

EL DORADO COUNTY EMS AGENCY

PREHOSPITAL PROTOCOLS

Effective: July 1, 2015

Reviewed: May, 2022

Revised: May, 2022

Scope: BLS/ALS – Adult/Pediatric

please see signature on file

EMS Agency Medical Director

BRONCHOSPASM/COPD - ADULT

PROTOCOL PROCEDURE: Flow of protocol presumes that condition is continuing. If the patient is in distress, immediate rapid transport is preferred with treatment performed en route.

Basic Life Support

EMT

ABCs / ROUTINE MEDICAL CARE –

- Place in position of comfort
- Assess airway and support ventilation with appropriate airway adjuncts as indicated.
- Apply escalated dosing of oxygen if pulse oximetry <94% or signs of hypoperfusion or respiratory distress.
- Allow patient to administer their own respiratory medications as prescribed by their physician, see **Field Policy: BLS Medication Administration**.
- HP-CPR as indicated

Continuous Positive Airway Pressure (CPAP)

(Contraindications: decreased LOC, no gag reflex, vomiting, facial trauma, hypotension)

- Start with valve at 7.5 cmH₂O setting and 100% O₂ flow rate.
- Titrate to patient's condition. If patient's respiratory status does not improve CPAP pressure may be increased every 5 minutes, first to 10.0 cmH₂O and then to a maximum pressure setting of 15 cmH₂O if required.
- Monitor and record vital signs every 5 minutes.
- Be prepared for possible hypotension. If hypotension develops, decrease valve setting.

If patient continues in severe distress, consider assisted breathing with O₂ and BVM

LOSOP

EMT working under Local Optional Scope

FOR EXTREMIS PROXIMATE TO BRONCHOSPASM (Low SpO₂, Inability to speak, and/or ALOC):

Epinephrine Auto-injector, or;

Epinephrine 1:1000 (0.1mg/mL) – 0.5 mg IM. Repeat after 10 minutes as needed.

Consider BVM and SGA if required

Advanced Life Support

Paramedic

FIRST LINE:

Nebulize:

5 mg albuterol and 0.5 Mg Ipratropium (Atrovent) in 3 mL normal saline.
Do not repeat the Ipratropium.

If symptoms persist, initiate continuous **ALBUTEROL 5 mg** in 3 mL normal saline (Max. 15 mg/hr). Breathing treatments may be given concurrently with CPAP.

VASCULAR ACCESS - establish an IV/saline lock.

MAGNESIUM SULFATE – 2 g in 100 mL normal saline IV/IO over 20 minutes

FOR EXTREMIS PROXIMATE TO BRONCHOSPASM (Low SpO₂, Inability to speak, and/or ALOC):

EPINEPHRINE 1:1,000 (1 mg/mL) 0.5 mg IM. (Repeat doses q 10 minutes prn).

FOR STRIDOR: (Moderate to severe croup/airway burns/laryngeal edema/anaphylaxis)

NEBULIZED EPINEPHRINE 1:1,000 (1mg/mL) – 5 mg (5 mL) via nebulizer over 10 minutes.
Repeat q 10 minutes prn.

Note: If heart rate increases > 20%, visible tremors, or increased arrhythmias/palpitations, discontinue treatment and contact Base Hospital.

Reference: Routine Medical Care, BLS Medication Administration, Optional Skills, CPAP, Asthma, EpiPen & EpiPen Jr. Auto Injector, Albuterol, Atrovent, Epinephrine

BRONCHOSPASM - PEDIATRIC

PROTOCOL PROCEDURE: Flow of protocol presumes that condition is continuing. If the patient is in distress, immediate rapid transport is preferred with treatment performed en route.

Basic Life Support

EMT

ABCs / ROUTINE MEDICAL CARE –

- Place in position of comfort
- Assess airway and support ventilation with appropriate airway adjuncts as indicated.
- HP-CPR as indicated
- Apply oxygen if pulse oximetry <94% or signs of hypoperfusion or respiratory distress.
- Allow patient to administer their own respiratory medications as prescribed by their physician, see **Field Policy: BLS Medication Administration**.

Continuous Positive Airway Pressure (CPAP) may be utilized in patients 12 yrs or older - if mask fits appropriately

(Contraindications: decreased LOC, no gag reflex, vomiting, facial trauma, hypotension)

- Start with valve at 5 cmH₂O setting and 100% O₂ flow rate.
- Titrate to patient's condition. If patient's respiratory status does not improve CPAP pressure may be increased my 2.5 cmH₂O every 5 minutes, to a maximum pressure setting of 15 cmH₂O if required.
- Monitor and record vital signs every 5 minutes.
- Be prepared for possible hypotension. If hypotension develops, decrease valve setting.

If patient continues in severe distress, consider assisted breathing with O₂ and BVM

LOSOP

EMT working under Local Optional Scope

FOR EXTREMIS PROXIMATE TO BRONCHOSPASM (Low SpO₂, Inability to speak, and/or ALOC):

Pediatric Epinephrine Auto-injector, or;

Epinephrine 1:1000 (0.1mg/mL):

- 15-30 kg (33-66 lb.): 0.15 mg IM (lateral thigh is preferred). Repeat in 10 minutes prn.
- > 30 kg (> 66 lb): 0.3 mg IM
- > 50 kg (> 110 lb): 0.5 mg IM

Advanced Life Support

Paramedic

FIRST LINE:

DUONEB (2.5 mg albuterol and 0.5 Mg Ipratropium (Atrovent) in normal saline). **Do not repeat.**

If symptoms persist, initiate continuous **ALBUTEROL 2.5 mg** in 3 mL normal saline (Max. 15 mg/hr). Breathing treatments may be given concurrently with CPAP

NORMAL SALINE – establish an IV/IO/saline lock.

FOR EXTREMIS PROXIMATE TO BRONCHOSPASM (Low SpO₂, Inability to speak, and/or ALOC):

EPINEPHRINE 1:1,000 (1 mg/mL) 0.01 mg/kg IM. Maximum single dose 0.5mg. (Repeat dose in 10 minutes prn).

FOR STRIDOR: (Moderate to severe croup/airway burns/laryngeal edema/anaphylaxis)

NEBULIZED EPINEPHRINE 1:1,000 (1mg/mL) – 0.5 mg/kg, maximum single dose of 5mg (5mL) via nebulizer over 10 minutes. Repeat q 10 minutes prn. For doses less than 3mL dilute with NS to 5mL to allow for nebulization (May repeat q 10 minutes).