

Benzylpenicillin

Indication	First line antibiotic if streptococcal infections are suspected or proven Initial treatment of suspected sepsis acquired at birth
Dose	50mg/kg 12 hourly if <7 days of age 8 hourly if 7 to 28 days of age 6 hourly if >28 days of age
Route of administration	IV over 3-5 minutes Doses >50mg/kg should be given by IV infusion over 15 minutes to avoid CNS toxicity (differs from BNFC advice recommending that 50mg/kg doses be given as an infusion)
To prepare	600mg vial – powder for reconstitution Displacement value 0.4mL Preferred diluent: water for injection To make 100mg/mL: Add 5.6mL of water for injection to vial and withdraw required dose Some units have syringes pre-prepared by pharmacy of differing concentrations – the above instructions are for reconstituting from powder.
Compatibilities	Glucose 5%, glucose 10%, sodium chloride 0.9%, clarithromycin, fluconazole, gentamicin, hydrocortisone, metronidazole, morphine sulphate, ranitidine.
Known incompatibilities	Aminophylline, amphotericin B, dopamine, flucloxacillin, heparin, potassium chloride, tranexamic acid.
Notes	Benzylpenicillin is bactericidal - acting by interfering with bacterial cell wall synthesis. Diffuses readily into body tissues and fluids but penetration of the cerebrospinal fluid is limited. Can be given IM but this is painful and this route should only be used in emergencies and the following strengths should be used: Add 1.6mL of water for injections to 600mg vial to produce a final concentration of 300mg/mL If there is no compatibility information for specific drugs, do not assume compatibility. For incompatible drugs or those with no compatibility information use a separate line or, for short infusions, flush well between drugs. For side-effects see the BNFC.
References	Leeds Teaching Hospitals neonatal prescribing and administration monograph, Handbook on Injectable Drugs Trissel et al, Medusa, BNFC, Medicines Complete.

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Clinicians must accept individual responsibility for using this information and prescribing safely.