South Australian Neonatal Medication Guidelines

suxamethonium

100mg/2mL injection

Note

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

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

Dose and Indications

Intubation (Depolarising Muscle Relaxant)

Intravenous

2mg/kg/dose, repeated when required

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NeoMed@health.sa.gov.au

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Preparation and Administration

Intravenous

Dilute 1mL of suxamethonium (50mg/mL) with 9mL sodium chloride 0.9% (to a total volume of 10mL), shake vigorously to dissolve. The solution contains 5mg/mL suxamethonium.

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

Malignant hyperthermia[1], myoglobinaemia, rhabdomyolysis

Monitoring

- Vital signs frequently, blood pressure continuously

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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.

[1]**Malignant hyperthermia** is a rare hypermetabolic response of skeletal muscle, triggered by certain drugs resulting in increased O2 consumption and CO2 production, tachypnoea, tachycardia, arrhythmias, muscle rigidity, rising temperature and metabolic acidosis.

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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