ADULT VANCOMYCIN ORDER FORM

Allergies (Reactions) _____ Age _____ Sex _____ Ht _____ Wt _____ kg

Diagnosis _____ SCr _____ Cl_{Cr} _____

Ideal body weight _____ kg

☐ **Initiation of Vancomycin: Loading Dose** *(Use Actual Body Weight.* Round dose to nearest 250 mg, not to exceed 2.5 grams per dose)

Step 1:	☐ Vancomycin loading dose 25 mg/kg = _____ mg IV x 1, to be given:
Step 2:	☐ Mandatory Pharmacy Consultation required for patients with: • Changing volume of distribution (patients in septic shock, resolving septic shock or diuretic use). • Abnormal volume of distribution (pregnancy, morbidly obese, amputee or burn patients). • Poor renal function (hemodialysis, peritoneal dialysis or unstable renal function). • Concurrent nephrotoxic medication administration (ACE-inhibitors, acyclovir, aminoglycosides, amphotericin, diuretics, IV contrast, NSAIDs or vasopressors). • Patients with a normal calculated clearance but serum creatinine does not reflect estimated renal function (anuric patient with initial normal creatinine, patient with high creatinine but improving urine output with hydration or patients with muscle disease).

If Step 2 is checked, do NOT advance to Maintenance Dosing in Step 3.

Maintenance Dose: (Goal trough 15-20 mcg/mL) Round dose to nearest 250 mg, not to exceed 2 grams per dose)

Step 3: USE ACTUAL BODY WEIGHT UNLESS OBESE (Refer to reverse, reference page 2)	☐	Cl_{Cr} >70 mL/min Q 8 hours	Vancomycin 15 mg/kg = _____ mg IV q 8 h, Starting on: trough level 30 min prior to 4th dose, to be drawn:
	☐	Cl_{Cr} 40-69 mL/min Q 12 hours	Vancomycin 15 mg/kg = _____ mg IV q 12 h, Starting on: trough level 30 min prior to 4th dose, to be drawn:
	☐	Cl_{Cr} 20-39 mL/min Q 24 hours	Vancomycin 10 mg/kg = _____ mg IV q 24 h, Starting on: trough level 30 min prior to 3rd dose, to be drawn:
	☐	Cl_{Cr} 10-19 mL/min Q 48 hours	Vancomycin 10 mg/kg = _____ mg IV q 48 h, Starting on: trough level 30 min prior to 2nd dose, to be drawn:
	☐	Cl_{Cr} <10 mL/min	Consult Pharmacy for maintenance dose.

Labs:

Step 4:	☐	SCr daily with AM Labs for _____ consecutive days (for pts with unstable renal function or changing volume of distribution as in sepsis or resolving sepsis)
	☐	SCr Q Monday, Wednesday, Saturday with AM Labs (for patients with stable renal function)

☐ **Vancomycin Dose Modification: (Goal trough 15-20 mcg/mL)**

Modified Dose *(Use Actual Body Weight.* Round dose to nearest 250 mg, not to exceed 2 grams per dose)

Step 1:	Vancomycin _____ mg IV Q_____ hrs, starting on: trough level 30 min prior to _____dose, to be drawn:

Labs:

Step 2:	☐	SCr daily with AM Labs for _____ consecutive days (for pts with unstable renal function or changing volume of distribution as in sepsis or resolving sepsis)
	☐	SCr Q Monday, Wednesday, Saturday with AM Labs (for patients with stable renal function)

Physician Signature _____ ID# _____ Date _____ Time _____

RN Noted _____ Date _____ Time _____

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In Obesity, use Adjusted Body Weight (ABW) for maintenance dosing when Actual Body Weight (Actual BW) > 120% of Ideal Body Weight (IBW).

IBW (male) = 50 kg + 2.3 kg/in for each in > 5ft
IBW (female) = 45 kg + 2.3 kg/in for each in > 5ft
Adjusted BW = IBW + 0.4 (Actual BW – IBW)

How to calculate Creatinine Clearance

$$Cl_{cr} = \frac{(140 - age) * IBW\ weight\ (kg)}{72 * SCr} * (0.85\ if\ female)$$

When to normalize SCr:

- If patient is ≤ 65 yrs and SCr < 0.8 mg/dL, use 0.8 mg/dL to calculate Cl_{cr}.
- If patient is over 65 yrs and SCr < 1 mg/dL, use 1 mg/dL to calculate Cl_{cr}.

Pharmacy Consultation for Subsequent Maintenance Dosing Indicated for the Following:
Most patients will follow the outlined maintenance dosing intervals (step 3). The patients that fall out of this maintenance dosing are the following type of patients:

- Situations with changing volume of distribution: Initial septic shock, resolving septic shock, or diuretic use.
- Situations with abnormal volume of distribution: Pregnancy, morbidly obese, amputee and burn patients.
- Renal failure patient's on hemodialysis or peritoneal dialysis.
- Unstable renal function to include the use of other renally toxic medications such as: Aminoglycosides, NSAIDS, chemotherapy (platinum), amphotericin, diuretics, IV contrast or vasopressors.
- Serum creatinine does not reflect estimated renal function, for example: Anuric patient initially with low creatinine, or patient with high creatinine with improving urine output with hydration.
- Septic Shock and Meningitis, serious conditions requiring rapid achievement of desired trough of 15-20 mcg/mL.
- Patients where creatinine clearance may be overestimated: Amputee, muscle diseases, or morbidly obese where use of adjusted body weight is recommended.

Monitoring of Patients Receiving Vancomycin:

Serum creatinine	• In patients with serious infections or are high risk for the reasons indicated above (i.e. renal failure, obesity, septic shock, etc.), obtain serum creatinine daily • In patients with stable renal function, recommend obtain serum creatinine 2-3 times per week
Vancomycin Levels	• Once therapeutic level is obtained, troughs should be ordered 2-3 times weekly • Pharmacy consult is mandatory for patients with serious infection, changing clinical condition or changing renal function • In patients at goal with stable renal function and stable clinical conditions, recommend repeat trough levels weekly
Serum Albumin	• Serum Albumin weekly Q Monday with AM Labs

Vancomycin Dosage Modification: (Goal trough 15-20 mcg/mL)
All dosage adjustments will be cleared through the pharmacy. A dose modification is needed when patient is not within goal trough range of 15-20 or changes in the patient's clinical status.

Infectious Disease Consultation: Indicated for patients with: endocarditis, meningitis, patients on long term outpatient vancomycin therapy.