CKD in Primary Care: new approaches to reduce inequalities and save lives

LKN CKD Early Identification and Optimisation Pathways (3 in 3)

Contents of this information pack:

London Kidney Network, June 2024, Final v2.2

Optimising Identification & Management of Chronic Kidney Disease: A Rationale

What is Chronic Kidney Disease?

- CKD is “a reduction in kidney function or damage to structure over a period of 3 months with associated health implications."
- **Albuminuria** based on a uACR result is the most common first marker of kidney damage.

Kidney disease: A UK public health emergency

- More than 1 in 10 of the UK population live with CKD.
- CKD is a high-risk condition for cardiovascular disease.
- The total annual economic burden of kidney disease in the UK is £7.0 billion, with £6.4 billion being direct costs to the NHS– about 3.2% of NHS budgets.
- Failure to identify and treat CKD doubles mortality, meaning it is important to ensure people are on optimal therapies as soon as possible.

What does the evidence tell us?

- Diagnosing and coding CKD **early** enables people to access interventions such as lifestyle advice and pharmacotherapy to reduce the risk of CKD progressing and of significant cardiovascular complications.
- **Albuminuria** is an independent risk factor for progression to end stage kidney disease and cardiovascular mortality, at any eGFR.
- uACR is therefore **essential** in combination with eGFR to diagnose CKD in high-risk patients.

The challenge for London

- High levels of social deprivation
- Ethnically diverse populations
- Poor outcomes due to high rates of undiagnosed and uncoded CKD
- Unwarranted variation in clinical practice

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The LKN’s vision is to support primary care to identify CKD **early**, reduce unwarranted variation in detection and management, and optimise interventions such as RAS/RAAS blockade and SGLT-2 inhibitors to **save lives**

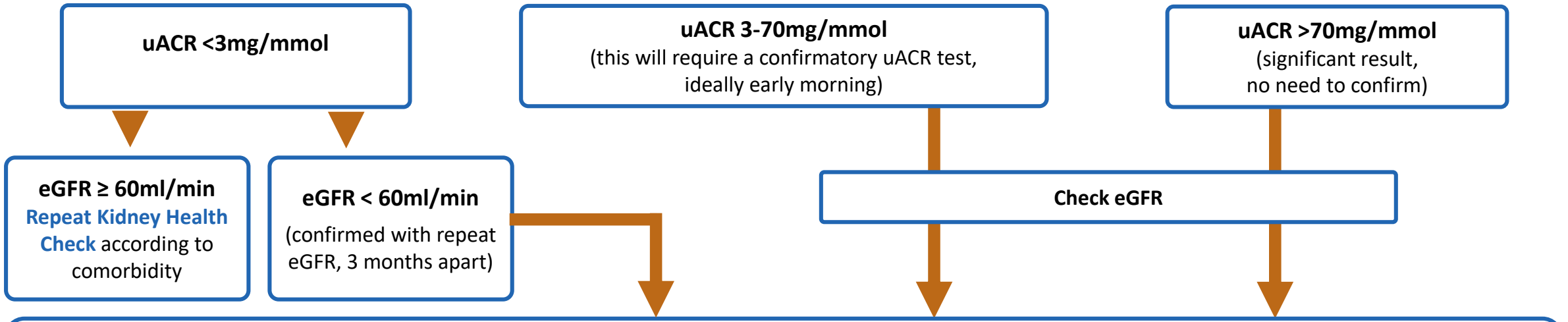
The Kidney Health Check for Adults Living with Diabetes or Hypertension: How to identify Chronic Kidney Disease early

LKN CKD Early Identification Pathway

What is a Kidney Health Check? It is the combination of both an **eGFR** *and* a **uACR** test

Who should have a Kidney Health Check?

