

AMOXYCILLIN

NB: Ballarat Health Services does NOT stock ampicillin routinely. The Australian Antibiotic Therapeutic Guidelines considers amoxicillin and ampicillin to be therapeutically equivalent when used parenterally.

DESCRIPTION AND INDICATION FOR USE

Amoxicillin is a moderate spectrum penicillin antibiotic that is active against Gram-positive and some Gram-negative organisms, but is destroyed by beta-lactamase-producing bacterial strains. Amoxicillin or ampicillin may be used in the treatment of infections due to *Listeria* species.

DOSE

IV, IM: Standard infection: 25 mg/kg/dose
Severe infection (meningitis, septicaemia*): 50 mg/kg/dose

Interval:

Gestational Age:	< 37 weeks	≤ 28 days	12 hourly
		> 28 days	8 hourly
	≥ 37 weeks	≤ 7 days	12 hourly
		> 7 days	8 hourly

* Dosage interval may be decreased from 8 to 6 hourly in severe infection

RECONSTITUTION/DILUTION

Ampoule = 1000 mg (powder volume = 0.8 mL per 1000 mg vial)

IV: Reconstitute 1000 mg vial with 9.2 mL of Water for Injection (concentration = 100 mg/mL)

Withdraw exact dose and further dilute to at least **50 mg/mL** with 0.9% sodium chloride

IM: Reconstitute with 5.2 mL of Water for Injection (concentration = 166.6 mg/mL)

Single dose vial – prepare a fresh ampoule for each dose and discard any remaining solution

ROUTE AND METHOD OF ADMINISTRATION

IV: Give as a slow push over 3 minutes, OR
Give slowly over 30 minutes via syringe pump

IM: Inject well within the body of a relatively large muscle

COMPATIBILITY INFORMATION

Please contact your ward pharmacist for information on drugs or fluids not appearing in the table below. Medications that are not routinely used in the Special Care Nursery have not been included in this table and may be incompatible.

	Compatible	Incompatible
Fluids	5% Dextrose, 0.9% Sodium chloride	Blood products
Drugs	No information – infuse alone	Aminoglycoside antibiotics, Midazolam, Potassium chloride, Sodium bicarbonate

Amoxicillin is **physically incompatible** with **aminoglycoside antibiotics** (eg: gentamicin) – it is preferable to separate administration by at least 1 hour. If it is not possible to separate doses, ensure IV lines are adequately flushed with 0.9% sodium chloride before and after administration of these antibiotics

SIDE EFFECTS

- Nausea, vomiting, diarrhoea
- Hypersensitivity reactions including urticaria, rashes, angioedema, anaphylaxis
- Rarely – hepatitis, cholestatic jaundice, crystalluria
- High doses and/or rapid administration may result in CNS toxicity including convulsive seizures
- Disturbance to serum electrolytes (**Note: IV preparation contains 3.3 mmol of sodium per 1000 mg**)

SPECIAL PRECAUTIONS

- Known hypersensitivity to beta-lactam antibiotics (penicillins, cephalosporins, carbapenems)
- Caution in patients with poor renal function
- Caution in hypernatraemic patients due to high sodium content

NURSING RESPONSIBILITIES

- Observations/Monitoring:
 - Careful observation of IV site
 - Monitor urine output
 - Observe for side effects
- Ensure slow intravenous administration to avoid CNS toxicity
- A transient pink or slight opalescence may appear during reconstitution
- **Single dose vial** – prepare a fresh ampoule for each dose and discard any remaining solution