

<b>Alert</b>	Intubation, suction and ventilation equipment MUST be ready prior to administration of suxamethonium. A medical officer/nurse practitioner (preferably two personnel) experienced in advanced neonatal airway management techniques should be present when the medication is being administered. Risk of cardiac arrest from hyperkalemic rhabdomyolysis. There are two preparations. Chloride anhydrous salt (SAS product) equates to 110mg in 2 mL of suxamethonium chloride which is 10% more suxamethonium than suxamethonium chloride dihydrate salt (Australian TGA registered product)
<b>Indication</b>	Elective endotracheal intubation.
<b>Action</b>	Short-acting, depolarising neuromuscular blocker. It acts as an acetylcholine antagonist at nicotinic acetylcholine receptors at neuromuscular junctions, resulting in persistent depolarisation of the motor end plate.
<b>Drug Type</b>	Neuromuscular blocking agent (depolarising)
<b>Trade Name</b>	Suxamethonium Chloride (dihydrate) Injection BP, Succinolin Chloride (anhydrous) Injection, MercuryPharma Suxamethonium Chloride (dihydrate) Injection
<b>Presentation</b>	100 mg/2 ml ampoule. *See "Alert" section above to account for brand difference.
<b>Dosage/Interval</b>	IV (preferred): 2 mg/kg (up to 3 mg/kg) IM (only if IV is not accessible): 3–4 mg/kg <sup>9</sup> (onset of action can be delayed up to 3 minutes and duration of action is up to 15 minutes)
<b>Dose adjustments</b>	Therapeutic hypothermia: No information on the dose adjustment, but has been used. ECMO: Not applicable. Renal impairment: use with caution as use associated with hyperkalaemia. Hepatic impairment: may prolong duration of action. Avoid repeated doses.
<b>Route</b>	IV, IM
<b>Maximum Dose</b>	IV: 3 mg/kg/dose; IM: 4 mg/kg/dose
<b>Preparation</b>	IV: Dihydrate salt: Draw up 1 mL (50 mg of suxamethonium) and add 9 mL sodium chloride 0.9% to make final volume 10 mL with a concentration of 5 mg/mL.  Anhydrous salt: Draw up 0.9 mL (50 mg of suxamethonium) and add 9.1 mL sodium chloride 0.9% to make a final volume of 10 mL with concentration of 5 mg/mL.  IM: Administer undiluted.
<b>Administration</b>	IV: Rapid injection at proximal cannula site. IM: Administer in anterior thigh muscle.
<b>Monitoring</b>	Continuous cardiorespiratory monitoring. Monitor temperature, blood pressure, oxygenation and assisted ventilator status.
<b>Contraindications</b>	Hyperkalaemia Family history of malignant hyperthermia Skeletal muscle myopathy Hypersensitivity to suxamethonium
<b>Precautions</b>	Anaphylaxis: Severe anaphylactic reactions (some life-threatening and fatal) have been reported. Cross-sensitivity with other neuromuscular-blocking agents may occur; use extreme caution in patients with previous anaphylactic reactions. Bradycardia: May increase vagal tone. Risk of bradycardia may be increased with second dose and may occur more often in children. Occurrence may be reduced by pre-treating with anticholinergic agents (e.g. atropine). May increase intraocular pressure. May cause a transient increase in intracranial pressure. May increase intragastric 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 anaesthetics.

<b>Drug Interactions</b>	May enhance the effect of other agents with neuromuscular-blocking properties: acetylcholinesterase inhibitors; magnesium, quinidine, quinine, vancomycin, cyclophosphamide monohydrate, ciclosporin, esmolol, lincosamide, loop diuretics. Aminoglycosides: May enhance the respiratory depressant effect of aminoglycosides. Opioid analgesics: Suxamethonium may enhance the bradycardic effect of opioid analgesics. Cardiac glycosides: May enhance the arrhythmogenic effect of cardiac glycosides
<b>Adverse Reactions</b>	Bradycardia is common in neonates and children, especially after a second dose of suxamethonium. May be prevented by administration of atropine prior to administration of suxamethonium. Hyperkalaemia Prolonged paralysis in infants with deficiency of pseudocholinesterase. Hypersensitivity reactions Malignant hyperthermia Management of suxamethonium overdose and/or toxicity is supportive.
<b>Compatibility</b>	Dextrose 5%, dextrose 10%, sodium chloride 0.9%, dextrose 5% in sodium chloride 0.9%, dextrose 5% in sodium chloride 0.45%, sodium chloride 0.45%. Y-site administration: potassium chloride, propofol, vitamin B complex with C.
<b>Incompatibility</b>	Y site administration: Amino acid solution, lipid emulsion, heparin, alkaline solutions with pH > 8.5.
<b>Stability</b>	Suxamethonium Chloride (dihydrate) Injection BP brand: once removed from fridge, is stable below 25 °C for 1 month only. Discard any unused product after that time, do not return to the fridge. Infusion solution: use within 24 hours
<b>Storage</b>	Refrigeration at 2°C to 8°C. DO NOT FREEZE. For Succinolin and MercuryPharma brands: protect from light.
<b>Special Comments</b>	Poorly absorbed from gastrointestinal tract – must be given IM or IV. Rapidly and completely hydrolysed by hepatic and plasma pseudocholinesterase. Very rapid onset (30–60 seconds) and short duration of action (3–5 minutes) with IV administration. Continuous administration over a prolonged period of time may result in irreversible blockade (phase II block). Should not be used without additional sedation.
<b>Evidence summary</b>	Refer to full version.
<b>Practice points</b>	Suxamethonium in combination with other drugs (analgesics and vagolytic agents) resulted in superior intubation conditions and a shorter procedure duration. <sup>1-6</sup> (Level II, Grade A) Chloride anhydrous salt equates to 110mg in 2 mL of suxamethonium chloride which is 10% more suxamethonium than suxamethonium chloride dihydrate salt.
<b>References</b>	Refer to full version.

VERSION/NUMBER	DATE
Original	12/12/2016
Current version 2.0	15/06/2020
REVIEW (5 years)	15/06/2025

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