1. People living with **diabetes** should have a yearly kidney health check
2. People living with **hypertension** should have a kidney health check every 1-5 years (annually for poorly controlled hypertension)
3. See NICE CKD Assessment and Management for uACR testing in other health conditions



1. INFORM the patient that they have Chronic Kidney Disease (CKD)
2. If eGFR is < 60ml/min, consider discussing Kidney Failure Risk equation see link: KFRE
3. Add coding for CKD (including CKD G1 and G2) and albuminuria category, into the patient record
4. Discuss with the person their uACR number, eGFR number, BP and HbA1c if living with diabetes
5. Explain what each term means *and* the factors that can cause CKD or diabetic kidney disease: raised BP, raised HbA1c, obesity
6. Give lifestyle advice and connect them with support services where suitable: weight management enhanced services, exercise, and smoking cessation (see online guidance). Offer advice on avoiding NSAIDS/sick day rules.
7. Implement the **LKN CKD Optimisation Pathways** for CKD with or without diabetes

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3 key actions within 3 months to save lives (3 in 3)

LKN CKD Optimisation Pathway

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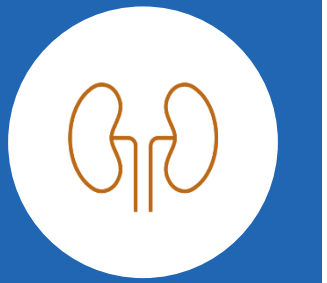
In adults with Type 2 diabetes and CKD

(eGFR 20–90ml/min/1.73m^2)



ACTION 1 (Month 1)
Maximum intensity RAS / RAAS blockade

Start ACE-inhibitor or ARB and titrate to maximum tolerated licensed dose *(NICE, NG203)* within one month
Ensure the patient is on a high intensity statin, unless contraindicated.

ACTION 2 (Month 2)
Initiate SGLT-2 inhibitor according to NICE guidance (see next page)

Consider/ counsel on risks of diabetic ketoacidosis (which may be euglycaemic), sick day rules, risk of UTI/fungal infections. Consider adjusting sulfonylureas/insulin where eGFR >45ml/min and HbA1c < 58mmol/mol to mitigate risk of hypoglycaemia.

ACTION 3 (Month 3)
Initiate further blood pressure agent to target <140/90mmHg unless uACR >70mg/mmol (then 120-129/80mmHg)

If BP remains above target initiate 2nd line BP agents as per NICE guidance (*NG203/ NG136)*
Consider Finerenone as an add on therapy in patients with eGFR 25-60ml/min, uACR>3mg/mmol and potassium<5mmol/l

3 key actions within 3 months to save lives (3 in 3)

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LKN CKD Optimisation pathway for adults with Type 2 Diabetes and CKD (eGFR 20–90ml/min/1.73m²)

(excluding people with polycystic kidney disease or on immunological therapy for renal disease, and renal transplant patients)

1

Month 1, Visit 1: RAS/ RAAS blockade

- ✓ Initiate Atorvastatin 20mg OD unless contra-indicated
  or
  Increase dose up to 80mg OD (40mg OD in GFR<30ml/min) to achieve target cholesterol level (target: 40% reduction in non-HD cholesterol)
- ✓ Initiate treatment with ACEi (Ramipril 5mg once daily) or ARB (Irbesartan 150mg once daily).
  Increase to maximum licenced dose tolerated to achieve BP <140/90mmHg. If uACR is >70mg/mmol, target 120-129/80mmHg. Other BP agents may need to be reduced to optimise ACEi/ARB dosing.
- ✓ In people with significant frailty, consider individualised BP targets as appropriate.
- ✓ Recheck creatinine and potassium within 2 weeks; accept 30% increase in creatinine or 25% decrease in eGFR with initiation/dose change in ACEi/ARB. If over 25% change in eGFR or K ≥6mmol/l, consult local renal team.
- ⚠ Stop nephrotoxic medications : Advise against use of NSAID's and discuss alternatives

