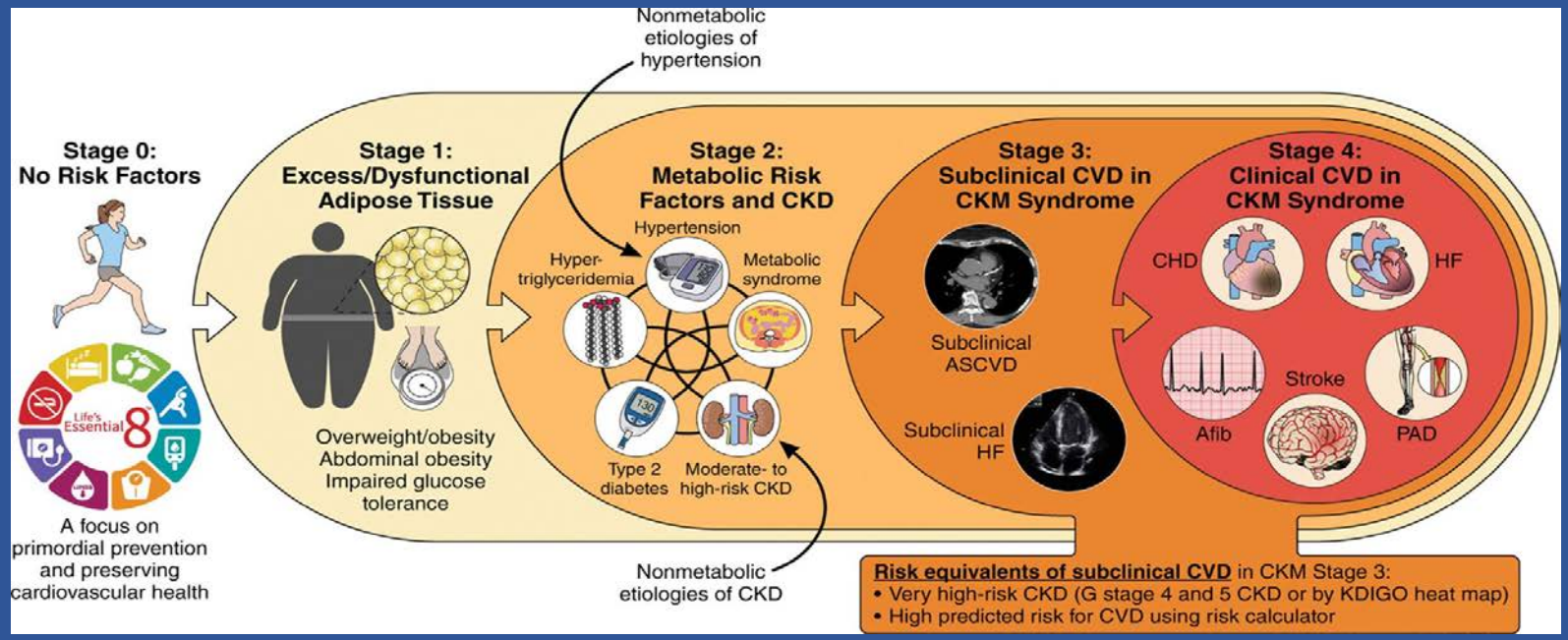
HNP HARROW NETWORK PARTNERS

Harrow
Primary Care Networks
West & North London ICB CRM Training Session 2

Cardio-Renal-Metabolic (CRM)

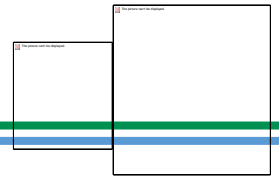


Harrow Network Partners (HNP) Ltd

Dr Kuldhir Johal, Dr Madhvi Joshi & Rashida Rahman

Agenda

- 13:00 Welcome and Introductions — Dr Kuldhir Johal
  - You said – we did
- 13:05 WNL ICB update — Dr Haidar Mohammad
- 13:10 CRM – Cardiology — Dr Ameet Bakhai
- 13:30 CRM – Nephrology — Dr Andrew Frankel
- 13:50 Questions and Answers — All



You said – we did…

- Clinical templates updated to version 16 – please refresh them

➢ **SystmOne**

- Auto-consultation> 21. NWL Enhanced Services → Custom → Cardiorenal Metabolic CRM

