Classification
Sympathomimetic, B2 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.