non-invasive mask ventilation or continuous positive airway pressure mask ventilation may be administered.*

Tension pneumothorax (pneumothorax with hemodynamic compromise)

- A. *Perform needle chest decompression.*