➢ **EMIS**

- NWL EMIS Enterprise S&R → Cardiovascular & Renal → NWL ICS Custom → Cardiorenal Metabolic (CRM) Review ES 2026/27

➢ **KPI/Enhanced Services metrics – please refresh**

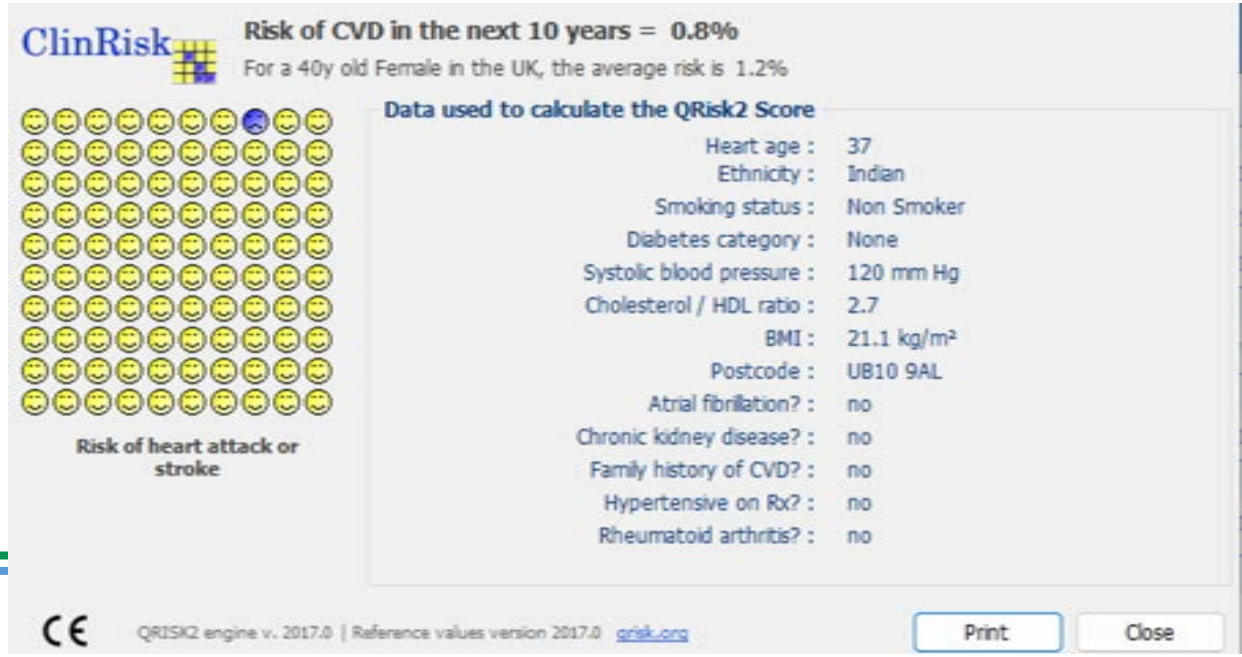
- Look in the NWL Enhanced Services 2026 27 v1.0
- Folder 05 Cardiovascular – Renal – Metabolic (CRM)

➢ Run – your practice KPI - it will give you an indication of the practice case loads

QRISK2

Calculate

Next to it is light blue "view" button – click this….



From progression to prevention: A new paradigm for success in chronic kidney disease

