RENAL DOSE ADJUSTMENT FOR CHRONIC AND ACUTE DRUGS

Grey cells = no information mentioned in reference (UpToDate)

Green font= rounded to smallest dose that can be administered –half tablet/one capsule)

CHRONIC MEDICATION

	CKD 4 (GFR 15-29)	CKD 5 (GFR <15)	Hemodialysis
ANTIPLATELET & ANTICOAGULANT			
Aspirin		Use if benefits outweigh risk	Dose as per CKD 4-5; Administer post-dialysis
Clopidogrel	✓ No adjustment needed		
Dipyridamole			
Ticlopidine			
Rivaroxaban	× Not recommended; warfarin remains as anti-coagulant of choice For CKD4, 15mg OD may be used with caution in patients with AF		
GASTROPROTECTANT			
Omeprazole	✓ No adjustment needed		
Famotidine	10-20mg OD - BD		
Ranitidine	150mg OD; increase with caution		Dose as per CKD 4-5; Administer post-dialysis
ACE INHIBITOR			
Captopril	Up to 37.5mg BD	Up to 25mg OD	Dose as per CKD 5; Administer post-dialysis
Enalapril	2.5 - 20mg OD - BD	2.5 - 5mg OD - BD	Initiate at 2.5mg OD & adjust according to response; post-dialysis
Lisinopril	2.5 - 30mg OD	2.5 - 20mg OD	
Perindopril	× Not recommended		2mg on dialysis days; post-dialysis
ARB			
Candesartan	✓ No adjustment needed		
Irbesartan			Dose as per CKD 4-5
Losartan			
Telmisartan			
Valsartan			
ALPHA BLOCKER			
Prazosin			
Terazosin	✓ No adjustment needed		
BETA BLOCKER			
Atenolol	25 - 50mg OD	25mg OD	25-50mg OD; admin post-dialysis
Bisoprolol	Initiate at 2.5mg OD, max 10mg/day		Dose as per CKD 4-5
Carvedilol	✓ No adjustment needed		
Metoprolol			
Propranolol			Dose as per CKD 4-5
CALCIUM CHANNEL BLOCKER			
Amlodipine	✓ No adjustment needed		Dose as per CKD 4-5
Nifedipine			
Diltiazem			
Verapamil			
DIURETIC			
Frusemide			Dose as per CKD 4-5
HCTZ	× Not recommended		
Indapamide	1.25 - 2.5mg OD (limited data)		Dose as per CKD 4-5
Spironolactone	× Not recommended		

	CKD 4 (GFR 15-29)	CKD 5 (GFR <15)	Hemodialysis
Other ANTI-HYPERTENSIVE			
Methyldopa	Reduce frequency to BD - TDS	Reduce frequency to OD - BD	Dose as per CKD 5 Administer post-dialysis
Hydralazine	25 - 50mg TDS	25 -50mg BD - TDS	
Other CARDIAC MEDICATION			
Amiodarone	✓ No adjustment needed		
Digoxin	0.0625mg every 24 to 36 hours	0.0625 mg EOD	Dose as per CKD 5
ISMN	✓ No adjustment needed		Dose as per CKD 4-5; Administer post-dialysis
ISDN			Dose as per CKD 4-5
Sotalol	× Not recommended due to multiple cases of torsades de pointes		
Trimetazidine	× Not recommended		
DIABETES			
Metformin	× Not recommended		
Acarbose			
Dapagliflozin			× Not recommended
Linagliptin	✓ No adjustment needed		
Sitagliptin	25mg OD		
Glipizide	Initiate at 2.5mg OD		
Gliclazide	× Not recommended		
Glibenclamide			× Not recommended
Tolbutamide	Dose conservatively		Dose as per CKD 4-5
STATIN			
Atorvastatin	✓ No adjustment needed		
Lovastatin	Use with caution		
Pravastatin	Initiate at 10mg ON		
Rosuvastatin	Initiate at 5mg OD, max 10mg/day		
Simvastatin	Initiate at 5mg ON		
Other CHOLESTEROL MEDICATION			
Fenofibrate	× Not recommended		
Gemfibrozil	300mg BD		Dose as per CKD 4-5
Cholestyramine	✓ No adjustment needed. Use cholestyramine with caution		
Ezetimibe			
GOUT PROPHYLAXIS			
Allopurinol	Up to 100mg OD	Up to 100mg EOD	Initiate 100mg EOD; post-dialysis
Probenecid	× Not recommended		
Colchicine			
THYROID			
Carbimazole	No dose adjustment necessary		Dose as per CKD 4-5
Propylthiouracil			
OSTEOPOROSIS			
Alendronate	× Not recommended		
Risedronate			