Refer or re-refer to local specialist services at any stage if required

2

Month 2, Visit 2: SGLT2 inhibitor treatment

- ✓ Initiate treatment with SGLT2 inhibitor (as per NICE)
  - Empagliflozin GFR 20-90ml/min
  - Dapagliflozin GFR 25-75ml/min
  - Canagliflozin GFR >30ml/min and uACR>30mmol/l
- ⚠ Counsel patient on sick day rules, the risk of UTI/fungal infections. Suspend SGLT-2i if vomiting, in severe sepsis and peri-operatively.
- ⚠ Counsel on signs and symptoms of diabetic ketoacidosis (DKA). Advise that DKA may be in the context of euglycaemia. Consider adjusting sulfonylureas/insulin in those with eGFR <45ml/min and glycated Hb < 58mmol/mol to mitigate the complication of hypoglycaemia.
  Counsel patient regarding avoidance of foot complications (suspend SGLT-2i if acute foot ulceration/ischaemia develops).

3

Month 3, Visit 3: Continue RAS/RAAS blockade, and optimise blood pressure

- ✓ Initiate further blood pressure agent to target to <140/90mmHg, or 120-129/80mmHg if uACR >70mg/mmol.

Consider Finerenone as add on therapy in those on maximal tolerated/indicated dose of ACE/ARB and SGLT2i in patients with GFR25-60ml/min, residual albuminuria and potassium <5mmol/l.

For more information:

NICE NG203 Chronic Kidney Disease: Assessment and Management

Hypertension in Adults: Diagnosis and Management (NG136)

UK Kidney Association Clinical Practice Guideline: SGLT-2 Inhibition in adults with kidney disease (October 2021)

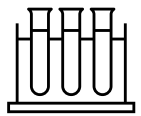
NICE TA877 Finerenone for treating chronic kidney disease in type 2 diabetes

At each review:

Inform your patient of their eGFR, uACR, BP

Assess adherence with medications and discuss any reasons for non-adherence

Reiterate the meaning of each marker



Give detailed no added salt diet advice and/or refer to local specialist services

Discuss progress with each target

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3 key actions within 3 months to save lives (3 in 3)

LKN CKD Optimisation Pathway

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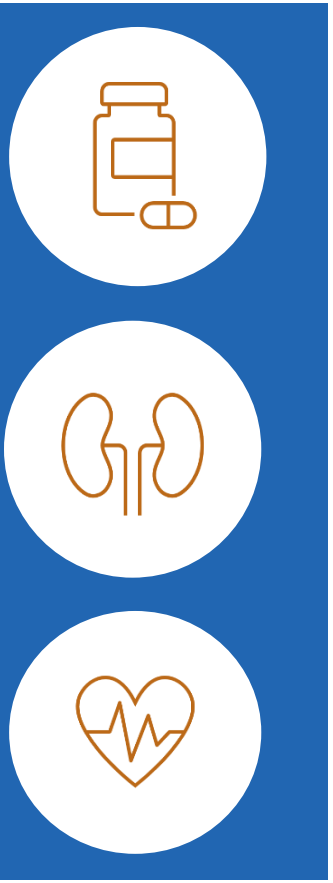
In adults without Type 2 diabetes, with CKD

(eGFR 20–45ml/min/1.73m^2 irrespective of the presence of albuminuria or eGFR 45–90ml/min/1.73m^2 *and* uACR>22.6mg/mmol)



ACTION 1 (Month 1)
Maximum intensity RAS / RAAS blockade

First, ensure the patient is on a statin, unless contraindicated.
Start ACE-inhibitor or ARB if indicated, and titrate to maximum tolerated licensed dose (*NICE, NG203*) within one month

ACTION 2 (Month 2)
Initiate SGLT-2 inhibitor according to NICE guidance (see next page)

Counsel patient on sick day rules, and the risk of UTI/fungal infection

ACTION 3 (Month 3)
Initiate further blood pressure agent to target <140/90mmHg unless uACR >70mg/mmol (then <130/80mmHg)

If BP remains above target initiate 2nd line BP agents as per NICE guidance (*NG203/ NG136)*