Dr. Andrew Frankel

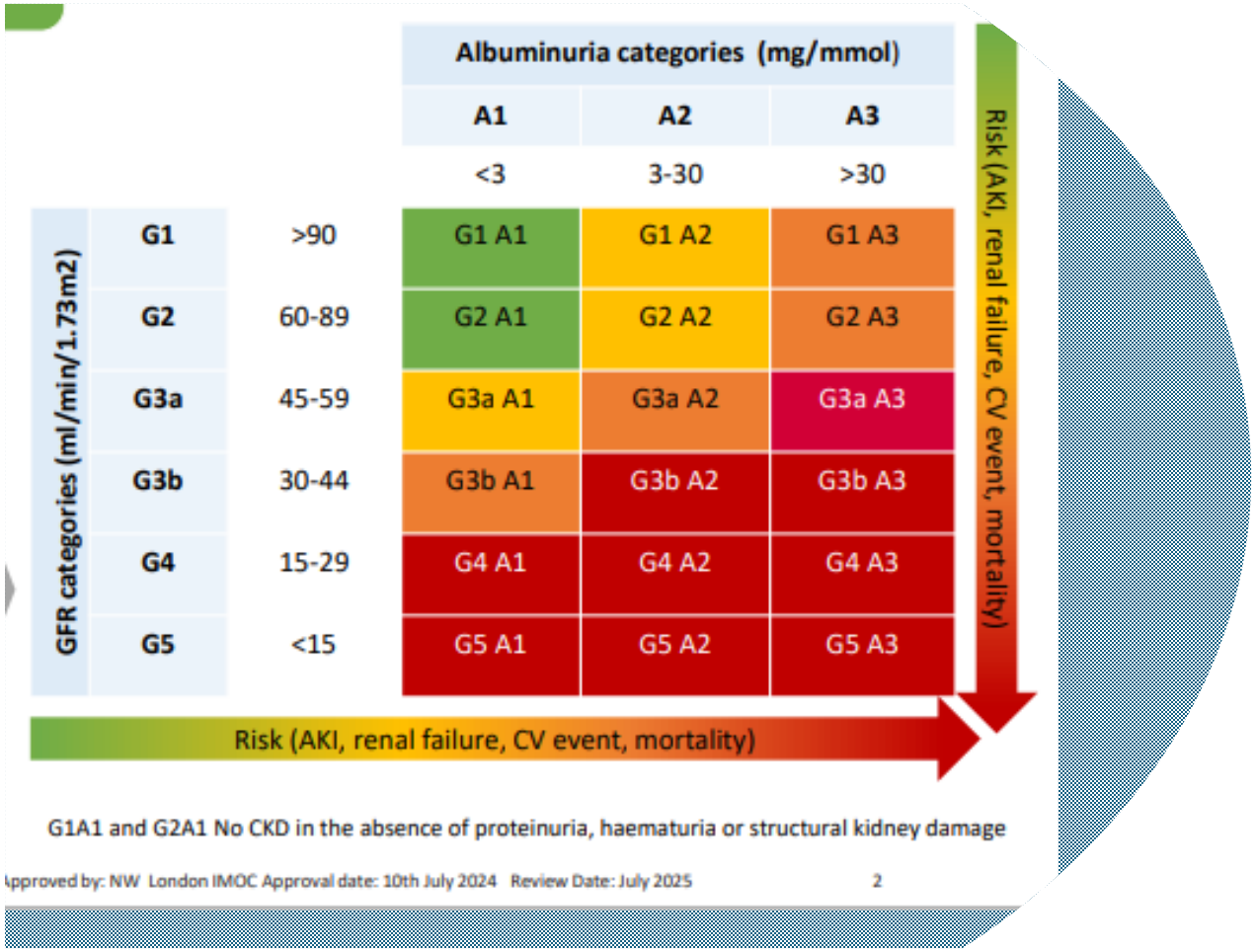
Consultant Nephrologist

Imperial College Kidney & Transplant Institute

Imperial College London

Imperial College Healthcare NHS Trust

Definitions



GFR categories (ml/min/1.73m2)			Albuminuria categories (mg/mmol) A1 <3	A2 3-30	A3 >30
	G1	>90	G1 A1	G1 A2	G1 A3
	G2	60-89	G2 A1	G2 A2	G2 A3
	G3a	45-59	G3a A1	G3a A2	G3a A3
	G3b	30-44	G3b A1	G3b A2	G3b A3
	G4	15-29	G4 A1	G4 A2	G4 A3
	G5	<15	G5 A1	G5 A2	G5 A3

G1A1 and G2A1 No CKD in the absence of proteinuria, haematuria or structural kidney damage

Chronic Kidney Disease

CKD is defined as abnormalities of kidney structure or function, present for a minimum of 3 months, with implications for health. (1)

