

Galway: GAPP - Galway Antimicrobial Prescribing Policy / Guidelines (GAPP): Vancomycin, CefAZOLin, Daptomycin & Gentamicin Dosing in Haemodialysis

Vancomycin, CefAZOLin, Daptomycin & Gentamicin Dosing Guidelines for Patients on Intermittent Haemodialysis

Vancomycin	Weight	Loading dose	Maintenance dose	Administration	Monitoring
<ul style="list-style-type: none">A loading dose is essential to ensure adequate plasma levelsGive 20mg/kg loading dose rounded to nearest 250mg			750mg with each dialysis	For inpatients, administer in haemodialysis unit and record on inpatient drug chart See IV guide for more information on administration	Not usually necessary to hold the dose pending levels unless previous level high or toxicity suspected <ul style="list-style-type: none">Pre-dialysis trough levelCheck first trough level before the second dose, then once weeklyTarget trough 15 to 20mg/lThe goal is to ensure effective plasma levels
	<50kg	750mg	During latter part of dialysis, by infusion		
	50-69kg	1g			
	70-100kg	1.5g			
	>100kg	2g			
CefAZOLin	No loading dose required		Give 2g/2g/3g three times weekly with each dialysis: 2g when next dialysis 2 days later, and 3g when next dialysis 3 days later	Post dialysis	None required
Daptomycin	No loading dose required		Give 6/6/9 mg/kg three times weekly with each dialysis: 6mg/kg when next dialysis 2 days later, and 9mg/kg when next dialysis 3 days later	Post dialysis	None required
Gentamicin	2mg/kg to max 160mg Use ABW, unless ABW >20% above IBW, then use dosing wt = IBW + 0.4 (ABW-IBW)*		1mg/kg with each dialysis (max 80mg) Use ABW unless ABW >20% above IBW, then use dosing wt = IBW + 0.4 (ABW-IBW)*	Post dialysis	<ul style="list-style-type: none">Trough level at end of dialysis but immediately prior to doseTarget trough less than 2mg/lThe goal is to minimise toxicity and to ensure effective plasma levels

*IBW – ideal body weight; ABW – actual body weight. $IBW (kg) = 50 (45.5 \text{ for women}) + (2.3 \times \text{inches over } 5 \text{ feet})$

Further Information: Vancomycin: 80-90% excreted unchanged by the kidneys. Not significantly removed by conventional HD, removal increased by high flux HD. Gentamicin: 100% excreted unchanged by the kidneys. 30% removed during 4 hour HD

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Ref: IDSA Guidelines for the diagnosis and management of intravascular catheter-related infection. [Clin Infect Dis 2009;49:1-45](#)