

Vancomycin Pharmacist Standard Orders Patient Specific Monitoring (for Adult & Non-Dialysis Patients)

*These orders are to be used as a guideline and do not replace sound clinical judgement and professional practice standards.
Patient allergy and contraindications must be considered when completing these orders.*

Automatically activated (If not in agreement with an order cross out and initial).
 Requires a check(✓) for activation

Allergies: Unknown No Yes (describe) _____
Height (cm): _____ **Weight (kg):** _____ **Age (years):** _____
Serum creatinine (sCr): _____ u/moL Stable Unstable

Fill out appropriate spaces

Step 1: Record Vancomycin Levels with date and time collected:

Vancomycin Level #1: _____ mg/L _____/_____/_____ at ____:____
Vancomycin Level #2: _____ mg/L _____/_____/_____ at ____:____

Step 2: Use Excel Spreadsheet/App to determine patient-specific PK parameters:

Calculated ke	
Calculated half-life	
Calculated CrCl	
Calculated Vd	

Step 3: Select appropriate Vancomycin maintenance dose ($AUC_{24} = 500$) based on Excel spreadsheet/App

Dose: _____ mg IV every _____ hours

Step 4: Test your recommended dose and record expected Peak and Trough for monitoring purposes using Excel spreadsheet/App

Expected Peak: _____ mg/L (less than 40 mg/L)

Expected Trough: _____ mg/L (range 10 to 25 mg/L)

Trough LOWER than expected	Trough HIGHER than expected
<ul style="list-style-type: none"> Check if a dose was missed or an incorrect dose given Check timing of levels and dose (trough done too late/beyond dosing interval) Check renal function – see if it improved (improved clearance) Determine if Vd increased (accumulation of fluid, critical illness, pregnancy) Patient characteristics (young, healthy individuals metabolize faster) 	<ul style="list-style-type: none"> Check if a dose was given in error or an increased dose given Check timing of levels relative to dose given (i.e. was the level done while a dose was running, was the level too close to the dose given) Check renal function – did it decline (reduced clearance) Determine if Vd decreased (fluid shifts, volume losses, shifts in protein binding, amputation present etc.)

Recommended Dose:

Vancomycin _____ mg IV every _____ hours

Note: Please round vancomycin dose to the nearest 250 mg increment

PHARMACIST'S SIGNATURE: _____	PRINTED NAME: _____	Date: _____	Time: _____
Order Transcribed		FAX TO PHARMACY	
Date: _____ Time: _____ Init: _____		Date: _____ Time: _____	
		Init: _____	

Vancomycin Pharmacist Standard Orders Population Based Estimation (for Adult & Non-Dialysis Patients)

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Allergies: Unknown No Yes (describe) _____

Height (cm): _____ Weight (kg): _____ Age (years): _____

Serum creatinine (sCr): _____ u/moL Stable Unstable

Fill out appropriate spaces

Note: If vancomycin levels were inappropriately collected or missing and therefore a maintenance dose and renal function cannot be determined, use the following table to determine a maintenance dose (based on population estimates)

STEP 1: Estimate renal function using Cockcroft and Gault equation

$$\text{CrCl (mL/min)} = \frac{(140 - \text{Age}) * 80}{\text{sCr } (\mu\text{mol/L})} \times 0.85 \text{ if female}$$

STEP 2: Select maintenance dose based on CrCl calculated above and round to the nearest 250mg increment

Maintenance dose (Target AUC₂₄ 500) Based on CrCl

CrCl (mL/min/72kg)	Total Daily Dose (based on dosing body weight)	# Divided Doses per day
120-140	35mg/kg/day	2 or 3 (Q8H or Q12H)
90-119	30-35mg/kg/day	2 or 3 (Q8H or Q12H)
60-89	25mg/kg/day	1 or 2 (Q12H or Q24H)
40-59	20mg/kg/day	1 or 2 (Q12H or Q24H)
20-39	10-15mg/kg/day	1 or 2 (Q12H or Q24H)
10-19	750mg Q48H (40-60kg) 8mg/kg/day (61-120kg)	1 (Q24H)

Use DOSING WEIGHT calculated to determine dose

Calculated CrCl _____ mL/min

Dosing weight _____ kg x _____ mg/kg/day (see table above)

Total Daily Dose _____ mg **Divided** into _____ doses/day

Recommended Dose:

Vancomycin _____ mg IV every _____ hours

Note: Please round vancomycin dose to the nearest **250 mg** increment

PHARMACIST'S SIGNATURE: _____ PRINTED NAME: _____ Date: _____ Time: _____

Order Transcribed
Date: _____ Time: _____ Init: _____

FAX TO PHARMACY
Date: _____ Time: _____
Init _____