

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 | | | | | |
|--|--|--------------|--|--|---|
| Antimicrobial | Weight | Loading dose | Maintenance dose | Administration | Monitoring |
| Vancomycin <ul style="list-style-type: none"> A loading dose is essential to ensure adequate plasma levels Give 20mg/kg loading dose rounded to nearest 250mg | <50kg | 750mg | 750mg with each dialysis During latter part of dialysis, by infusion | 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 level Check first trough level before the second dose, then once weekly Target trough 15 to 20mg/l The goal is to ensure effective plasma levels |
| | 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 dose Target trough less than 2mg/l The 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](#)