SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 01/07/13 **Protocol: P-21.2**
Supersedes: 07/01/02

RESPIRATORY DISTRESS - BRONCHOSPASM

SUBJECTIVE FINDINGS

- **History:** Previous episodes. Previous hospitalizations or intubations. Fever, sputum production, medications (bronchodilators), exposure (allergens, toxins, fire/smoke), trauma (blunt/penetrating).
- **Symptoms:** Chest pain, shortness of breath.

OBJECTIVE FINDINGS

- Mental status
- Skin signs, peripheral perfusion
- Respiratory rate, rhythm, pattern and work of breathing
- Lung sounds
- Blood pressure, heart rate and rhythm
- Oxygen saturation
- Rash, urticaria
- Evidence of trauma

BLS Treatment	ALS Treatment
• Routine Medical Care. • Ensure patent airway. • High flow oxygen 10-15L/min via nonrebreather mask (or 2-6 L/min via nasal cannula if mask not tolerated). • BVM. Suction PRN .	• IV of NS. • O2 saturation monitor. Titrate O2 flow rate to keep O2 saturation at target range **94 - 95%.** • **Albuterol** 5.0 mg in 6 ml NS via nebulizer, repeat prn until relief of symptoms. • For patients with severe refractory bronchospasm who are less than 40 yrs old and NO history of coronary artery disease or hypertension; give : - **Epinephrine (1:10,000)** 0.15 mg slow IVP. Repeat q 5 min to maximum of 0.3 mg. - If no IV access, **Epinephrine (1:1000)** 0.3 mg SQ. May repeat in 5 min. • Advanced Airway management as indicated.
BASE HOSPITAL CONTACT CRITERIA	
• **Epinephrine** for patients over 40 years of age, or with known history of coronary artery disease or hypertension.	

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DOCUMENTATION

- Physical findings of wheezing or decreased lung sounds.
- Administration of oxygen.
- Administration of Albuterol or Epinephrine.
- IV of NS in moderate / severe distress.

PRECAUTIONS AND COMMENTS

- Supplemental oxygen should not be withheld in COPD or chronic upper airway obstruction. Observe for any decrease respiratory rate. High flow O2 in patients with COPD has been associated with worse outcomes than low flow O2.
- **Epinephrine** may cause: anxiety, tremor, palpitations, tachycardia, hypertension and headache. These may be particularly severe if given IV. In elderly patients, epinephrine administration may precipitate AMI, hypertensive crisis, intracranial hemorrhage and/or dysrhythmias.