Kidney Health Check

Blood (eGFR)
Urine ACR
Urine dip haematuria (≥ 1+)
Blood pressure

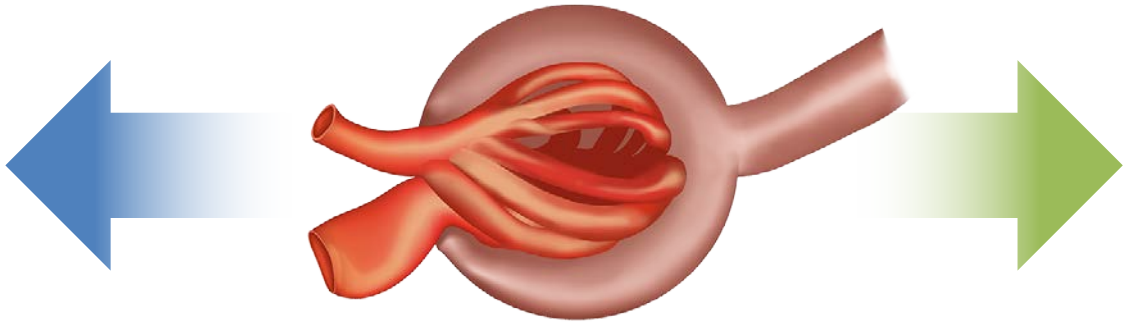
1 -KDIGO-2024-CKD-Guideline.pdf

Recognition – The Kidney Health Check

Imperial College Healthcare NHS Trust

Reduced eGFR

Creatinine clearance is reduced



Albuminuria

Protein leaks through glomerular basement membrane[1]

eGFR is an important indicator of CV risk and progression[2]

but

eGFR testing alone does not give a true picture of a patient's risk of worsening outcomes such as DKD progression and MACE

- eGFR: estimated glomerular filtration rate; CV: cardiovascular; DKD: diabetic kidney disease; MACE: major adverse cardiovascular events.

- Reidy K, et al. J Clin Invest 2014;124:2333-40.
- NICE Guideline CG182. Chronic kidney disease in adults: assessment and management. July 2014. [Accessed July 2020]. www.nice.org.uk/guidance/cg182

Who should be screened? – Reveal the hidden boxes

?

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gout

Recommendations | Chronic kidney disease: assessment and management | Guidance | NICE

Who should be screened?

Diabetes

Yearly

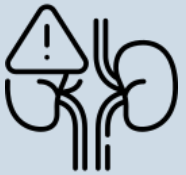
Hypertension

Yearly, or up to 5 yearly if BP well controlled

Cardio Vascular Disease

ischaemic heart disease, chronic heart failure, peripheral vascular disease or cerebral vascular disease

Acute kidney Injury



Yearly for 3 years

Multisystem diseases

eg arthritis, lupus, HIV, psoriasis, gout

Structural renal tract disease

e.g. prostate hypertrophy, renal calculi

Incidental hematuria or proteinuria

Family Hx of kidney failure

Eg. Polycystic kidney disease

Recommendations | Chronic kidney disease: assessment and management | Guidance | NICE

Management of CKD: 2025

Imperial College Healthcare NHS Trust

RECOGNISE

TREAT

1. ACE inhibitor/ARB
2. SGLT2 inhibitors
3. BP targeting
4. Finerenone (DKD)
5. GLP1 Receptor Agonists
6. Glycaemic control

FOUNDATION

REDUCE CV RISK

- Lipids and Lifestyle changes

ENGAGE

- Patient engagement
- Social factors

ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; BP, blood pressure; CKD, chronic kidney disease; CV, cardiovascular; SGLT2, sodium-glucose cotransporter-2.

How Early is Early?

How Early is Early?

