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| 3.erwesssAdd dosing interval to time trough was taken**Assessing Drug Levels** **Determining Initial Maintenance Regimen** | **Vancomycin Collaborative Practice (VCP)****Pocket Guide for** **Pharmacists****Please refer to additional files on the health.uconn.edu/pharmacy website for more detailed information and for all necessary forms.****UConn Health Department of Pharmacy & Antimicrobial Stewardship Program** |

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| Vancomycin Loading Dose: All Patients* 25 mg/kg based on total body weight not to exceed 3000 mg

Add dosing interval to trough level was takenScheduling Labs* **Trough**: blood draw should be scheduled 1 hour prior to the start of an infusion of a dose
* **Peak**: blood draw should be scheduled to occur 1-2 hours after the end of the same dose infusion
* **Example**

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|  | Time | Level |
| Trough | 09:30 | 11 |
| Dose: 1000 mg every 12 hours | 10:00 | \_\_ |
| Peak  | 12:00 | 36 |

Clinical Situations that May Require Monitoring PRIOR TO 72 HOURS* **Critically-ill patients (ICU patients)** with or without hemodynamic stability
* Patients with a **BMI > 40**
* Patients with documented **positive blood cultures for gram-positive cocci** and/or patients with suspected pneumonia and a **positive MRSA PCR nasal swab**
* Patients with **substantial acute alterations in renal function**
* Patient on **HD or other continuous renal replacement**
* Patients with **anticipated hospital discharge prior to 72 hours of therapy who need outpatient vancomycin therapy**

Therapeutic Monitoring: * **AUC range of 400-600 mg-h/L** will be used for ALL PATIENTS
* Vancomycin levels may **ONLY be assessed if therapy continues for at least 3 days (72 hours)**

Initial Vancomycin Maintenance Regimen* Dose: 500 mg to 2000 mg
	+ Maximum initial single administered dose of 2000 mg per dose; maximum total daily dose of 4000 mg per day
* Administration Intervals: Every 8, 12, 24, 48, or 72 hours
 |  | MRSA Nasal Swab* RPh may order MRSA nasal swab if a patient has documented/suspected pneumonia may discontinue Vancomycin if negative
* To order, go to Orders tab in the patient’s chart and type “MRSA”
* RPh should contact primary care team to alert of discontinuation

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| **Table #3: Infusion Times for Vancomycin Doses** |
| Doses  | Infuse Over |
| 500-1000 mg | 1 hour |
| 1250-1750 mg | 2 hours |
| Doses ≥ 2000 mg | 2.5 hours |

\*Doses available at UConn Health: 500, 750, 1000, 1250, 1500, 1750, 2000, 2500, and 3000 mg

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| **Table #2: Guidelines for Regimens Adjustments in Hemodialysis Patients** |
| Pre-HD Conc. (mg/L) | Next Vancomycin Dose |
| 5-10 | Increase maintenance dose by ~50% |
| 10-14 | Increase maintenance dose by ~25% |
| 15-20 | No change in maintenance dose |
| 21-25 | Decrease maintenance dose by ~25% |
| 26-30 | Decrease maintenance dose by ~50 |
| >30 | Consider holding next dose or decrease dose by ~75 |

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| **Table #1: Special Dosing Considerations and Suggested Changes to Vancomycin Dosing** |
| Special Dosing Considerations | Effect on Vancomycin | Suggested Changes/Notes |
| Chronic or Acute Hemodialysis (HD) | Increased VdA 3-4h HD session usually eliminate ~30-50% of the serum concentration | -Maintenance dose ~10 mg/kg-First treatment dose should be administered as soon as possible without regard to the patient’s HD schedule-All subsequent doses should be administered on HD days after the patient’s HD session is complete-Once weekly levels are appropriate for patients stable on hemodialysis-Schedule blood draws with AM labs ONLY on HD days-Pre-dialysis serum concentration of 15-20 mg/L will assure an AUC/MIC of 400-600 mg-h/L-Adjust doses based on information in Table #2 |
| Continuous Renal Replacement Therapies (CRRT) | Variable | -Regimens often will be similar to those used in patients with “good” renal function-Maintenance dose 7.5-10 mg/kg q12h-Since patient on CRRT will be critically ill in the ICU, the pharmacist can order a serum peak and trough as early as the first maintenance dose |
| Significant Obesity (BMI >40) | Increased VdIncreased half-life | -Pharmacist should order the initial peak and tough blood draws within the first 24-48 hours of therapy |
| Worsening renal function prior to start of therapy | Increased half-life | -Consider a ~25% dose reduction and/or increase the administration interval-Acceptable for pharmacists to schedule and order serum vancomycin concentrations prior to 72 hours in patients with large alterations in renal function |
| Renal function improving and/or expected to improve during Vancomycin Therapy | Decreased half-life | -Consider a ~25% dose increase and/or decrease the administration interval-Acceptable for pharmacists to schedule and order serum vancomycin concentrations prior to 72 hours in patients with large alterations in renal function |

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