Breathing Difficulty (Respiratory Distress)

Protocol

Douglas County KS EMS System

November 2022

<u>Reference Procedures:</u> 12 lead, <u>BVM</u>, <u>CPAP</u>, <u>Cricothyroidotomy</u>, <u>Endotracheal Intubation</u>, <u>ETCO2</u>, <u>I-gel</u>, <u>Pulse Oximetry</u>, <u>Z Vent</u>

Goals for Patient Care:

- Recognize and begin to treat patients in respiratory distress
- Improved clinical stability and patient comfort

Medications:

ADULT Medication:

- Albuterol:
 2.5 mg in 3cc N.S. repeat PRN
- **Ipratromium bromide:** 0.5 mg in 2.5cc NS
- Methylprednisolone: 125mg IV slow or IM
- Magnesium Sulfate:

 1 g IV/IO over 20 minutes
 (50 gtts/min in 100cc NS w/10gtt set)
- Epinephrine:

0.3mg IM (1/1,000)

- If hypotension <90 or severe respiratory distress, 0.3 mg (1/10,000) IVSP
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- <u>Ketamine:</u> 0.3 mg/kg IV/IO/IM (Max dose 50mg)

<u>CPAP:</u> Start with 5 cmH2O and adjust to effectiveness up to 10cmH20

PEDIATRIC Medication: Refer to HandTevy

Albuterol:2.5 mg in 3cc N.S. repeat PRN

Ipratromium bromide: 0.5 mg in 2.5cc NS

- Methylprednisolone:
 2 mg/kg IV slow or IM
- Magnesium Sulfate:
 25-50 mg/kg IV/IO over 20 minutes
 (50 gtts/min in 100cc NS w/10gtt set)
- Epinephrine:
 0.01 mg/kg (1/1,000) IM

(max 0.3 mg)

- If hypotension < age x 2 plus 70 or severe respiratory distress, 0.01 mg/kg (1/10,000) IVSP
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- Ketamine: 0.3 mg/kg IV/IO/IM (Max dose 50mg)

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Patients present with shortness of breath due to multiple medical conditions (anemia, aspiration, asthma, allergic reaction, bronchospasm, COPD, CHF, trauma, etc.)

This protocol is most applicable to patients with wheezing or decreased air entry thought to be asthma or COPD.

Patients with known asthma or COPD who complain of chest pain or shortness of breath should be treated empirically with beta-agonists (albuterol) even if wheezing is absent.

If CPAP is needed, continue inhaled meds.

Patients with COPD who are NOT in distress, require saturations of 90%.

Procedures/ Interventions:

- Administer oxygen and assist ventilation as required
- Secure airway if necessary
- Administer nebulized albuterol and atrovent (Ipatropium Bromide)
- Consider NIPPV if patient condition does not improve (see BiPap/CPAP protocol)
 - Administer nebulized medication with NIPPV
 - CPAP- Initial dose 0-2cm/H20 increase until effective (max 10)
- Establish IV access and consider up to 500mL NS depending up patient exam and clinical scenario
- In asthmatics, consider magnesium sulfate if patient is refractory to initial therapy.
- In cases of severe respiratory distress and shock, consider IM epinephrine
- Consider epinephrine drip if patient is refractory to IM epinephrine

Considerations

Considerations for crews on scene prior to ambulance arrival.

1. Obtain history

Asthma, COPD, CHF, Allergies, medications and if they are compliant, duration, have they ever been intubated before due to breathing problems

- 2. Apply oxygen (Nasal Cannula, Non-rebreather, BVM)
- 3. Obtain vitals, listen to lung sounds (SAMPLE)
- 5. Coach and keep the patient calm
- 6. Give full report to arriving paramedic of all information gathered, treatments rendered, and whether the patient would like to be transported or not