South Australian Neonatal Medication Guidelines

paracetamol injection, oral liquid, suppositories

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Synonyms

Acetaminophen.



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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

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



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- > 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.

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









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- > 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
- > 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	

