

Succinylcholine

Classification

 **HIGH ALERT MEDICATION**

Depolarizing neuromuscular blocking agent

Indications

■ CCP: Paralysis to facilitate intubation

Contraindications

- Known or suspected hyperkalemia
- Hypersensitivity
- Family history of malignant hyperthermia
- Myopathies associated with elevated creatine kinase
- Use following the acute phase of injury following major burns, multitrauma, crush injuries, denervation of skeletal muscle, or upper motor neuron injury.

Adult dosages

■ CCP: Paralysis to facilitate intubation

- 1.5 mg/kg rapid IV/IO push (based on actual body weight)
- Do not repeat dose

Pediatric Considerations And Dosing

■ CCP: Paralysis to facilitate intubation

- 2 mg/kg rapid IV/IO push (based on actual body weight)
- Do not repeat dose

How Supplied

test

Mechanism Of Action

Depolarizes motor endplate by binding to acetylcholine receptors.

Pharmacokinetics

Following IV administration:

- Onset of paralysis: 60 seconds
- Duration: 4-6 minutes (shorter in children)
- Metabolism: plasma pseudocholinesterase
- Excretion: urine

Adverse Effects

Cardiovascular: Bradycardia (higher with second dose; more frequent in children), cardiac arrhythmia, hypertension, hypotension, malignant hyperthermia, tachycardia

Dermatologic: Skin rash

Endocrine & metabolic: Hyperkalemia

Gastrointestinal: Sialorrhea

Hypersensitivity: Anaphylaxis

Neuromuscular & skeletal: Fasciculations, jaw tightness, myalgia (postoperative), rhabdomyolysis (with possible myoglobinuric acute renal failure)

Ophthalmic: Increased intraocular pressure

Respiratory: Apnea, respiratory depression (prolonged)

Warning And Precautions

Use caution in children and adolescents. Acute rhabdomyolysis with hyperkalemia, ventricular arrhythmias and cardiac arrest have been reported (rarely) in children with undiagnosed skeletal muscle myopathy (eg, Duchenne muscular dystrophy); occurs soon after administration and requires immediate treatment of hyperkalemia. Prolonged resuscitation may be required. Use in children should be reserved for emergency intubation when immediate airway control is necessary (eg, laryngospasm, difficult airway, full stomach), or IM use when a suitable vein is inaccessible.

- Anaphylaxis: Severe anaphylactic reactions (some life-threatening and fatal) have been reported; immediate treatment (including epinephrine 1 mg/mL) for anaphylactoid and/or hypersensitivity reactions should be available during use. Use caution in patients with previous anaphylactic reactions to other neuromuscular blocking agents.
- Bradycardia: Risk of bradycardia may be increased with second dose and may occur more in children. Occurrence may be reduced by pretreating with anticholinergic agents (eg, atropine).
- Increased intraocular pressure (IOP): May increase IOP; avoid use in patients in which an increase in IOP is undesirable (eg, narrow-angle glaucoma, penetrating eye injuries).
- Intracranial pressure: May cause a transient increase in intracranial pressure (adequate anesthetic induction prior to administration of succinylcholine will minimize this effect).
- Intra-gastric pressure: May increase intra-gastric pressure, which could result in regurgitation and possible aspiration of stomach contents.
- Malignant hyperthermia: Use may be associated with acute onset of malignant hyperthermia; risk may be increased with concomitant administration of volatile anesthetics.
- Neuromuscular cross-sensitivity: Cross-sensitivity with other neuromuscular-blocking agents may occur; use extreme caution in patients with previous anaphylactic reactions to other neuromuscular-blocking agents.
- Vagal tone: May increase vagal tone.

