**Medical Control Guideline: DRUG REFERENCE – ALBUTEROL** **Ref. No. 1317.3**

**Classification**

Sympathomimetic, $B_2$ Receptor Agonist, Bronchodilator

**Prehospital Indications**

Cardiac Dysrhythmia: suspected hyperkalemia causing bradycardia
Respiratory Distress: bronchospasm caused by acute asthma, bronchitis, bronchiolitis, COPD, drug overdose, near drowning, pulmonary edema, and/or toxic gas inhalation
Pulmonary Edema/CHF: persistent wheezing despite CPAP
Traumatic Injury: suspected hyperkalemia in the setting of crush injury or potential for development of crush syndrome (administer prior to release of crushed tissue)

**Other Common Indications**

None

**Adult Dose**

Cardiac Dysrhythmia/Crush – Evidence of or suspected hyperkalemia
**5mg (6mL) via neb**, repeat continuously until hospital arrival
Crush – at risk for Crush Syndrome
5 minutes prior to extrication: **5mg (6mL) via mask nebulization** x2 for a total dose of 10mg
Respiratory Distress, Pulmonary Edema/CHF with wheezing, Allergic Reaction with wheezing, Inhalation Injury with wheezing
**5mg (6mL) via neb**
May repeat x2 prn for wheezing

**Pediatric Dose**

Crush – Evidence of or suspected hyperkalemia
**5mg (6mL) via neb**, repeat continuously until hospital arrival
Crush – at risk for Crush Syndrome
5 minutes prior to extrication: **5mg (6mL) via neb**, repeat immediately x1
Respiratory Distress, Allergic Reaction with wheezing, Inhalation Injury with wheezing
< 1 year of age **2.5mg (3mL) via neb**
≥ 1 year of age **5mg (6mL) via neb**
Repeat x2 prn, maximum 3 total doses prior to Base contact

**Mechanism of Action**

Selective beta-2 adrenergic agonist that causes relaxation of smooth muscles in the bronchial tree, decreasing airway resistance, facilitating mucous drainage and increasing vital capacity
Shifts potassium intracellular. Has mild beta-1 activity with mild effect on heart rate.

**Pharmacokinetics**

Onset 5-15 min inhaled, Duration 3-6 hours for bronchial smooth muscle relaxation, Duration 3-4 hours for hyperkalemia shifting potassium intracellular

**Contraindications**

Do not use for patients with a known hypersensitivity/allergy to the drug

**Interactions**

Administer with extreme caution to patients being treated with MAO inhibitors or tricyclic antidepressants
Beta blocking agents and Albuterol may each inhibit the effects of the other, monitor closely

**Adverse Effects**

Anxiety/Tremors
Hypertension
Hypokalemia
Palpitations/Tachycardia

**Prehospital Considerations**

- Young children 2-6 years old may be more prone to adverse effects
- Don't assume patients have administered their own drug properly. Do not include home doses of albuterol in your total drug administration consideration.