

## 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<br><i>(do NOT use eGFR from CDR)</i> | DOSAGE AND ADMINISTRATION   | WHEN TO TAKE LEVELS                                      | MONITORING   |
|---|---|--|--|
| CrCl >50ml/min<br>OR<br>< 65 years                        | 1g IV every 12 hours<br><i>in 200ml of NaCl 0.9% or Dex 5%<br/>over 100 minutes</i> | <b>Pre-dose (trough)</b><br>Immediately before next dose | Take pre and post levels around 3 <sup>rd</sup> or 4 <sup>th</sup> dose<br><b>AND GIVE NEXT DOSE</b><br>(do not wait for level to be reported) |
| CrCl 20 – 50ml/min<br>OR<br>≥ 65 years                    | 1g IV every 24 hours<br><i>in 200ml NaCl 0.9% or Dex 5%<br/>over 100 minutes</i>    |  | Take pre and post levels around 2 <sup>nd</sup> dose<br><b>AND GIVE NEXT DOSE</b><br>(do not wait for level to be reported)                    |
| CrCl < 20ml/min   | 1g IV stat<br><i>in 200ml NaCl 0.9% or Dex 5%<br/>over 100 minutes</i>              |  | Take trough level at 24 hours<br><b>DO NOT GIVE</b> 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.