

SUXAMETHONIUM - Succinylcholine

Trade Name	Suxamethonium chloride, (Martindale) [®] . (Max Health)
Class	Muscle relaxant (depolarising; “ultra”-short-acting).
Mechanism of Action	Depolarisation of skeletal neuromuscular junctions by acetylcholine receptor agonism. Rapid onset and short duration of action.
Indications	For procedures requiring short-term muscle relaxation. Intubation
Contraindications	Family history of malignant hyperthermia; disorders of pseudocholinesterase or myopathies associated with raised creatine kinase. Known hypersensitivity to suxamethonium Severe hyperkalaemia Severe burns Acute narrow-angle glaucoma.
Supplied As	100mg / 2mL ampoule.
Dilution	No dilution required
Dosage	3mg/kg/dose (range 1-3mg/kg/dose)
Interval	As required
Administration	Bolus IV injection after prior administration of opiate.
Compatible With	Solution: Dextrose 5%, Dextrose 10%, sodium chloride 0.9%. Terminal Y-site: aciclovir, adrenaline, alfentanil, amikacin, aminophylline, amiodarone, amphotericin (liposomal), atropine, azithromycin, aztreonam, calcium, chloride, calcium gluconate, cefazolin, cefotaxime, cefotetan, cefoxitin, ceftazidime, ceftriaxone, cefuroxime, chlorothiazide, chlorpromazine, clindamycin, dexamethasone, dexmedetomidine, digoxin, dobutamine, dopamine, ephedrine, epoetin alfa, erythromycin, famotidine, fluconazole, furosemide, gentamicin, heparin, hydrocortisone, imipenem /cilastatin, lidocaine, magnesium sulphate, methylprednisolone, metronidazole, midazolam, milrinone, morphine, moxifloxacin, noradrenaline, octreotide, ondansetron, phenylephrine, piperacillin/tazobactam, potassium chloride, pyridoxine, sodium acetate, thiamine, ticarcillin, tobramycin, vancomycin, vasopressin, voriconazole
Incompatible With	Benzyl penicillin, diazepam, diazoxide, ganciclovir, hydralazine, indometacin, insulin, lipid, phenobarbital, phenytoin, propofol, pyridoxine, sodium bicarbonate, sulphamethoxazole/trimethoprim, TPN.

Interactions	<p>Duration of action of suxamethonium is increased by:</p> <p>Drugs (aminoglycosides, clindamycin, vancomycin, high-dose glucocorticoids, inhaled anaesthetics, lignocaine, propranolol, phenytoin, carbamazepine, frusemide, chlorthiazide)</p> <p>Disease states (acidosis, hyperkalemia, hypothermia, haemodilution, liver disease).</p> <p>Duration of action of suxamethonium may be decreased by diazepam</p> <p>Suxamethonium may cause arrhythmias if given with digoxin.</p>
Monitoring	<p>Effects within 30-60 seconds. Effect for 2-10 minutes.</p> <p>Must have a cardiorespiratory and BP monitor.</p> <p>Intubation, suction and ventilation equipment must be ready prior to administration.</p>
Stability	Discard unused solution and opened ampoules immediately after use.
Storage	Refrigerate at 2 - 8°C (do not freeze).
Adverse Reactions	<p>Bradycardia (vagal effect), transient rise in BP and serum potassium; bronchospasm; skin flushing; cardiac arrhythmias; anaphylaxis.</p> <p>Increased intragastric and intraocular pressures.</p> <p>Prolonged non-depolarising block with repeated injections.</p>
Metabolism	Plasma cholinesterase; 10% excreted unchanged by kidney.
Comments	<p>In the rare situation where an infant develops malignant hyperthermia in association with treatment with suxamethonium the recommended management is as follows;</p> <p>Malignant hyperthermia (Temperature can increase by 1°C/5mins to 43°C; rigidity & acidosis):</p> <p>Rx: Dantrolene 1mg/kg/5mins IV (up to 10mg/kg total) plus subsequent 1-3mg/kg QID (IV/PO) for 1-3days.^{3,4}</p>
References	<ol style="list-style-type: none"> 1. John Spence Nursery Drug Database web site http://www.cs.nsw.gov.au/rpa/neonatal/ 2. New Ethicals Catalogue (Adis International); May 2001. 38(1):166. 3. Oxford Handbook of Clinical Medicine, 3rd Ed. 1993: 86. 4. Shann F. "Drug Doses" pocket dose guide 1998 (10th Ed.):16. 5. Barrington, KJ "Premedication for neonatal intubation." American J. of Perinatology 1998 Apr; 15(4): 213-6. 6. Parfitt K (Ed), Martindale The Extra Pharmacopoeia, 32nd edition, 1999 7. www.medsafe.govt.nz 8. Trissell's Handbook of Injectable Drugs 10th Edition and in www.micromedexsolutions.com 9. Neofax in www.micromedexsolutions.com

Updated By	Jan Klimek, Kirsten Simonsen; June 2002 P Schmidt & B Robertshawe August 2005 A Lynn, B Robertshawe Dec 2012 (re-order profile) Sep 2014 remove dilution A Lynn, B Robertshawe Feb 2022 (compatibility update) A Lynn, B Robertshawe Feb 2025 (routine update)
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