neostigmine

500micrograms/mL 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.

SA Health does not accept responsibility for the quality or accuracy of material on websites linked from this site and does not sponsor, approve or endorse materials on such links.

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

Dose and Indications

1mg = 1000micrograms

Write all doses in micrograms

Reversal of Neuromuscular Blockade

(e.g. from pancuronium, vecuronium)

Intravenous

50micrograms/kg/dose, in addition to atropine (see atropine dosing guidelines), in separate syringes

Myasthenia Gravis

Consult Neurologist prior to initiating treatment.

Test dose - Intramuscular

Premedication with atropine is recommended (refer to atropine dosing guideline).

150micrograms/kg

Short Term Management – Intramuscular / Subcutaneous

150micrograms/kg (30 minutes before a feed) every 6 to 8 hours increasing the dose on clinical response.

Obtain specialist advice for long term use or oral therapy.

neostigmine
500micrograms/mL injection

Preparation and Administration

Intravenous or Intramuscular or Subcutaneous

Dose	50micrograms	100micrograms	200micrograms	300micrograms	400micrograms
Volume	0.1mL	0.2mL	0.4mL	0.6mL	0.8mL

Intravenous give undiluted over 1 minute.

Intramuscular and subcutaneous give undiluted.

Discard remaining solution.

Compatible Fluids

Glucose 5%, glucose 10%, glucose/sodium chloride solutions, sodium chloride 0.9%

Adverse Effects

Common

Increased salivation, vomiting, diarrhoea, abdominal cramps

Infrequent

Rash, anaphylaxis

Over treatment may lead to cholinergic crisis with increased cholinergic effects (e.g. excessive sweating, miosis, nystagmus, bradycardia, hypotension, increased muscle weakness leading to fasciculation and paralysis), central nervous system effects (e.g. ataxia, seizures, tremor, agitation and coma), bronchospasm and respiratory failure.

Atropine is used to control side effects.

Monitoring

- Respiratory and cardiovascular status

Practice Points

- With large doses or intravenous injections, bradycardia may occur, consequently, simultaneous parenteral administration of atropine (in separate syringe) may be advisable. Atropine should always be available to counteract severe cholinergic reactions.

Document Ownership & History

Developed by: SA Maternal, Neonatal & Gynaecology Community of Practice
Contact: Health.NeoMed@sa.gov.au
Endorsed by: SA Safety and Quality Strategic Governance Committee
Next review due: 05/07/2023
ISBN number: 978-1-74243-948-8
PDS reference: CG046
Policy history: Is this a new policy (V1)? **N**
Does this policy amend or update and existing policy? **Y**
If so, which version? V1
Does this policy replace another policy with a different title? **N**
If so, which policy (title)?

Approval Date	Version	Who approved New/Revised Version	Reason for Change
5/7/18	V2	SA Health Safety and Quality Strategic Governance Committee	Formally reviewed in line with 5 year scheduled timeline for review.
11/12	V1	SA Maternal & Neonatal Community of Practice	Original SA Maternal & Neonatal Community of Practice approved version.