SBUH Vancomycin Dosing Protocol for Adult Patients
Initial Vancomycin Dosing (no prior dosing or measured vancomycin concentrations)

Vancomycin Empiric Dosing for Severe or Deep-Seated Infections (bacteremia/endocarditis, pneumonia, meningitis, osteomyelitis)	
Therapeutic Window: 24h-AUC of 500 – 700 mg*h/L with corresponding trough concentration of 10 -20 mcg/mL	
Rising Serum Creatinine – Give first dose according to total body weight, then obtain a random 24 hours after the first dose; If the 24-h random level is less than 20 mcg/mL, give 1000 mg x1 **[Contact Antimicrobial Stewardship via Spok Web for subsequent monitoring and dosing assistance]**	
Stable Creatinine Clearance calculated by Cockcroft-Gault formula (mL/min) **Use Ideal Body Weight (IBW) for Cockcroft-Gault formula for non-obese patients** **Obese patient is defined as Total Body Weight greater than 1.3 x IBW** **For obese patients, use Adjusted Body Weight = IBW + 0.4 x (Total Body Weight – IBW)** **Cr Cl (mL/min) =[(140 – age in years)* Body Weight]/(72*Cr in mg/dL)** **For female - Multiply above equation by 0.85**	
First dose	
Weight	**Dose**
Less than or equal to 60 Kg	1250 mg
Greater than 60 to 70 Kg	1500 mg
Greater than 70 to 80 Kg	1500 mg
Greater than 80 to 100 Kg	1750 mg
Greater than 100 Kg	2000 mg
Maintenance Dose	
Creatinine Clearance	**Dose**
Greater than 100 mL/min	1000 mg q8h
Greater than 60 to 100 mL/min **[For patient ≥65 y.o., cap estimated Cr Cl to >60 to 100 mL/min]**	1000 mg q12h
Greater than 40 to 60 mL/min	1250 mg q24h
Greater than 30 to 40 mL/min **[Obtain vancomycin trough concentration prior to the 3rd dose; Contact Antimicrobial Stewardship via Spok Web for dosing assistance]**	1000 mg q24h
Greater than 20 to 30 mL/min **[Obtain vancomycin trough concentration prior to the 3rd dose; Contact Antimicrobial Stewardship via Spok Web for dosing assistance]**	500 mg q24h
Less than or equal to 20 ml/min **[Contact Antimicrobial Stewardship via Spok Web for subsequent monitoring and dosing assistance]**	Obtain a random level 24 hours after the first dose; if the 24-h random level is less than 20 mcg/mL, give 1000 mg x1

Editors
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03/2019

SBUH Vancomycin Dosing Protocol for Adult Patients (Continued)
Initial Vancomycin Dosing (no prior dosing or measured vancomycin concentrations)

Vancomycin Empiric Dosing for Skin and Soft Tissue Infections	
Therapeutic Window: Not Defined **Monitoring of trough concentration is not necessary in most cases except in patients who are over- or under- weight or with decreased or changing renal function**	
Rising Serum Creatinine – Give first dose according to total body weight, then obtain a random 24 hours after the first dose; If the 24-h random level is less than 15 mcg/mL, give 1000 mg x1 **[Contact Antimicrobial Stewardship via Spok Web for subsequent monitoring and dosing assistance]**	
Stable Creatinine Clearance calculated by Cockcroft-Gault formula (mL/min) **Use Ideal Body Weight (IBW) for Cockcroft-Gault formula for non-obese patients** **Obese patient is defined as Total Body Weight greater than 1.3 x IBW** **For obese patients, use Adjusted Body Weight = IBW + 0.4 x (Total Body Weight – IBW)** **Cr Cl (mL/min) =[(140 – age in years)* Body Weight]/(72*Cr in mg/dL)** **For female - Multiply above equation by 0.85**	
First dose	
Weight	**Dose**
Less than or equal to 60 Kg	1250 mg
Greater than 60 to 70 Kg	1250 mg
Greater than 70 to 80 Kg	1500 mg
Greater than 80 to 100 Kg	1500 mg
Greater than 100 Kg	2000 mg
Maintenance Dose	
Creatinine Clearance	**Dose**
Greater than 100 mL/min	1250 mg q12h
Greater than 60 to 100 mL/min	1000 mg q12h
Greater than 40 to 60 mL/min	1000 mg q24h
Greater than 30 to 40 mL/min **[Obtain vancomycin trough concentration prior to the 3rd dose; Contact Antimicrobial Stewardship via Spok Web for dosing assistance]**	750 mg q24h
Greater than 20 to 30 mL/min **[Obtain vancomycin trough concentration prior to the 3rd dose; Contact Antimicrobial Stewardship via Spok Web for dosing assistance]**	500 mg q24h
Less than or equal to 20 ml/min **[Contact Antimicrobial Stewardship via Spok Web for subsequent monitoring and dosing assistance]**	500 mg q48h

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SBUH Vancomycin Dosing Protocol for Adult Patients (Continued)
Initial Vancomycin Dosing (no prior dosing or measured vancomycin concentrations)

ADULT Vancomycin Dosing - Continuous Renal Replacement Therapy (CVVHD/F)	
Monitoring: Obtaining vancomycin trough concentration prior to the 3rd dose and contact Antimicrobial Stewardship via Spok Web to provide assistance in dosing.	
First dose	
Weight	**Dose**
Less than or equal to 60 Kg	1250 mg
Greater than 60 to 70 Kg	1500 mg
Greater than 70 to 80 Kg	1500 mg
Greater than 80 to 100 Kg	1750 mg
Greater than 100 Kg	2000 mg
Maintenance Dose (starts 12 hours after the first dose)	
All CVVHD/F Patients	1250 mg q24h

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SBUH Vancomycin Dosing Protocol for Adult Patients (Continued)
Vancomycin Dosing Recommendations for patients receiving intermittent Hemodialysis

ADULT Vancomycin Dosing - ESRD on Intermittent HD Skin and Soft Tissue Infections		
First Dose	**Subsequent Dosing: Give Vancomycin after hemodialysis.**	
15 -20 mg/kg based on **actual body weight for the first dose (Round dose to the nearest 250 mg increment; Max 2g per dose)**	**Less than 70 kg**	500 mg
	Greater than or equal to 70 Kg	750 mg

ADULT Vancomycin Dosing - ESRD on Intermittent HD Severe or Deep-Seated Infections			
First Dose	**Subsequent Dosing: Give Vancomycin after hemodialysis. Monitoring: Obtain Vancomycin level prior to dialysis**		
20 mg/kg based on **actual body weight for the first dose (Round dose to the nearest 250 mg increment; Max 2g per dose)** **First dose can be given before HD.** **If patient receives the first dose of vancomycin before a HD session and the next HD is not due for another 36 to 48 hours, give a supplemental dose of 250 mg after HD**	**Goal is to maintain vancomycin concentration within 20 - 30 mcg/mL in between hemodialysis sessions which approximates a pre-HD level of 20 - 25 mcg/mL.**		
	Pre-dialysis Level (mcg/ml)	**Less than 70 kg**	**Greater than or equal to 70 Kg**
	Less than or equal to 10	1000 mg	1250 mg
	Greater than 10 to 20	750 mg	1000 mg
	Greater than 20 to 25	500 mg	750 mg
	Greater than 25 to 30	250 mg	500 mg
	Greater than or equal to 30	Hold vancomycin	Hold vancomycin

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