South Australian Neonatal Medication Guidelines

suxamethonium

100mg/2mL injection

This is a High Risk Medication ⚠

Only muscle-relax a neonate if confident that the airway can be maintained and that hand ventilation can be provided.

Suxamethonium and pancuronium look similar. Suxamethonium can be kept out of the fridge and thus separating both medications to eliminate confusion.

If a neuromuscular abnormality of any kind is suspected suxamethonium should not be used (see contraindications)

Synonyms

Succinylcholine chloride

Government of South Australia
SA Health

ISBN number: 978-1-74243-434-6
Endorsed by: South Australian Maternal & Neonatal Clinical Network
Contact: South Australian Neonatal Medication Guidelines Workgroup at:
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Dose and Indications

Intubation (Depolarising Muscle Relaxant)

Intravenous

2mg/kg/dose, repeated when required

Preparation and Administration

Intravenous

Dilute 1mL of suxamethonium (50mg/mL) with 9mL sodium chloride 0.9%(to a total volume 10mL), shake vigorously to dissolve.The solution contains:

Dose	1mg	2mg	3mg	4mg	5mg	6mg
Volume	0.2mL	0.4mL	0.6mL	0.8mL	1mL	1.2mL

Administer over 10 to 30 seconds.

Compatible Fluids

Glucose 5%, glucose/sodium chloride and sodium chloride 0.9%

Adverse Effects

Common

Muscle twitching, bradycardias (particularly with repeated dosing), excessive salivation, increased intraocular, intracranial and intragastric pressures.

Infrequent

Tachycardia, arrythmias, hypertension, hypotension, bronchospasm, jaw rigidity, prolonged neuromuscular blockade and hyperkalaemia.

Rare

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Malignant hyperthermia[1], myoglobinaemia, rhabdomyolysis

Monitoring

- Vital signs frequently, blood pressure continuously

Practice Points

- May cause reactive bradycardia and increased salivation, however this is uncommon with single doses
- Atropine should be available and may be used prior to suxamethonium for intubation to avoid bradycardia
- Suxamethonium is stored in a locked cupboard as a safety net to avoid confusion with a similar looking medication. It is stable at room temperature for up to 3 months.
- Do not give in the presence of significant hyperkalaemia
- Do NOT mix suxamethonium in a syringe with any other drug as it is unstable in alkaline solutions and decomposes in solutions with a pH greater than 4.5

- Contraindicated:
  - In suspected muscular dystrophies, congenital myopathies or neurological disease involving extensive muscle wasting;
  - Where there is a personal or family history of malignant hyperthermia;
  - After the acute phase of injury following major burns, multiple trauma or spinal injury due to the risk of suxamethonium-induced hyperkalaemia;
  - Conditions such as electrolyte imbalance, severe sepsis, uraemia, burns, degenerative neuromuscular disease or denervation of skeletal muscle due to disease or CNS injury
- Dosage may need reduction if used with other anaesthetic or neuromuscular blocking drugs
- Muscle relaxants do nothing to reduce pain and distress.

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[1]**Malignant hyperthermia** is a rare hypermetabolic response of skeletal muscle, triggered by certain drugs resulting in increased O_2 consumption and CO_2 production, tachypnoea, tachycardia, arrhythmias, muscle rigidity, rising temperature and metabolic acidosis.

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Version control and change history

PDS reference: OCE use only

Version	Date from	Date to	Amendment
1.0	November 2012	current	Original version

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