### **Respiratory Distress**

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#### Initial actions:

- Conduct scene size-up, primary assessment, & immediate life-saving interventions. Have an airway adjunct, ventilation & suction devices nearby & ready.
- Promptly administer oxygen as tolerated by the patient and, if available, titrate with pulse oximetry to desired SpO<sub>2</sub>.
- Place the patient in a position of comfort (preferably seated in fowler's position)
- Request Advanced Life Support (ALS) considering their availability & hospital proximity.
- Obtain baseline vital signs, SAMPLE history, & conduct a secondary assessment attentive to respiratory fatigue, failure, or arrest.

# Initiate the following treatment(s) as indicated & appropriate for awake, spontaneously breathing patients with respiratory distress.

#### Prompt transport is important – DO NOT delay transport to administer these treatments.

Therapy	Short-acting bronchodilator mist	Continuous Positive Airway Pressure (CPAP)		
Form	Metered Dose Inhaler (MDI) • Unit-dose solution by small volume nebulizer (SVN) • High-flow nebulizer (HFN)	<ul> <li>Driven by oxygen or air</li> <li>Full face or nasal mask, NO nasal prongs</li> </ul>		
Source	Must be prescribed for, & supplied by, the patient	<ul> <li>Prescribed for, &amp; supplied by, the patient</li> <li>Supplied by EMT/agency under Medical Director</li> </ul>		
Authorization	All EMTs	<ul> <li>Patient prescribed, or</li> <li>EMTs under on-line Medical Control, or</li> <li>Medical Director protocol</li> </ul>		
Age	No restriction	18 years or older		
Indication(s)	<ul> <li>Dyspnea &amp; signs of respiratory distress associated with bronchospasm (breath sounds diminished or wheezing, retractions, etc.)</li> <li>Alert patient physically able to use inhaler or nebulizer.</li> </ul>	<ul> <li>Dyspnea &amp; signs of respiratory distress associated with pulmonary edema (breath sounds diminished, wheezing, or significant rales; retractions; etc.)</li> <li>Continuation of CPAP therapy in progress prior to EMS arrival or initiated by ALS.</li> </ul>		
Contraindications	<ul> <li>Medication is expired.</li> <li>Known hypersensitivity or allergy to the medication.</li> <li>Inability of the patient to physically assist in using the device.</li> <li>Maximum prescribed dose has been met or exceeded prior to EMS arrival</li> <li><u>SVN and/or HFN</u> Solution is discolored, cloudy, or precipitated</li> </ul>	<ul> <li>Respiratory failure or apnea</li> <li>Hypotension (SBP &lt; 100 mm Hg)</li> <li>Pneumothorax</li> <li>Facial, laryngeal, or pulmonary trauma</li> <li>Tracheoesophageal fistula</li> <li>Recent tracheal, esophageal, or gastric surgery</li> <li>Active or anticipated vomiting or upper GI bleeding</li> <li>Failure to tolerate or completely seal CPAP mask</li> </ul>		
Adverse Effects	<ul> <li>Hyperglycemia</li> <li>Anxiety</li> <li>Vomiting</li> <li>Hypertension</li> <li>Headache</li> <li>Throat irritation</li> <li>Hypertension</li> <li>Headache</li> <li>Throat irritation</li> <li>Headache</li> <li>Headache&lt;</li></ul>	<ul> <li>Claustrophobia</li> <li>Excessive cooling</li> <li>Nausea</li> <li>Sinus discomfort</li> <li>Sinus discomfort</li> <li>Sinus discomfort</li> <li>Cardiac arrhythmia</li> <li>Pneumothorax</li> <li>Edema</li> <li>Aerophagia</li> <li>Subcutaneous emphysema</li> </ul>		

REMEMBER: When questions or concerns arise, contact medical control.

### New Jersey Department of Health Office of Emergency Medical Services EMT Treatment Protocols

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Administration	• Obtain	& use spacer, if available				
(MDI)	Determine number of puffs that make one dose per physician order					
		• Coach the patient to exhale, depress canister while inhaling, hold breath as long as comfortable, then				
	<ul> <li>exhale slowly through pursed lips or nose</li> <li>Separate puffs within one dose with 30-60 seconds of oxygen</li> <li>May repeat one full dose once if indications remain after 5 minute reassessment unless the respectively.</li> </ul>					
			n alter 5 minute reassessment unless the repeat dose			
Administration	would exceed the maximum prescribed dose					
(SVN) or (HFN)		• Assemble & supply $O_2$ to SVN or HVN according to manufacturer's specifications				
	Coach patient to slowly & deeply inhale the mist, hold breath as long as comfortable & the					
	slowly					
	Tap nebulizer as necessary to encourage solution to accumulate & settle into cup/bowl & sustain mist					
	delivery					
		Replace the original oxygen device after fog concludes				
	May repeat once if indications remain after 5 minute reassessment unless the repeat do					
	the maximum prescribed dose					
Administration	• Limit CPAP to no more than 10 cm H <sub>2</sub> O unless directed by medical control or patient prescription					
(CPAP)	Brief patient on what to expect & how to cooperate when CPAP mask is applied					
	Assemble & supply O <sub>2</sub> to CPAP device according to manufacturer's specifications					
		Assure a snug fit of CPAP mask & adequate O <sub>2</sub> supply				
		• Reassess for tolerance of therapy, gastric distention, respiratory fatigue or failure, hypotension, &, if				
		available, $SpO_2$ desaturation				
		• Be prepared to abandon CPAP & provide original $O_2$ therapy or assisted ventilation				
		If possible, notify receiving facility prior to arrival that patient is receiving CPAP				
Documentation	MDI	Note dose(s), time(s) of administration &	CPAP			
	SVN	patient response & communicate this		response & communicate this during		
	HFN	during transfer of care to ALS and/or		transfer of care to ALS and/or receiving		
		receiving facility staff		facility staff		

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