

Common Oral Antimicrobial Therapy Dosage Adjustments For Renal Function

Medication	> 50mL/min	30-50mL/min	10-30mL/min	< 10 mL/min (non-dialysis)	HD ¹	CAPD ²	Comments
Amoxicillin	250-500mg TID	250-500mg TID	250-500mg BID	250-500mg daily to BID	250-500mg BID ³	250-500mg BID	<ul style="list-style-type: none"> Higher single doses (eg. 2 g po 1 hr prior to dental surgery) are fine for all CKD stages
Amoxicillin/Clavulanate (Clavulin [®])	250-500 mg TID or 875 mg BID	250-500 mg TID or 875 mg BID	250-500 mg BID	250-500mg daily to BID	250-500 mg BID	250-500 mg BID	
Azithromycin	250-500mg daily	No dosage adjustments					
Cefixime	400mg daily	400mg daily	200 mg daily	200 mg daily	200 mg daily	200 mg daily	<ul style="list-style-type: none"> Give post HD on dialysis days
Cefuroxime axetil	250-500mg BID to TID	No dosage adjustments					
Cephalexin	250-500mg QID	250-500mg TID to QID	250-500mg BID to TID	250-500mg daily to BID	250-500mg BID	250-500mg BID	
Ciprofloxacin	250-750mg BID	250-750mg BID	500-750mg daily	250-500mg daily	500-750mg daily	500-750mg daily	<ul style="list-style-type: none"> May prolong QTc Space doses apart from Ca⁺⁺, Iron and Al⁺⁺⁺ by at least 3 hours Give post HD on dialysis days
Clarithromycin/Clarithromycin XL	250-500 mg BID (1g daily XL)	250-500 mg BID (1g daily XL)	500mg daily	250-500mg daily	250-500mg daily	250-500mg daily	<ul style="list-style-type: none"> May prolong QTc Use regular release format with eGFR < 30 mL/min (not XL)
Clindamycin	300 - 600mg TID	No dosage adjustments					
Cloxacillin	500 - 1000mg QID	No dosage adjustments					
Cotrimoxazole (DS ³ = TMP ⁴ 160mg; SS ⁵ = TMP ⁵ 80mg)	DS BID	DS BID	DS daily or SS BID	Avoid - See Comments	DS daily ³ or SS BID ³	SS BID	<ul style="list-style-type: none"> May cause rise in serum potassium and creatinine Risk of crystaluria, esp. with dehydration Review drug interactions interactions - Higher doses may be used for severe systemic infections
Doxycycline	100mg daily to BID	No dosage adjustments					<ul style="list-style-type: none"> Doxycycline is preferred tetracycline in CKD Space doses apart from Ca⁺⁺, Iron and Al⁺⁺⁺ by at least 3 hours

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Erythromycin	250-500mg QID	No dosage adjustments						• May prolong QT
Fluconazole	100-400mg daily	100-400mg daily	100-200mg daily	100-200mg daily	100-200mg daily or 200-400mg post HD on HD days (ie.3x/wk)	100-200mg daily	• May prolong QTc • Give post HD on dialysis days	
Levofloxacin	750mg daily	<u>20-50 mL/min</u> 750mg Q48h	<u>≤ 20 mL/min</u> 750mg, then 500mg Q48H	750mg, then 500mg Q48H	750mg, then 500mg QHD	750mg, then 500mg Q48H	• May prolong QTc • Space doses apart from Ca ⁺⁺ , Iron and Al ⁺⁺⁺ by at least 3 hours	
Linezolid	600mg po BID	No dosage adjustments						• Need special authority for coverage • Expensive
Metronidazole	500mg BID to TID	No dosage adjustments						• Courses longer than 2 weeks in CKD may increase risk peripheral neuropathy
Moxifloxacin	400mg daily	No dosage adjustments						• May prolong QTc • Space doses apart from Ca ⁺⁺ , Iron and Al ⁺⁺⁺ by at least 3 hours
Nitrofurantoin	50-100mg QID (100mg BID Macro-BID [®])	50-100mg QID (100mg BID MacroBID [®])	Avoid					• Metabolites accumulate; increased risk of neurotoxicity • Efficacy reduced with eGFR < 30 mL/min
Penicillin VK	300-600mg BID-QID	No dosage adjustments						
Tetracycline	≥80mL/min: 250-500mg QID; 50-80 mL/min: 250-500mg BID to TID	250-500mg daily to BID	250-500mg daily to BID	Avoid				• Doxycycline is preferred tetracycline in CKD
Valacyclovir	500-1000mg BID to TID	500-1000mg BID to TID	500-1000mg BID	500mg daily	500-1000mg daily	500-1000mg daily	• Give post HD on dialysis days	
Vancomycin	125mg QID	No dosage adjustments						• Oral route used only for treatment of C.difficile • Vancomycin levels NOT needed for oral route • Need special authority

¹HD = hemodialysis; ²CAPD = continuous ambulatory peritoneal dialysis; ³DS = Double Strength; ⁴TMP = trimethoprim; ⁵SS = Single Strength