

benzylpenicillin

600mg & 1.2g injection

© Department for Health and Ageing, 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.

SA Health does not accept responsibility for the quality or accuracy of material on websites linked from this site and does not sponsor, approve or endorse materials on such links.

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

Penicillin, penicillin G

Dose and Indications

600mg is equivalent to 1 million units

Infection due to susceptible organisms

Empiric treatment of Group B Streptococcus

Intravenous, Intramuscular

60mg/kg/dose

Corrected Gestational Age (weeks)	Postnatal Age (days)	Frequency (hours)
< 30	0-28	Every 12 hours
	>29	Every 8 hours
30-36	0-14	Every 12 hours
	>15	Every 8 hours
37-44	0-7	Every 12 hours
	>8	Every 8 hours

benzylpenicillin

600mg & 1.2g injection

Meningitis (confirmed following a lumbar puncture)

Intravenous

90mg/kg/dose

Corrected Gestational Age (weeks)	Postnatal Age (days)	Frequency (hours)
< 37	0–7	Every 12 hours
	>8	Every 8 hours
>37	All	Every 8 hours

Length of treatment should be guided by pathology and clinical picture; however in proven sepsis treatment should continue for a minimum of 7 days. For meningitis, continue treatment for a minimum of 14 days.

Preparation and Administration

Intravenous

Vial Strength (mg)	Volume of Water for Injection to add (mL)	Final Concentration of benzylpenicillin (mg/mL)
600mg	5.6mL	100mg/mL
1.2g	11.2mL	100mg/mL

Example calculations:

Dose	30mg	60mg	90mg	120mg	150mg	180mg
Volume	0.3mL	0.6mL	0.9mL	1.2mL	1.5mL	1.8mL

Administer as an intravenous infusion over at least 3 minutes for doses of 60mg/kg.

Administer as an intravenous infusion over 30 minutes for doses of 90mg/kg.

Discard remaining solution.

Intramuscular

Vial Strength (mg)	Volume of Water for Injection to add (mL)	Final Concentration of benzylpenicillin (mg/mL)
600mg	1.6mL	300mg/mL
1.2g	3.2mL	300mg/mL



benzylpenicillin

600mg & 1.2g injection

Example calculations:

Dose	30mg	60mg	90mg	120mg	150mg	180mg
Volume	0.1mL	0.2mL	0.3mL	0.4mL	0.5mL	0.6mL

Discard remaining solution

Compatible Fluids

Glucose 5%, sodium chloride 0.9%

Adverse Effects

Common

Diarrhoea

Infrequent

Vomiting, Clostridium difficile-associated disease

Rare

Black tongue, electrolyte disturbances, neurotoxicity (seizures), bleeding, blood dyscrasias

Anaphylactic shock is not commonly seen in neonates.

Monitoring

- > Consider monitoring sodium and potassium levels when giving prolonged treatment courses.

Practice Points

- > IV penicillins and cephalosporins can inactivate IV aminoglycoside antibiotics (eg. gentamicin). Preferably separate doses by 1 hour. If it is not possible to separate doses, flush the line well with sodium chloride 0.9%, before and after giving each medication.
- > Significant CNS toxicity including seizures may occur with high doses and rapid infusions.



benzylpenicillin

600mg & 1.2g injection

Document Ownership & History

Developed by:	SA Maternal, Neonatal & Gynaecology Community of Practice
Contact:	Health.NeoMed@sa.gov.au
Endorsed by:	SA Safety and Quality Strategic Governance Committee
Next review due:	2/3/2023
ISBN number:	978-1-74243-944-0
PDS reference:	CG014
Policy history:	<p>Is this a new policy (V1)? N</p> <p>Does this policy amend or update an existing policy? Y</p> <p>If so, which version? V2</p> <p>Does this policy replace another policy with a different title? N</p> <p>If so, which policy (title)?</p>

Approval Date	Version	Who approved New/Revised Version	Reason for Change
2/3/18	V3	SA Safety and Quality Strategic Governance Committee	Formally reviewed to include 1.2g formulation.
28/4/17	V2	SA Safety and Quality Strategic Governance Committee	Formally reviewed in line with 1-5 year scheduled timeline for review.
1/11/12	V1	SA Maternal & Neonatal Clinical Network	Original SA Maternal & Neonatal Clinical Network approved version.

