**SUBJECT:** Respiratory Distress, Acute exacerbation of Bronchoconstriction/COPD/Asthma

**PURPOSE:** To clearly establish the Department’s position on the clinical care and treatment of patients presenting with symptoms of respiratory insufficiency.

Scope:

This clinical protocol applies to all agents of a department that receive Medical Direction through the Virtua Health MORE Program.

Responsibility:

All personnel from a department that receives Medical Direction through the Virtua Health MORE Program are the adhere to this protocol. The Medical Director or his/her designee(s) will be responsible for assuring compliance through direct observation, feedback and quality assurance reviews, which the assistance of the department’s management team. Unusual occurrences involving patient care will be reported to the NJSDOH-OEMS in compliance with N.J.A.C. 8:40-3.5.

Procedure:

1. Conduct scene size-up, primary assessment, and immediate lifesaving interventions. Have an airway adjunct, ventilation and suction device nearby and ready for use.
2. Promptly administer oxygen as tolerated by the patient, titrate with pulse oximetry to desired SpO**2** of ≥94% and ≤99%.
3. Place the patient in a position of comfort (preferably seated in fowler’s position).
4. Request ALS if not already dispatched.
5. Obtain baseline vital signs, SAMPLE and OPQRST history, and conduct secondary assessment.
6. If patient is awake, spontaneously breathing in respiratory distress associated with bronchospasm BLS may assist patient with a short-acting bronchodilator mist, if no contraindications are present. **MEDICATION HAS TO BE PRESCRIBED FOR AND SUPPLIED BY THE PATIENT.**
7. There is no restriction based on age of the patient.
   1. Forms:
      1. Meter Dose Inhaler (MDI)
      2. Unit-dose solution by small volume nebulizer (SVN)
      3. High-flow nebulizer (HFN)
8. Administration:
   1. MDI:
      1. Obtain and use spacer, if available.
      2. Determine number of puffs that make one dose per physician order.
      3. Coach the patient to exhale, depress canister while inhaling, hold breath as long as possible, then exhale slowly through pursed lips or nose.
      4. Separate puffs within one dose with 30-60 seconds of oxygen.
      5. May repeat one full dose if indications remain after 5 minutes reassessment unless the repeat dose would exceed the maximum prescribed dose.
   2. SVN or HFN
      1. Select mouthpiece or mask delivery
      2. Assemble and supply O**2** to SVN or HFN according to manufacturer’s specifications.
      3. Coach patient to slowly and deeply inhale the mist, hold breath as long as comfortable and then exhale slowly.
      4. Tap nebulizer as necessary to encourage solution to accumulate and settle into the cup/bowl and sustain mist delivery.
      5. Replace the original oxygen device after fog concludes.
      6. May repeat once if indications remain after 5 minutes reassessment unless the repeat dose would exceed the maximum prescribed dose.

**WHEN QUESTIONS OR CONCERNS ARISE, CONTACT MEDICAL CONTROL**

Signs and Symptoms of Acute exacerbation of Bronchoconstriction/COPD/Asthma

* Cough
* Shortness of breath
* Wheezing
* Air hunger
* Diminished breath sounds
* Retractions
* Tachypnea
* Hypertension
* Rales

Contraindications:

* Medication is expired
* Known hypersensitivity or allergy to the medication.
* Inability of the patient to physically assist in using the device.
* Maximum prescribed dose has been met or exceeded prior to EMS arrival.
* Additional for SVN/HFN:
  + Solution is discolored, cloudy, or precipitated.

Adverse Effects:

* Hyperglycemia
* Hypokalemia
* Palpitations
* Anxiety
* Tremors
* Nausea/Vomiting
* Dry mouth
* Epistaxis
* Hypertension
* Headache
* Dyspepsia
* Insomnia
* Sinus tachycardia
* Throat irritation
* Paradoxical bronchospasm

Mandatory Documentation:

* Note dose(s), time(s) of administration
* Patient response
* Hospital Notification, if not done by ALS.

