

SUXAMETHONIUM

Indication	<ul style="list-style-type: none"> Short duration muscle paralysis/relaxation for elective endotracheal intubation¹ 	
INTRAVENOUS	Presentation	<ul style="list-style-type: none"> Ampoule: 100 mg in 2 mL
	Dosage²	<ul style="list-style-type: none"> 2 mg/kg
	Preparation	<ul style="list-style-type: none"> Draw up 50 mg (1 mL) and make up to 10 mL total volume with 0.9% sodium chloride <ul style="list-style-type: none"> Concentration now equal to 5 mg/mL
	Administration	<ul style="list-style-type: none"> Draw up prescribed dose IV injection over 10 to 30 seconds³ Flush with sodium chloride 0.9% following administration³
Special considerations	<ul style="list-style-type: none"> Contraindication <ul style="list-style-type: none"> Muscular dystrophies, congenital myopathies or neurological disease involving extensive muscle wasting¹ Cholinesterase deficiencies and severe liver disease² If family history of malignant hyperthermia¹ Caution <ul style="list-style-type: none"> Electrolyte imbalance: acid-base imbalance and dehydration can increase effect Intracranial lesions, known hyperkalaemia² and severe sepsis due to the risk of hyperkalaemia causing cardiac arrhythmias (suxamethonium causes an immediate rise in serum potassium) If repeat dose indicated, escalate for airway management Continuous infusions unsafe in neonates due to the risk of malignant hyperthermia³ UAC route: discuss with neonatologist/paediatrician prior to use 	
Monitoring	<ul style="list-style-type: none"> Intubation equipment immediately available and prepared for use Continuous cardiorespiratory, oxygenation¹ Temperature¹, BP¹ 	
Compatibility	<ul style="list-style-type: none"> Fluids <ul style="list-style-type: none"> 5% glucose³, 10% Dextrose⁴, 0.9% sodium chloride³ Y-site <ul style="list-style-type: none"> At 20 mg/mL suxamethonium, heparin sodium³ 	
Incompatibility	<ul style="list-style-type: none"> Fluids <ul style="list-style-type: none"> No information³ Drugs <ul style="list-style-type: none"> Azathioprine³, benzylpenicillin³, indometacin³, phenobarbital (phenobarbitone)³, sodium bicarbonate³ 	
Interactions	<ul style="list-style-type: none"> Nil significant 	
Stability	<ul style="list-style-type: none"> Ampoule <ul style="list-style-type: none"> Store at 2–8 °C (refrigerate)³ Diluted solution <ul style="list-style-type: none"> Use immediately. Discard remainder³ Solution is clear and colourless³ 	
Side effects	<ul style="list-style-type: none"> Blood pathology: hyperkalaemia¹ Circulatory: profound bradycardia or asystole.² Risk reduced with pre-treatment with atropine.¹ Arrhythmias² Nervous: malignant hyperthermia² Respiratory: prolonged respiratory depression¹, apnoea¹ 	
Actions	<ul style="list-style-type: none"> Rapid onset (30–60 seconds) short duration (5–10 minutes²) depolarising neuromuscular blocking agent² 	
Abbreviations	BP: blood pressure, IV: intravenous; UAC: umbilical arterial catheter;	
Keywords	Intubation, elective intubation, endotracheal intubation, neuromuscular blocking agent, suxamethonium, succinylcholine	



Quick guide: suxamethonium IV bolus

Suxamethonium dose is 2 mg/kg	Round weight to nearest 0.5 kg							
Use the IV reconstituted concentration of 5 mg/mL	0.5 kg	1 kg	1.5 kg	2 kg	2.5 kg	3 kg	3.5 kg	4 kg
Dose (mg) for approximate weight	1 mg	2 mg	3 mg	4 mg	5 mg	6 mg	7 mg	8 mg
Administration volume (mL)	0.2 mL	0.4 mL	0.6 mL	0.8 mL	1 mL	1.2 mL	1.4 mL	1.6 mL

The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

References

1. IBM Micromedex® Neofax®. Succinylcholine. In: IBM Micromedex® Neofax®/Pediatrics (electronic version). IBM Watson Health, Greenwood Village, Colorado, USA. April 2019 [cited 2019 July 18]. Available from: <http://neofax.micromedexsolutions.com/neofax>.
2. British National Formulary for Children (BNFC) online. Suxamethonium. [Internet]: Royal Pharmaceutical Society; October 2018 [cited 2019 July 18]. Available from: www.medicinescomplete.com.
3. Australian Injectable Drugs Handbook. Nicolette Burrridge, Keli Symons, editors. Suxamethonium. 7th ed. [Internet]. New South Wales: Society of Hospital Pharmacists of Australia (SHPA); May 2019 [cited 2019 July 18]. Available from: <http://aidh.hcn.com.au>
4. Trissels™ 2 Clinical Pharmaceutics Database. IV Compatibility Module. [online database] 2019 [cited 2019 May 12]. Available from: www.micromedexsolutions.com/micromedex2/librarian.

Document history

ID number	Effective	Review	Summary of updates
NMedQ19.031-V1-R24	01/12/2019	01/12/2024	Endorsed by Queensland Neonatal Services Advisory Group (QNSAG)
NMedQ19.031-V2-R24	20/02/2020	01/12/2024	Intext reference moved to clarify dosage is 2 mg/kg (not 2 mg/kg ²)