Table 4 Common High-risk Medications That Should Be Avoided or Have Their Dosage Reduced based on CrCI in Older Adults[36]

Medication Class/Medications	CrCI at which action required	Risk	Recommendation
CNS/Analgesics			
• Baclofen	• eGFR <60	• Increased risk of encephalopathy requiring hospitalization in older adults	• Avoid (if unavoidable, use the lowest effective dose)
• Gabapentin	• <60	• CNS adverse effects	• Reduce dose
• Pregabalin	• <60	• CNS adverse effects	• Reduce dose
• Tramadol	• <30	• CNS adverse effects	• Reduce dose
• Levetiracetam	• ≤80	• CNS adverse effects	• Reduce dose
• Duloxetine	• <30	• Increased GI adverse effects	• Avoid
Anticoagulants*			
• Enoxaparin	• <30	• Increased risk of bleeding	• Reduce dose
• Fondaparinux	• <30	• Increased risk of bleeding/Avoid	• Avoid
• Dabigatran	• <30	• Lack of evidence for efficacy & safety	• Avoid
• Rivaroxaban	• <50	• Lack of evidence for efficacy & safety	• Avoid if CrCI <15, reduce dose for CrCI 15-50
Diuretics			
• Amiloride	• <30	• Hyperkalemia and hyponatremia	• Avoid
• Spironolactone	• <30	• Hyperkalemia	• Avoid
• Triamterene	• <30	• Hyperkalemia and hyponatremia	• Avoid
Antibiotics			
• Ciprofloxacin	• <30	• Increased risk of CNS effects (seizures, confusion) and tendon rupture/	• Reduce Dose
Nitrofurantoin	• <30	• Potential for pulmonary toxicity, hepatotoxicity, and peripheral neuropathy	• Avoid
• Trimethoprim-sulfamethoxazole	• <30	• Increased risk of worsening renal function and hyperkalemia/	• Reduce dose if CrCI 15-29, Avoid if <15
H2-Receptor Blockers			
• Cimetidine	• <50	• Mental status changes	• Reduce dose
• Famotidine	• <50	• Mental status changes	• Reduce dose
• Nizatidine	• <50	• Mental status changes	• Reduce dose
Hyperuricemic Agents			
• Colchicine	• <30	• GI, neuromuscular, and bone marrow toxicity	• Reduce dose
• Probenecid	• <30	• Loss of effectiveness	• Avoid

CrCI: Creatinine clearance index; GI: Gastrointestinal tract; CNS: Central nervous system

*Apixaban was removed in the most recent BEERS Criteria, as there is emerging evidence that it is safe to use in patients with end stage renal disease.