BENZYLPENICILLIN (BenPen[®])

(Penicillin G)

DESCRIPTION AND INDICATION FOR USE

Benzylpenicillin is a beta-lactamase sensitive penicillin antibiotic, useful in the treatment of many infections caused by gram positive organisms and some gram negative organisms. It is also effective against spirochaetes. Benzylpenicillin is used in combination with gentamicin for the empirical treatment of sepsis in neonates less than 48 hours old.

DOSE

IV, IM:		ard infection: Meningitis (susp	ected or proven):	60 mg/kg/dose 120 mg/kg/dose
Interval: Gestational A	Age:	< 37 weeks:	12 hourly	\geq 37 weeks and \leq 7 days: 12 hourly \geq 37 weeks and $>$ 7 days: 8 hourly

RECONSTITUTION/DILUTION

Ampoule = 600 mg (powder volume = 0.4 mL per 600 mg vial)

IV: Reconstitute 600 mg vial with 5.6mL of Water for Injection (concentration = 100mg/mL)

IM: Reconstitute 600 mg vial with 1.6 mL of Water for Injection (concentration = 300 mg/mL)

ROUTE AND METHOD OF ADMINISTRATION

IV: Give slowly over 30 minutes via syringe pump

In emergency situations, give slowly over at least 5 minutes

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	
Drugs	Calcium gluconate, frusemide, ranitidine	Aminoglycoside antibiotics, Amphotericin B, Sodium bicarbonate, Phenytoin sodium, Vancomycin

Benzylpenicillin 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

- Hypersensitivity reactions including urticaria, fever, rashes, angioedema, anaphylaxis
- High doses may cause CNS toxicity including lethargy, twitching and seizures (rare)
- Disturbances to serum electrolytes (Note: IV preparation contains 1.7 mmol of sodium per 600 mg)

SPECIAL PRECAUTIONS

- 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