3 key actions within 3 months to save lives (3 in 3)

LKN CKD Optimisation pathway for adults without Type 2 Diabetes, with CKD

(excluding people with polycystic kidney disease or on immunological therapy for renal disease, and renal transplant patients)

Month 1, Visit 1: RAS/ RAAS blockade

- ✓ Initiate Atorvastatin 20mg OD unless contra-indicated
  or
  Increase dose up to 80mg OD (40mg OD in GFR<30ml/min) to achieve target cholesterol level (target: 40% reduction in non-HD cholesterol)

  Indications for ACEi or ARB therapy:
  uACR>70mg/mmol or >30mg/mmol if hypertensive

- ✓ Initiate treatment ACEi (Ramipril 5mg once daily) or
  ARB (Irbesartan 150mg once daily) unless contraindicated.
  Increase to maximum licenced dose tolerated to achieve BP <140/90mmHg. If uACR is >70mg/mmol, target 120-129/80mmHg. Other BP agents may need to be reduced to optimise ACEi/ARB dosing.

- ✓ In people with significant frailty, consider individualised BP targets as appropriate.

- ✓ Recheck creatinine and potassium within 2 weeks; accept 30% increase in creatinine or 25% decrease in eGFR with initiation/dose change in ACEi/ARB. If over 25% change in eGFR or K ≥6mmol/l, consult local renal team.

- ⚠ Stop nephrotoxic medications : Advise against use of NSAID's and discuss alternatives

Refer or re-refer to local specialist services at any stage if required

Month 2, Visit 2: SGLT2 inhibitor treatment

- ✓ Initiate treatment with SGLT2 inhibitor (as per NICE)
  - Empagliflozin: GFR 20-45ml/min, irrespective of proteinuria or GFR 45-90ml/min AND uACR>22.6mmol/l
  - Dapagliflozin: GFR 25-75ml/min and uACR>22.6mmol/l

- ⚠ Counsel patient on sick day rules, the risk of UTI/fungal infections. Suspend SGLT-2i if vomiting, in severe sepsis and peri-operatively.

Month 3, Visit 3: Continue RAS/RAAS blockade, and optimise blood pressure

- ✓ Initiate further blood pressure agent to target to <140/90mmHg, or 120-129/80mmHg if uACR >70mg/mmol.

For more information:

NICE NG203 Chronic Kidney Disease: Assessment and Management

Hypertension in Adults: Diagnosis and Management (NG136)

Dapagliflozin for treating CKD NICE TA775

UK Kidney Association Clinical Practice Guideline: SGLT-2 Inhibition in adults with kidney disease (October 2021)

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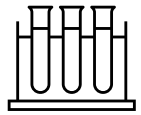
Reiterate the meaning of each marker



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3 key actions within 3 months to save lives (3 in 3)
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References & Acknowledgements

The London Kidney Network reviewed the following guidelines in producing these pathways:

1. Dapagliflozin for treating chronic kidney disease (NICE TA775, published March 2022)
2. Empagliflozin for treating chronic kidney disease (TA942 Published: 20 December 2023)
3. Chronic Kidney Disease: Assessment and Management (NICE guideline NG203, updated November 2021)
4. UK Kidney Association Clinical Practice Guideline: Sodium-Glucose Co-Transporter-2 (SGLT-2) Inhibition in Adults with Kidney Disease (published October 2021)
5. Clinical Practice Guidelines for management of hypertension and renin-angiotensin-aldosterone system blockade in adults with diabetic kidney disease: 2021 update (UK Kidney Association and Association of British Clinical Diabetologists)
6. Hypertension in adults: diagnosis and management (NICE guideline NG136, updated March 2022)
7. Kidney disease a UK public health emergency (UKKA)

Acknowledgments

The London Kidney Network gratefully acknowledges the stakeholder feedback during the development of these pathways, including feedback from CKD nurses, GP's, nephrologists, pharmacists, and diabetologists.

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