

Neonatal Medication Guideline

Clinical Guideline

Paracetamol

Policy developed by: SA Maternal, Neonatal & Gynaecology Community of Practice

Approved SA Health Safety & Quality Strategic Governance Committee on:
11 August 2017

Next review due: 31 August 2020

Summary The purpose of this guideline is to guide nursing, midwifery, medical and pharmacy staff in the dosing and administration of paracetamol

Keywords Paracetamol, neonatal medication guideline, analgesic, antipyretic, fever, pain, hepatotoxicity, PDA

Policy history Is this a new policy? **N**
Does this policy amend or update an existing policy? **Y v1.0**
Does this policy replace an existing policy? **N**
If so, which policies? **Paracetamol Neonatal Medication Guideline**

Applies to All Health Networks
CALHN, SALHN, NALHN, CHSALHN, WCHN, SAAS

Staff impact All Clinical, Medical, Midwifery, Nursing, Students, Allied Health, Emergency, Mental Health, Pathology, Pharmacy

PDS reference CG049

Version control and change history

Version	Date from	Date to	Amendment
1.0	Nov 2012	May 2017	Original version
2.0	11 Aug 2017	Current	Complete review

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paracetamol

10mg/mL injection, oral liquid, 30mg and 60mg 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

Loading dose

Loading dose 20mg/kg, followed by maintenance dosing at the next dosing interval

Maintenance Dose

Corrected Age (weeks) [Gestational Age PLUS Postnatal Age]	Dose	Frequency (hours)
28 to 36 weeks	10mg/kg/dose	Every 8 hours
≥ 37 weeks	10mg/kg/dose	Every 6 hours

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South Australian Neonatal Medication Guidelines Workgroup at:
Health:NeoMed@sa.gov.au

paracetamol

10mg/mL injection, oral liquid, suppositories

Oral / Rectal

Loading dose

Loading dose 20mg/kg

Maintenance Dose

Corrected Age (weeks) [Gestational Age PLUS Postnatal Age]	Dose	Frequency (hours)
28 to 32 weeks	15mg/kg/dose	Every 12 hours
33 to 36 weeks	15mg/kg/dose	Every 8 hours
≥ 37 weeks	15mg/kg/dose	Every 6 hours

Patent Ductus Arteriosus (PDA) closure

May be indicated after treatment failure with ibuprofen/indometacin or where NSAIDs are contraindicated. There is limited evidence for paracetamol use for PDA closure. Oral paracetamol is preferred over intravenous paracetamol as there is more evidence available.

Intravenous

Due to the scarcity of evidence in the neonatal population, PDA closure doses should not exceed intravenous analgesic doses and do not require a loading dose.

Corrected Age (weeks) [Gestational Age PLUS Postnatal Age]	Dose	Frequency (hours)
<37 weeks	10mg/kg/dose	Every 8 hours for 3 days
≥ 37 weeks	10mg/kg/dose	Every 6 hours for 3 days

Oral

All ages: 15mg/kg per dose, 6 hourly for 3 days

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

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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 are made at the women's and children's hospital and can be purchased by other public hospitals.

Compatible Fluids

Glucose 5%, glucose / sodium chloride combinations, sodium chloride 0.9% and potassium chloride in these combination bags

Adverse Effects

Common

Increased aminotransferases (see Hepatotoxicity below)

Rare

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

Hepatotoxicity 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

- > Maintenance doses should be started 6-12 hours after a loading dose depending on the frequency recommended in the dosing table
- > 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
- > There is no safety data for intravenous paracetamol in neonates under 28 weeks, use intravenous paracetamol cautiously in this population

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References

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