

Key Features and Challenges of Chronic Kidney Disease in Elderly Patients

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Chronic kidney disease (CKD) is common among older adults and linked with high mortality, cardiovascular complications, and increased healthcare use. Elderly patients with CKD frequently have multiple chronic conditions, which increases their risk for functional decline, cognitive impairment, and frailty. CKD is defined by kidney damage or an estimated glomerular filtration rate (eGFR) below 60 mL/min/1.73 m², lasting three months or more. Diagnosing CKD in older adults may be more accurate when assessing renal function trends over time (e.g., stable vs. declining), albuminuria presence, and contributing conditions such as hypertension and diabetes, rather than relying on a single eGFR reading.

CKD may result from issues in three categories: prerenal (low renal perfusion pressure), intrinsic renal (damage to kidney vessels, glomeruli, or tubules), or postrenal (obstructive causes). Factors accelerating CKD progression include systemic and intraglomerular hypertension, glomerular hypertrophy, calcium phosphate deposition, and altered prostanoid metabolism.

Symptoms vary with the degree of uremia and underlying conditions. Patients in stages 1–3 are often asymptomatic. Uremic symptoms can include anorexia, nausea, fluid overload, peripheral neuropathy, cognitive changes, hyperkalemia, acidosis, hypertension, anemia, and musculoskeletal pain. Care focuses on identifying symptoms and addressing the unique needs of older adults, from early CKD stages to kidney failure and end-of-life management.

Keywords: elderly kidney disease, functional decline, cardiovascular risks, renal function trends, disease progression factors, uremic symptoms, geriatric kidney care