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ACUTE MEDICATION

	CKD 4 (GFR 15-29)	CKD 5 (GFR <15)	Hemodialysis
ANTIBIOTIC			
Amoxicilllin	250 – 500mg BD	250 – 500mg OD	250 – 500mg OD; Administer post-dialysis
Azithromycin	✓ No adjustment needed		
Cephalexin	250mg BD - TDS	250mg OD	250–500mg OD - BD; Administer post-dialysis
Ciprofloxacin	250mg BD or 500mg OD		250 –500mg OD; Administer post-dialysis
Clarithromycin	250mg BD		
Clavulanic acid, Amoxicillin	625mg BD	625mg OD	625mg OD; Administer post-dialysis
Co-trimoxazole	480mg BD	× Not recommended; if necessary, load 960mg , followed by 480mg OD. Admin post-dialysis	
Clindamycin	✓ No adjustment needed		Dose as per CKD 4-5
Doxycycline			
Erythromycin			
Metronidazole			400mg BD – TDS; Administer post-dialysis
Nitrofurantoin	× Not recommended		
Penicillin V	Use with caution; prolonged excretion		
Tetracycline	250 – 500mg OD - BD	250 – 500mg OD	× Not recommended. If necessary, dose as per CKD 5
ANTI-FUNGAL and other ANTI-INFECTIVE			
Ketoconazole	No adjustment needed		
Acyclovir	Simplex: 200mg TDS Zoster: 800mg TDS	Simplex: 200mg BD Zoster: 800mg BD	Dose as per CKD 5; Administer after dialysis
Albendazole			
Mefloquine	✓ No adjustment needed		
PAIN			
Paracetamol	Increase interval to 6-hourly	Increase interval to 8-hourly	
Paracetamol, Orphenadrine			
NSAIDs & Cox-2 Inhibitors	× Not recommended		
Codeine	15 - 45mg QDS	15 - 30mg QDS	
Tramadol	Reduce frequency to BD. Max 200mg/day		
ACUTE GOUT			
Colchicine	0.5mg 2-3 times in 2 weeks (NHGP Gout CPG)		0.5mg as a single dose in 2 weeks
GIDDINESS			
Betahistine	Use with caution		
Prochlorperazine			

	CKD 4 (GFR 15-29)	CKD 5 (GFR <15)	Hemodialysis
COUGH, COLD & ALLERGY			
ANTI-HISTAMINE			
Cetirizine	5mg OD		
Chlorpheniramine			
Hydroxyzine	12.5 - 25mg QDS	12.5 - 25mg QDS	
Loratadine	Dose OD - EOD	Dose EOD	
Loratadine, Pseudoephedrine	Suggest reduce dosing frequency as per loratadine and GFR		
Promethazine			
Cinnarizine	✓ No adjustment needed		
COUGH			
Dextromethorphan			
Diphenhydramine			
Guaifenesin			
Pholcodine			
MUCOLYTIC			
Acetylcysteine			
Bromhexine			
OTHERS			
Benzydamine	Use with caution; excreted by kidneys		
Serratiopeptidase			
GASTRO-INTESTINAL MEDICATION			
Chlordiazepoxide/Clidinium	Use with caution		
Hyoscine			
Magnesium Carbonate/ Magnesium Trisillicate	Use with caution; antacids containing magnesium or aluminum may accumulate in renal impairment, leading to toxicity		
Metoclopramide	10mg TDS	10mg BD (max 20mg/day)	
ANTI-DIARRHEAL			
Diphenoxylate/Atropine	Use with caution in patients with hepatorenal disease		
Loperamide	✓ No adjustment needed		
LAXATIVE			
Bisacodyl			
Lactulose			
Sennosides			
Sod. phosphate enema	Use with caution; ionized inorganic phosphate excreted by kidneys		
OTHERS			
Diosmin/ Hesperidin			
Domperidone	Reduce frequency to OD - BD		

Main reference: Lexicomp Drug Information, via UpToDate
Additional references: Micromedex, UK Renal Drug Handbook 4th Edition
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