

Vancomycin Dosing and Monitoring Guidelines - *Adult Patients*

Standard vancomycin dosing (target trough 10-15mcg/mL)

1) Determine Dose

Total Body Weight	Dose	Infusion time
50-80 kg	1000mg	Infuse over 60 minutes
>80 – 100 kg	1250mg	Infuse over 90 minutes
100-120 kg	1500mg	Infuse over 2 hours

2) Determine Dosing Interval

Creatinine Clearance	Dosing Interval
> 50 mL/min	q12h
10- 50 mL/min	q24-48h
< 10 mL/min	Dose intermittently when serum concentration is 10-15 mcg/mL

**for extremes of weight (<50kg, >120kg), seek pharmacist consultation for optimal dose*

High-intensity vancomycin dosing (target trough 15-20mcg/mL)

Vancomycin loading dose of 20mg/kg (rounded to nearest 250mg), then:

CrCl (mL/min)	Weight (kg)			
	≤ 60	61 - 79	80 - 99	≥ 100
≤ 10	Draw level (re-dose when level < 20mcg/mL)			
11 – 29	1.25g q48h	1.5g q48h	1.75g q48h	1g q24h
30 – 49	1g q24h	1.25g q24h	1.5g q24h	1.5g q24h
50 – 69	1.5g q24h	1g q12h	1g q12h	1.25g q12h
>70	1g q12h	1.25g q12h	1.5g q12h	1.75g q12h
Consider if: >85mL/min and < 45yrs old	750mg q8h	1g q8h	1.25g q8h	1.25g q8h

**for extremes of weight (<50kg, >120kg), seek pharmacist consultation for optimal dose*

Vancomycin Serum Concentration Monitoring

Indications for serum concentrations:

- Difficult-to-treat infections (*endocarditis, osteomyelitis, meningitis, hospital acquired pneumonia caused by *S. aureus*, pathogen MIC ≥ 1mcg/mL)
- Concurrent nephrotoxins (e.g. aminoglycoside)
- Poor renal function

When to draw serum concentrations

- Patients receiving scheduled doses: Obtain a steady-state, pre-dose (“trough”) concentration prior to the 3rd or 4th dose.
- Patients with poor renal function:
 - *Creatinine Clearance <10mL/min and/or on hemodialysis (HD):*
Draw concentration q48h. Establish scheduled dosing based on levels and frequency of re-dosing.
 - *Continuous renal replacement (e.g. CVVHD), Hi-flux HD, peritoneal dialysis:*
Draw concentration q24h. Establish scheduled dosing based on levels and frequency of re-dosing.
 - Rapidly changing renal function: Check trough or random level periodically.

Target concentrations:

- Post-dose or “peak” concentrations are NOT indicated.
- Minimum acceptable pre-dose (“trough”) for any indication is 10mcg/mL.
- Trough for most patients: 10-15mcg/mL
- Difficult-to-treat infections*: 15-20mcg/mL