#### South Australian Neonatal Medication Guidelines

# TrimETHOPRIMsulfamethoxazole

## 80mg-400mg/5mL injection 40mg-200mg/5mL oral mixture © Department for Health and Wellbeing, Government of South Australia. All rights reserved.

#### 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

Use is not recommended during the first 4 weeks of life due to the risk of kernicterus, except in the treatment of severe infections.

#### Infection due to susceptible organisms

#### Intravenous, Oral

Postnatal Age (days)	Dose and Frequency (hours)
≤ 7 days	4mg/kg every 24 hours
> 7 days	4mg/kg every 12 hours

#### Prophylaxis for urinary tract infection

Dose according to trimethoprim content

#### Oral

2mg/kg once a day



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## **Preparation and Administration**

#### Intravenous

Dilute 1mL (trimethoprim 16mg-sulfamethoxazole 80mg) of the 80mg-400mg/5mL injection with 24mL sodium chloride 0.9% (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 is fluid restricted, dilute 1mL (trimethoprim 16mg-sulfamethoxazole 80mg) of the 80mg-400mg/5mL injection with 15mL glucose 5% (total volume 16mL).

The resulting solution contains 1mg/mL trimethoprim

Doses refer to trimethoprim component

Dose	4mg	6mg	8mg	10mg	12mg	16mg	
Volume	4mL	6mL	8mL	10mL	12mL	16mL	

Prepare the solution immediately prior to infusion. Infuse over 60 minutes.

This intravenous solution is only stable for **one hour** as precipitation may occur in 1-2 hours.

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

#### Oral

Oral mixture 40mg-200mg/5mL 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

Use with caution due to risk of bilirubin displacement and kernicterus (refer to practice points for additional risk factors and contraindications).

#### Common

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

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.

#### Infrequent

Photosensitivity, blood dyscrasias (e.g. neutropenia)

#### Rare

Megaloblastic anaemia, methaemoglobinaemia, erythema, hypoglycaemia, hepatitis, crystalluria, urinary obstruction with anuria/oliguria, *Clostridium difficile*- 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

- > Where treatment is prolonged (e.g. greater than 7 days):
  - Monitor potassium, renal function and blood count

#### **Practice Points**

- > Trimethoprim prescribed on its own (e.g. for urinary tract infections) is usually preferred to combined therapy with sulfamethoxazole because of the side effects associated with the sulphonamide component
- Where no other oral option available, short term use is acceptable pending sourcing of trimethoprim suspension or other oral suspension. See caution below.
- 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 (sulphonamides displace bilirubin from plasma albumin)
  - patients with severe haematological disorders (folic acid deficiency and blood dyscrasias may worsen). Contraindicated in megaloblastic anaemia due to folate deficiency
  - patients with renal impairment reduced or less frequent dosage is recommended
  - patients with hepatic impairment
  - known hyperkalaemia and/or concomitant use of medications that increase the risk of hyperkalaemia



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## **Document Ownership & History**

**Developed by:** SA Maternal, Neonatal & Gynaecology Community of Practice

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31/8/2017	V2.0	SA Health Safety and Quality Strategic Governance Committee	Complete review
31/05/2013	V1.0	SA Maternal & Neonatal Clinical Network	Original SA Maternal & Neonatal Clinical Network approved version.