#### South Australian Neonatal Medication Guidelines

# paracetamol

# 10mg/mL injection, oral liquid, suppositories

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#### 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**

Acetaminophen

#### Dose and Indications

#### **Analgesic / Antipyretic**

#### Intravenous

10mg/kg per dose, frequency varies depending upon current corrected age (postnatal age PLUS gestational age) see below.

#### Oral / Rectal

15mg/kg per dose, frequency varies depending upon current corrected age (postnatal age PLUS gestational age) see below

Corrected Age (weeks) [Gestational Age PLUS Postnatal Age]	Frequency (hours)	Maximum number of doses in 24 hours	
<32	every 8 to 12 hours	2	
32 to 36	every 6 to 8 hours	3	
≥37	every 4 to 6 hours	4	

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### Preparation and Administration

#### Intravenous

Dose	5mg	10mg	20mg	30mg	40mg
Volume	0.5mL	1mL	2mL	3mL	4mL

Infuse over at least 15 minutes.

Intravenous solution if diluted with compatible fluid, is stable for 1 hour

Discard remaining solution.

Intravenous solution should be stored at room temperature

#### Oral

There are various strengths available, refer to local guidelines for the specific strength available at your institution or unit.

#### Rectal

Do not cut suppositories to make part rectal dose (i.e. doses that are not neatly multiples of suppository strength). Consider:

- > diluting oral mixture 1:1 with water for rectal doses; or
- > rounding the dose to the nearest multiple of 30mg or 60mg; if it is still a safe dose
- > give the paracetamol orally or intravenously
- > 30mg and 60mg suppositories are not commercially available but can be prepared by selected pharmacy departments.

# Compatible Fluids

Glucose 5% (+/- potassium), glucose / sodium chloride combinations (+/- potassium), sodium chloride 0.9% (+/- potassium)

#### Adverse Effects

#### Common

Increased aminotransferases (see Hepatotoxicity below)

#### Rare

Rash, drug fever, hypersensitivity reactions, neutropenia, thrombocytopenia, pancytopenia, hypotension (IV).

Hepatoxicity can occur after prolonged administration (> 48 hours) at therapeutic doses, or in patients with severe renal or hepatic impairment.

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### Monitoring

> Liver function tests with prolonged administration

#### **Practice Points**

- > A cautious approach is recommended with premature infants or in infants with hepatic or renal impairment
- > Intravenous paracetamol should only be used when oral or rectal routes are not appropriate

#### References

- Anderson BJ, van Lingen RA, Hansen TG, Lin Y, Holford NHG. Acetaminophen Developmental Pharmacokinetics in Premature Neonates and Infants A Pooled Population Analysis. Anesthesiology 2002; 96:1336–45
- Allegaert K, Anderson BJ, Naulaers G, de Hoon J, Verbesselt R, Debeer A, Devlieger H, Tibboel D. Intravenous paracetamol (propacetamol) pharmacokinetics in term and preterm neonates. Eur J Clin Pharmacol (2004) 60: 191–197
- 3. Correspondence from Bristol-Myers Squibb regarding compatibilities

## 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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