

RESPIRATORY – BRONCHOSPASM ASTHMA/COPD/CRUOUP	
ADULT	PEDIATRIC (≤ 34 KG)
BLS	
<ul style="list-style-type: none"> Universal Protocol #601 Pulse Oximetry <ul style="list-style-type: none"> O₂ administration per Airway Management Protocol #602 May assist with patient's prescribed medication, inhaler, etc. 	
BLS Elective Skills (Approved Providers Only)	
• CPAP per Airway Management Protocol #602	• None
BLS Optional Scope Skill (Approved Providers Only)	
ASTHMA Moderate to Severe Distress <ul style="list-style-type: none"> Epinephrine 1:1,000 0.3 mg IM <ul style="list-style-type: none"> No repeat 	ASTHMA Moderate to Severe Distress (≥ 15 kg) <ul style="list-style-type: none"> Epinephrine 1:1,000 0.15 mg IM – anterolateral thigh <ul style="list-style-type: none"> No repeat
ALS Standing Orders	
BRONCHOSPASM/ASTHMA/COPD <p>Mild</p> <ul style="list-style-type: none"> Albuterol 2.5-5 mg via HHN/Mask with adjunct over 5-10 min <ul style="list-style-type: none"> repeat as needed <p>Moderate</p> <ul style="list-style-type: none"> Albuterol 2.5-5 mg via HHN/Mask/CPAP/BVM with adjunct over 5-10 min <p><u>Combined with:</u></p> <ul style="list-style-type: none"> Ipratropium Bromide 500 mcg via HHN/Mask/CPAP/BVM with adjunct over 5-10 min <ul style="list-style-type: none"> Repeat once after 20 minutes <p>Severe distress</p> <ul style="list-style-type: none"> <u>In addition to previous therapies:</u> Magnesium Sulfate IV 2 Gm over 20 minutes – see notes for mixing instructions <ul style="list-style-type: none"> May repeat once 5 minutes after initial dose complete <p>Severe distress – unresponsive to previous therapies:</p> <ul style="list-style-type: none"> Epinephrine 1:1,000 0.01 mg/kg IM – not to exceed 0.3 mg <ul style="list-style-type: none"> Additional doses – Base Hospital order only Age less than 70 Has history of Asthma or COPD No signs or symptoms suggestive of MI/STEMI No history of angina, CVA, MI 	BRONCHOSPASM/ASTHMA <p>Mild</p> <ul style="list-style-type: none"> Albuterol 2.5-5 mg via HHN/Mask with adjunct over 5-10 min <ul style="list-style-type: none"> repeat as needed <p>Moderate</p> <ul style="list-style-type: none"> Albuterol 2.5-5 mg via HHN/Mask/BVM with adjunct over 5-10 min <p><u>Combined with:</u></p> <ul style="list-style-type: none"> Ipratropium Bromide 250 mcg via HHN/Mask/BVM with adjunct over 5-10 min <ul style="list-style-type: none"> Repeat once after 20 minutes <p>Severe distress</p> <ul style="list-style-type: none"> <u>In addition to previous therapies:</u> Magnesium sulfate IV 50 mg/kg max of 2 Gm over 20 minutes – see notes for mixing instructions <ul style="list-style-type: none"> Additional doses – base order only <p>Severe Distress - unresponsive to previous therapies:</p> <ul style="list-style-type: none"> Epinephrine 1:1,000 0.01 mg/kg IM – not to exceed 0.3 mg <ul style="list-style-type: none"> Additional doses – Base Hospital order only
CRUOUP	

	<p>Stable</p> <ul style="list-style-type: none"> • Humidified oxygen via HHN/Mask or blow-by
Base Hospital Orders Only	
Unresponsive to previous therapy	Unresponsive to previous therapy
<ul style="list-style-type: none"> • Epinephrine 1:1,000 0.01 mg/kg IM – subsequent doses • Epinephrine 1:10,000 0.01 mg/kg (0.1 mL/kg) slow IV titrated – not to exceed 0.5 mg • If Magnesium Sulfate toxicity is suspected, contact base for Calcium Chloride orders – 1 Gm slow IVP • As needed 	<ul style="list-style-type: none"> • Epinephrine 1:10,000 0.01 mg/kg (0.1 mL/kg) slow IV titrated – not to exceed 0.3 mg • If Magnesium Sulfate toxicity is suspected, contact base for Calcium Chloride orders – 20mg/kg slow IVP not to exceed 500 mg <p style="text-align: center;">CROUP</p> <ul style="list-style-type: none"> • Albuterol 2.5-5 mg via HHN/Mask/BVM over 5-10 min <ul style="list-style-type: none"> ○ repeat per base order • As needed
Notes	
<p>BRONCHOSPASM – narrowing of lower airways, may be associated with: wheezes, cough, and chest tightness</p> <ul style="list-style-type: none"> • Can be caused by: respiratory infections, exposures (toxins, allergens, fire/smoke), exercise, stress, cold dry air • Evaluate history of: chronic lung disease, prescribed medications, allergies, chronic infections (TB, Coccidioidomycosis) 	
<p>Magnesium Sulfate Mixing Instructions:</p> <p>For adults - 1 Gm IV in 100cc normal saline over 10 minutes, immediately repeated once for a total dose of 2 Gm IV</p> <p>For Pediatric – appropriate weight-based dosing of ≤ 1 Gm in 100 mL of NS over 20 minutes. If patient appropriate weight-based dose is > 1 Gm, administer 1 Gm in 100 mL NS over 10 minutes followed by remaining Magnesium Sulfate in additional 100 mL bag over 10 minutes.</p> <p>Respiratory depression following Magnesium Sulfate administration is more likely with a too-fast IV infusion rate - ensure proper drip rate</p> <p>Indications for Magnesium Sulfate toxicity:</p> <ul style="list-style-type: none"> • Respiratory Depression • New onset altered mental status • New onset cardiac rate and rhythm changes • Hyporeflexia (decrease or loss of deep tendon reflexes) 	