

Vancomycin Dosing Guidelines (Adults)

Indication

Vancomycin is a 2nd line glycopeptide agent relative to teicoplanin. Vancomycin may be used if there is resistance or adverse effects with teicoplanin.

CALCULATIONS

1. ESTIMATING CREATININE CLEARANCE (CrCl)

CrCl (ml/min) = (140 – age) x IBW (kg) x F where F = 1.23 (male)

serum creatinine (µmol/L) 1.04 (female)

2. IDEAL BODY WEIGHT (IBW):

IBW = x kg + (2.3 x every inch over 5ft) where x = 50kg (male), 45.5 kg (female)

RENAL FUNCTION / AGE <i>(do NOT use eGFR from CDR)</i>	DOSAGE AND ADMINISTRATION	WHEN TO TAKE LEVELS	MONITORING
CrCl >50ml/min OR < 65 years	1g IV every 12 hours <i>in 200ml of NaCl 0.9% or Dex 5% over 100 minutes</i>	Pre-dose (trough) Immediately before next dose	Take pre and post levels around 3 rd or 4 th dose AND GIVE NEXT DOSE (do not wait for level to be reported)
CrCl 20 – 50ml/min OR ≥ 65 years	1g IV every 24 hours <i>in 200ml NaCl 0.9% or Dex 5% over 100 minutes</i>		Take pre and post levels around 2 nd dose AND GIVE NEXT DOSE (do not wait for level to be reported)
CrCl < 20ml/min	1g IV stat <i>in 200ml NaCl 0.9% or Dex 5% over 100 minutes</i>		Take trough level at 24 hours DO NOT GIVE another dose until level < 10mg/L
On Haemofiltration / Haemodialysis	Contact Microbiology / Ward pharmacist		Contact Microbiology / Pharmacy

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THERAPEUTIC RANGE

Pre-dose (trough): 10 – 15mg/L

Note: Post (peak) levels are not required for standard dosing as in above table.
Monitoring of peak levels may be required for doses less than 1g – discuss with microbiology.

SUBSEQUENT LEVELS AND DOSES

- Check levels twice weekly as above, unless there worsening renal function, severe illness and recent dosage adjustment where levels should be checked daily or as advised.
- If serum level is not available before the next dose is due, give the next dose to ensure continuity of therapy **ONLY** if the patient has reasonable renal function (see table above) and the urine output has not fallen. Contact Pharmacy/Microbiology for advice.
- If for any reason a level is missed or is not taken appropriately, a trough should be taken immediately before the next dose.