South Australian Neonatal Medication Guidelines

trimethoprim-sulfamethoxazole

16mg-80mg/mL injection, 8mg-40mg oral mixture

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

Synonyms

Co-trimoxazole, trimethoprim compound.

Dose and Indications

Dose according to trimethoprim content

Infection due to susceptible organisms

Intravenous, Oral

Postnatal Age (days)	Dose and Frequency (hours)
< 8 days	4mg/kg every 24 hours
≥ 8 days	4mg/kg every 12 hours

Prophylaxis for Pnemocystis carinii pneumonia (PCP) in immune deficiency

Oral

4mg/kg every 24 hours

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NeoMed@health.sa.gov.au

Government of South Australia
SA Health

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Preparation and Administration

Intravenous

Dilute 1mL trimethoprim 16mg-sulfamethoxazole 80mg/mL injection with 24mL compatible fluid (Total volume 25mL).

The resulting solution contains 0.64mg/mL trimethoprim

Doses refer to trimethoprim component

Dose	4mg	6mg	8mg	10mg	12mg	16mg
Volume	6.3mL	9.4mL	12.5mL	15.6mL	18.8mL	25mL

Start the infusion within 30 minutes of dilution. Infuse over 60 to 90 minutes.

Discard if visible turbidity or crystallisation appears in the intravenous solution during the preparation or infusion

Intravenous – fluid restricted

If neonate fluid restricted dilute 1mL trimethoprim 16mg-sulfamethoxazole 80mg/mL injection with 9mL glucose 5% or sodium chloride 0.9% (Total volume 10mL).

The resulting solution contains 1.6mg/mL trimethoprim

Doses refer to trimethoprim component

Dose	4mg	6mg	8mg	10mg	12mg	16mg
Volume	2.5mL	3.75mL	5mL	6.25mL	7.5mL	10mL

Infuse over 60 minutes.

This intravenous solution is only stable for one hour.

Discard if visible turbidity or crystallisation appears in the intravenous solution during the preparation or infusion

Oral

Oral mixture contains trimethoprim 8mg-sulfamethoxazole 40mg/mL. Doses refer to trimethoprim component

Dose	4mg	6mg	8mg	10mg	12mg	16mg
Volume	0.5mL	0.75mL	1mL	1.25mL	1.5mL	2mL

Give with feeds to minimise gastrointestinal irritation.

Compatible Fluids

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

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Adverse Effects

Common

Fever, nausea, vomiting, diarrhoea, anorexia, rash, itch, hyperkalaemia, thrombocytopenia (rarely significant)

Infrequent

Photosensitivity, blood dyscrasias, eg neutropenia

Rare

Megaloblastic anaemia, methaemoglobinaemia, erythema, hypoglycaemia, hepatitis, crystalluria, urinary obstruction with anuria/oliguria, Clostridium difficule- associated disease, aseptic meningitis

Hypersensitivity may present with fever, cough, rash, eosinophilia; the most serious effects include anaphylaxis, Stevens-Johnson syndrome, toxic epidermal necrolysis, serum sickness-like syndrome, lupus-like syndrome, pneumonitis, hepatitis, interstitial nephritis, systemic vasculitis and pancytopenia.

Monitoring

- complete blood picture and folate status during prolonged or high-dose treatment
- renal function during prolonged treatment, particularly in pre-existing renal impairment
- serum potassium, beginning on day 3, if renal impairment or on other medication that can cause hyperkalaemia.

Practice Points

- Trimethoprim causes potassium retention. Hyperkalaemia can occur with usual doses but is more likely to be clinically significant as dose increases. Average onset is 4–5 days. Risk factors are high dose and renal impairment.
- Contraindicated in glucose-6-phosphate dehydrogenase deficiency and bone marrow suppression
- Use with CAUTION in premature and newborn infants with:
  - jaundice as there is a risk of kernicterus
  - hypoalbuminaemia
  - hepatic or renal impairment. In these circumstances it is recommended that a reduced or less frequent dosage is used
- Trimethoprim on its own is now usually preferred to combined therapy with co-trimoxazole in urinary tract infection because of the side effects associated with the sulphonamide component

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1.0	May 2013	current	Original version

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