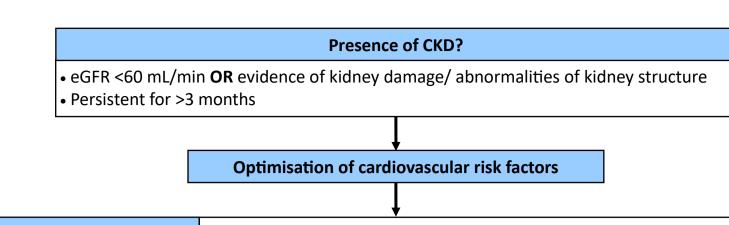
CKD Management Outline





Lifestyle advice Smoking cessation, encourage physical activity, low salt, heart-healthy diet **Optimise BP** ACEi/ ARB titrated to maximally tolerated dose (unless contraindicated) Offer atorvastatin 20mg OD to all people with CKD, follow Lipid Management guidance **Prescribe statins Optimise diabetes** Aiming for HbA1c targets as per NICE guidance

Add ACEi/ ARB

If not already prescribed, start an ACEi or ARB and titrate to the maximally tolerated licensed dose aiming for target BP of <130/80.

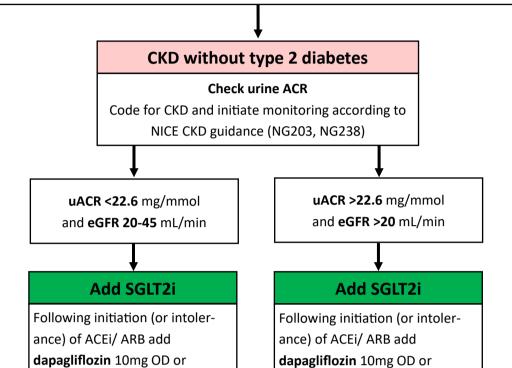
Check creatinine and U&Es 2 to 3 weeks after starting and accept a <25% reduction in eGFR, and potassium <6.0 mmol/L. Reduce, or stop, other antihypertensives to allow up titration of ACEi or ARB. Consider the use of a potassium binder (Specialist initiated e.g. by Advice & Guidance Referral) to allow optimisation if potassium ≥ 6.0 mmol/L (see below).

empagliflozin 10mg OD.

CKD with type 1 diabetes

Check urine ACR

Code for CKD and initiate monitoring according to NICE CKD guidance (NG203, NG238, NG17). Optimise cardiovascular risk factors as above. Titrate ACEi/ ARB to maximally tolerated licensed dose to achieve: uACR <3 mg/mmol AND aiming for target BP of <130/80.



CKD with type 2 diabetes Check urine ACR Code for CKD and initiate monitoring according to NICE CKD guidance (NG203, NG28, NG238) eGFR >20 mL/min

Add SGLT2i

Following initiation (or intolerance) of ACEi/ ARB add

dapagliflozin 10mg OD or

empagliflozin 10mg OD.

If already taking any SGLT2i as part of diabetes management then continue current SGLT2i.

> uACR >3.0 mg/mmol and eGFR 25-59 mL/min

Offer finerenone

Specialist recommended (e.g. by Advice and Guidance Referral). Start finerenone at 10mg OD. Do not start if serum potassium >5 mmol/L. Recheck potassium 4 weeks after starting and after any dose change. Dose adjustments to be guided by Table 1. Thereafter monitor 3-4 monthly.

Serum potassium (mmol/L)	Current finerenone dose	
	10 mg OD	20mg OD
<4.8	Increase to 20mg OD	Maintain 20mg OD
4.8 - 5.5	Maintain 10 mg OD	Maintain 20mg OD
>5.5	Withhold finerenone. Consider restarting when serum potassium < 5 mmol/L. Consider use of a potassium binder.	Withhold finerenone. Consider restarting when serum potassium < 5 mmol/L. Consider use of a potassium binder.

Table 1: Continuation of finerenone and dose adjustment

Potassium binders

Sodium zirconium cyclosilicate or patiromer are recommended by NICE for optimisation, or to allow initiation of, a renin-angiotensin-aldosterone system (RAAS) inhibitor e.g. ACEi/ ARB/ spironolactone/ finerenone for CKD or heart failure.

For people who have had a confirmed serum potassium of at least 6.0 mmol/L. Potassium target range 3.5 - 5.3 mmol/L.

empagliflozin 10mg OD.

Starting doses: sodium zirconium cyclosilicate 5 g OD; patiromer 8.4 g OD.

Repeat Creatinine, Urea and Electrolytes, two weeks after dose adjustment of RAAS inhibitor or potassium binder dose.

Further information/ useful links:

Information on Renal Advice and Guidance, and referral criteria Renal (Kidney) - For Clinicians | North Bristol NHS Trust

UK CKD Guide, UKKA

Chronic kidney disease: assessment and management NICE guideline, NG203. Please note although current NICE CKD guidelines recommend aiming for a higher target BP for people without diabetes and a uACR < 70 mg/mmol, local kidney specialists recommend aiming for a target BP of < 130/80.

Cardiovascular disease: risk assessment and reduction, including lipid modification, NG238

Lipid Management, Summary of National Guidance for Primary and Secondary Prevention of CVD, NHS England/ Accelerated Access Collaborative

Type 2 diabetes in adults: management in CKD, NICE NG28

UK Kidney Association Clinical Practice Guideline: SGLT2 Inhibition in Adults with Kidney Disease, UKKA

People with Type 1 diabetes, polycystic kidney disease, or kidney transplant were excluded from the definitive trials of SGLT2i.

Dapagliflozin for treating chronic kidney disease, NICE TA1075

Empagliflozin for treating chronic kidney disease, NICE TA942

Potassium binders: Sodium zirconium cyclosilicate for treating hyperkalaemia, NICE TA599; Patiromer for treating hyperkalaemia, NICE TA623

Finerenone for treating chronic kidney disease in type 2 diabetes, <u>BSW Finerenone guidance</u>, NICE <u>TA877</u>

Key to BSW Formulary traffic light status:

GREEN

ACEi/ ARB, SGLT2i

AMBER RED

Finerenone: Specialist initiated Sodium zirconium cyclosilicate/ patiromer: Specialist only