

HALT-CKD

Eligibility	All patients with CKD G1–G3A <80 years old - CKD G1 & G2: Requires 2 abnormal UACR/UPCR ≥12 weeks apart - Add “chronic renal failure” as visit diagnosis and problem list
Lifestyle modification	- Refer all patients aged <80 years for HALT-CKD counselling - Stop smoking, refer smoking cessation clinic by pharmacist - Encourage weight loss, consider dietitian review if BMI >23 kg/m², weight management clinic if BMI >27.5 kg/m² - Counsel on low salt (<2 g/day) diet - Counsel on low protein diet (<0.8 g/kg/day) and refer dietitian for CKD G3B patients - Advice on 150 mins/week of moderate intensity exercise
Maximise ACEi/ARB	Optimise dosages until one of these endpoints below: - Maximal recommended or tolerated dose - Normoalbuminuria + achieve BP target - When starting or increasing ACEi/ARB, order ACEi/ARB panel in 2–4 weeks with CM review
Optimise BP	<130/80 mmHg for ALL patients <140/90 mmHg for older patients, high fall risk, multiple comorbidities
Optimise HbA1c	≤7%: Age ≤75 years ≤8%: Age 76–80 years
Optimise LDL-C	<1.8 mmol/L for DM patients <2.6 mmol/L for non-DM patients - More stringent targets for patients with ASCVD or additional risk factors
Start SGLT2 inhibitor	- Can be started if patient is on ACE-I/ARB; check renal panel in the elderly, advanced CKD or on diuretic - Multiple benefits such as weight loss, BP and DM control, reducing albuminuria, retarding progression, reducing mortality
Shared care with renal	Refer CKD G3B, G4 and G5 or persistent significant albuminuria to nephrology

CKD stage	eGFR (ml/min/1.73 m ²)		
G1	≥90		
G2	60–89		
G3A	45–59		
G3B	30–44		
G4	15–29		
G5	<15		

ACEi/ARB	Initial dose	Max daily dose (mg/day)	Renal dose (mg/day)
Lisinopril	5 mg OM Elderly: 2.5 mg	40 OD	CrCl <30 Initial 2.5–5 OD
Enalapril	5 mg OM Elderly: 2.5 mg OM	20 BD	CrCl <30 max 20/day
Captopril	25 mg BD/TDS	50 TDS	CrCl <50 75% dose BD
Perindopril	4 mg OM Elderly: 2 mg OM	8 OD	CrCl <30 Do not use
Losartan*	50 mg OM	100 OD	No change
Valsartan	80 mg OM	320 OD	No change
Irbesartan	150 mg OM Elderly: 75 mg OM	300 OD	No change
Candesartan	8 mg OM	32 OD	Initial 4 OD
Telmisartan*	40 mg OM	80 OD	No change

*Recommended option

Updated October 2024

ASCVD: atherosclerotic cardiovascular disease; ACEi: angiotensin-converting enzyme inhibitor; ARB: angiotensin receptor blocker; BMI: body mass index; BP: blood pressure; CKD: chronic kidney disease; CM: care manager; DM: diabetes mellitus; eGFR: estimated glomerular filtration rate; HALT-CKD: Holistic Approach to Lowering and Tracking Chronic Kidney Disease; Hb1Ac: haemoglobin 1Ac; LDL-C: low-density lipoprotein cholesterol; SGLT2i: sodium-glucose cotransporter-2 inhibitor; UACR: urine albumin-creatinine ratio; UPCR: urine protein-creatinine ratio