Gentamicin for Paediatrics

Available strengths

10mg/mL & 40mg/mL

Recommended infusion

Fluid

Sodium chloride 0.9% or glucose 5%

Stability

Use immediately when prepared on the ward

Administration

Intravenous infusion via syringe driver over 30-60 minutes

Slow intravenous injection over 2 - 3 minutes for neonates only

Indication & doses

Septicaemia, biliary-tract infection, acute pyelonephritis and pneumonia

Neonate less than 7 days after birth (irrespective of gestation)

Initially 5mg/kg every 36 hours, then adjusted according to serum-gentamicin concentration (prescribe on the once off section of the TPAR to reduce the risk of prescribing / administration errors associated with 36 hourly dosing).

Neonate 7 days or more after birth

Initially 5mg/kg every 24 hours, then adjusted according to serum-gentamicin concentration.

Child 1 month – 18 years

Initially 7mg/kg every 24 hours, then adjusted according to serum-gentamicin concentration.

Monitoring

Gentamicin trough levels should be taken pre-second dose. The 2nd dose should usually be given without waiting for the level unless there is evidence of renal impairment.

Target pre-dose trough level for neonates = <2mg/litre

Target pre-dose trough level for children = <1mg/litre

Levels should be re-checked once a week for patients who are on treatment for longer than this.

See overleaf for additional information
Additional information

To avoid excessive dosage in obese children, use ideal weight for height to calculate parenteral dose and monitor serum-gentamicin concentration closely.

The once daily regimen described above is not suitable for use in endocarditis, meningitis and other CNS infections, cystic fibrosis or children with creatinine clearance of less than 20mg/minute/1.73m² – see BNFC for further guidance.

Use with caution in renal impairment. Monitor renal function in all patients.

Where a child was born pre-term, gestational age should be used to determine whether to use 5mg/kg or 7mg/kg dosing (i.e. a child should only receive 7mg/kg if their gestational age is 42 weeks or greater).

See BNFC for information on the multiple daily dose regimen.

Drafted by: Iain Hewitt Date: 21/10/2014

Updated by: Valerie Dick Date: 21/10/2014

Approved by: Dr Margaret Peebles, Dr Linda Clerihew and Catherine Borland