

CENTRAL CALIFORNIA EMERGENCY MEDICAL SERVICES

Manual	Emergency Medical Services Administrative Policies and Procedures	Policy Number 530.16
Subject	Paramedic Treatment Protocols RESPIRATORY DISTRESS	Page 1 of 2
References	Title 22, Division 9, Chapter 4 of the California Code of Regulations	Effective Fresno County: 01/15/82 Kings County: 04/10/89 Madera County: 06/15/85 Tulare County: 04/19/05

SPECIAL CONSIDERATIONS AND PRIORITIES

1. Assessment – Mental status, vital signs, breath sounds, peripheral edema, cyanosis, inspiratory/expiratory ratio, accessory muscle use, retractions, neck vein distension, tracheal position, increased AP chest diameter, and diaphoresis.
2. Be prepared to assist ventilations. Cardiac monitor for all patients.
3. Transport with IV attempts enroute.
4. Accurate determination of the cause is difficult; it is important to distinguish between upper and lower airway obstruction:
 - Upper Airway Obstruction – Inspiratory difficulty with stridor
 - Lower Airway Obstruction – Exhalatory difficulty with wheezes or crackles.
 - A. Upper Airway Obstruction – Upper Airway Sounds (Inspiratory Stridor)
 1. Signs of shock, history of exposure to allergen (e.g., bee sting) or hives – “Anaphylaxis,” EMS Policy #530.22.
 2. Fever, drooling, history of sore throat (usually in young children) – EMS Policy #530.38.
 3. History of onset during meal, aspirations, lump in throat, now unable to speak – “Airway Obstruction – Foreign Body” – EMS Policy #530.17.
 - B. Lower Airway Obstruction
 1. Differentiation of chronic obstructive pulmonary disease (COPD) from cardiogenic pulmonary edema (CHF), and pneumonia can be extremely difficult. If in doubt as to the etiology, follow the “Shortness of Breath with Bronchospasm” algorithm – EMS Policy #530.14.

Approved By	Signatures on File at EMS Agency	Revision
EMS Division Manager		04/19/2005
EMS Medical Director	Signatures on File at EMS Agency	

Subject Paramedic Treatment Protocols – Respiratory Distress	Policy Number 530.16
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C. Albuterol Administration

1. Place a T-piece between bag-valve-mask and endotracheal tube. Nebulizer is placed on bottom part of T-piece. Administer Albuterol per protocol. Ventilate patient normally.
 2. Albuterol should only be given AFTER Epinephrine in intubated patients.
5. Asthma – A cause of episodic lower airway obstruction, with normal breathing between episodes. Age is often less than 40 years, history of asthma, no cardiac history, may be on ASTHMA/COPD meds (see below, Beclomethasone (Vanceril), or Azmacort).
6. History:
- a. Use Mnemonic: “PAST MED”:
 - “P” progression
 - “A” associated chest pain
 - “S” sputum
 - “T” tiredness/time
 - “M” medications
 - “E” exertion
 - “D” diagnosis of last similar episode
 - b. Allergies, heart disease, lung disease
7. Patients with severe COPD may retain CO₂ as they recover from hypoxemia. All patients on high flow oxygen must be watched carefully for decreasing mental status and decreased respiratory effort – respirations may need to be assisted.
8. The following chart lists typical findings but there is a broad range of presentations.

	CARDIOGENIC PULMONARY EDEMA	COPD WITH ACUTE EXACERBATION	PNEUMONIA
History:	May have history of Angina, MI, or CHF	Bronchitis, Emphysema and recent URI, or heavy smoking history	Any age, progressive SOB with cough
Meds:	May be on cardiac meds: Furosemide (Lasix), digoxin (Lanoxin), NTG, isosorbide (Isordil), nifedipine (Procardia), captopril (Capoten), Enalaprilat (Vasotec)	May be on theophylline: (Theodur, Constant-T), Albuterol (Proventil, Ventolin), metaproterenol (Alupent), prednisone, home oxygen	May be on antibiotics
Physical Signs:	May have peripheral edema, neck vein distension	Usually no peripheral edema. Pursed lip breathing is characteristic	Usually fever, no peripheral edema
Chest Shape:	Usually normal	Often increased AP diameter	Usually normal
Lung Sounds:	Inspiratory crackles (rales), especially in lower areas	Expiratory wheezes and may also have crackles (rales), but occur early in inspiration	Asymmetric or localized crackles
Sputum	Watery, may be foamy, pink, or blood tinged	Thick and white, yellow or green	Thick and white, yellow or green