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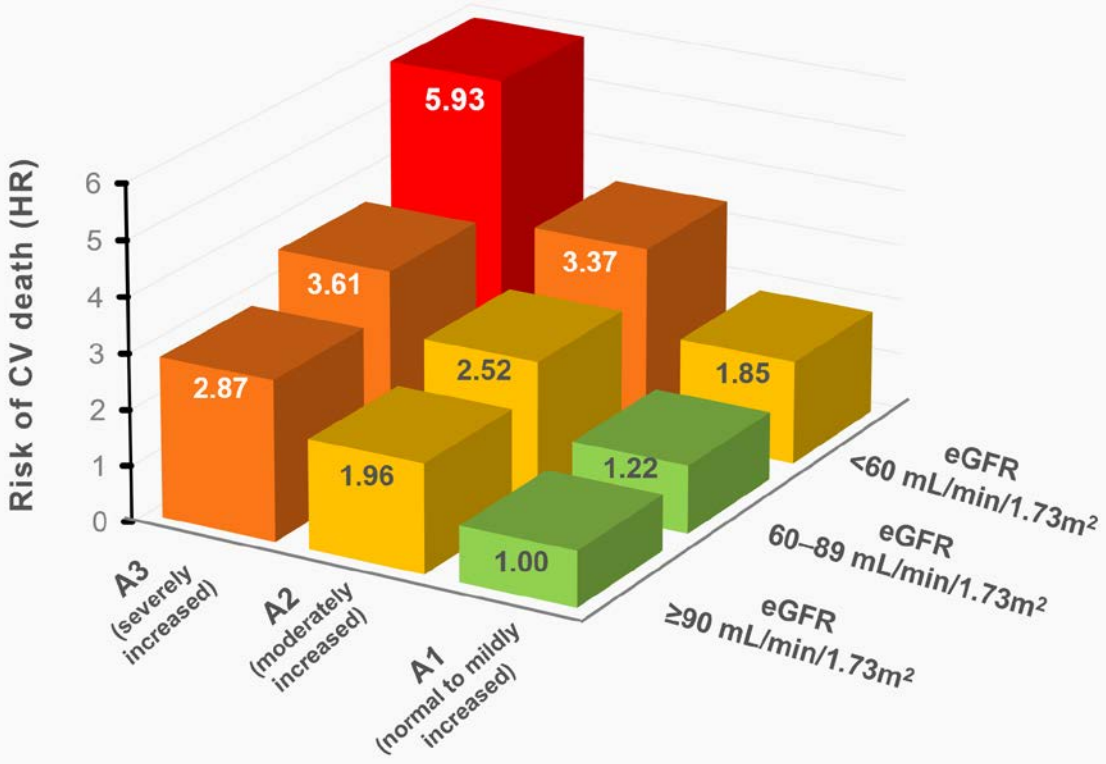
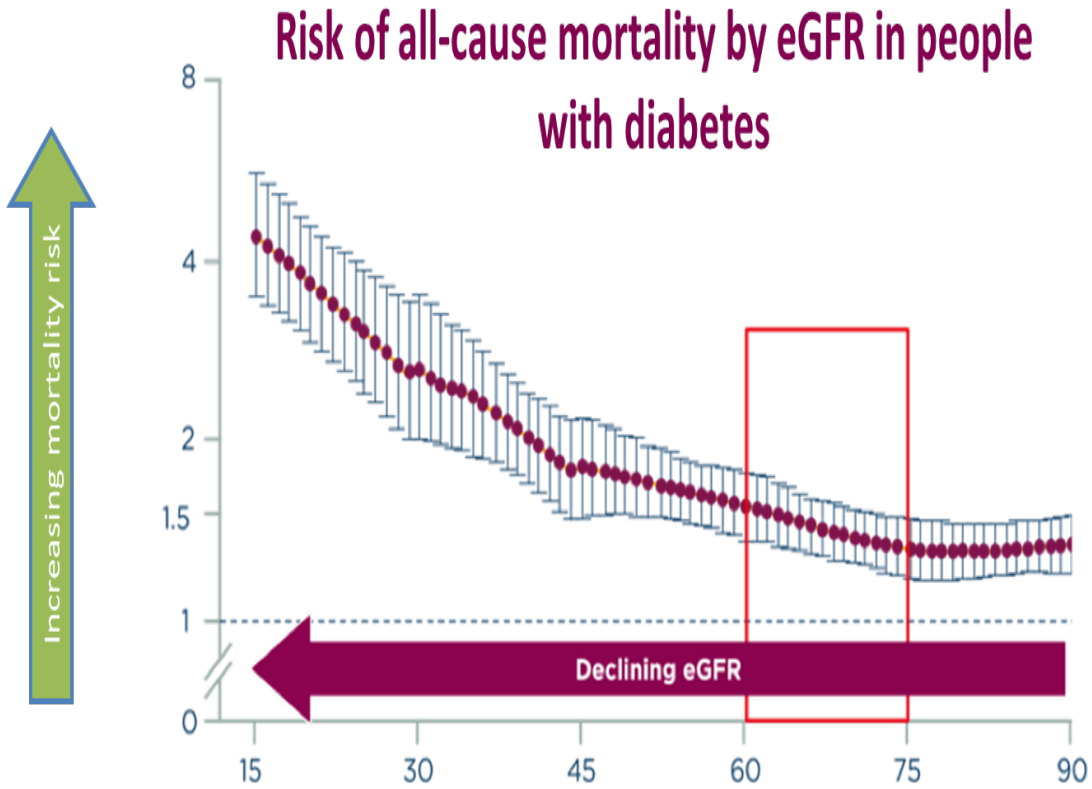
NHS Trust



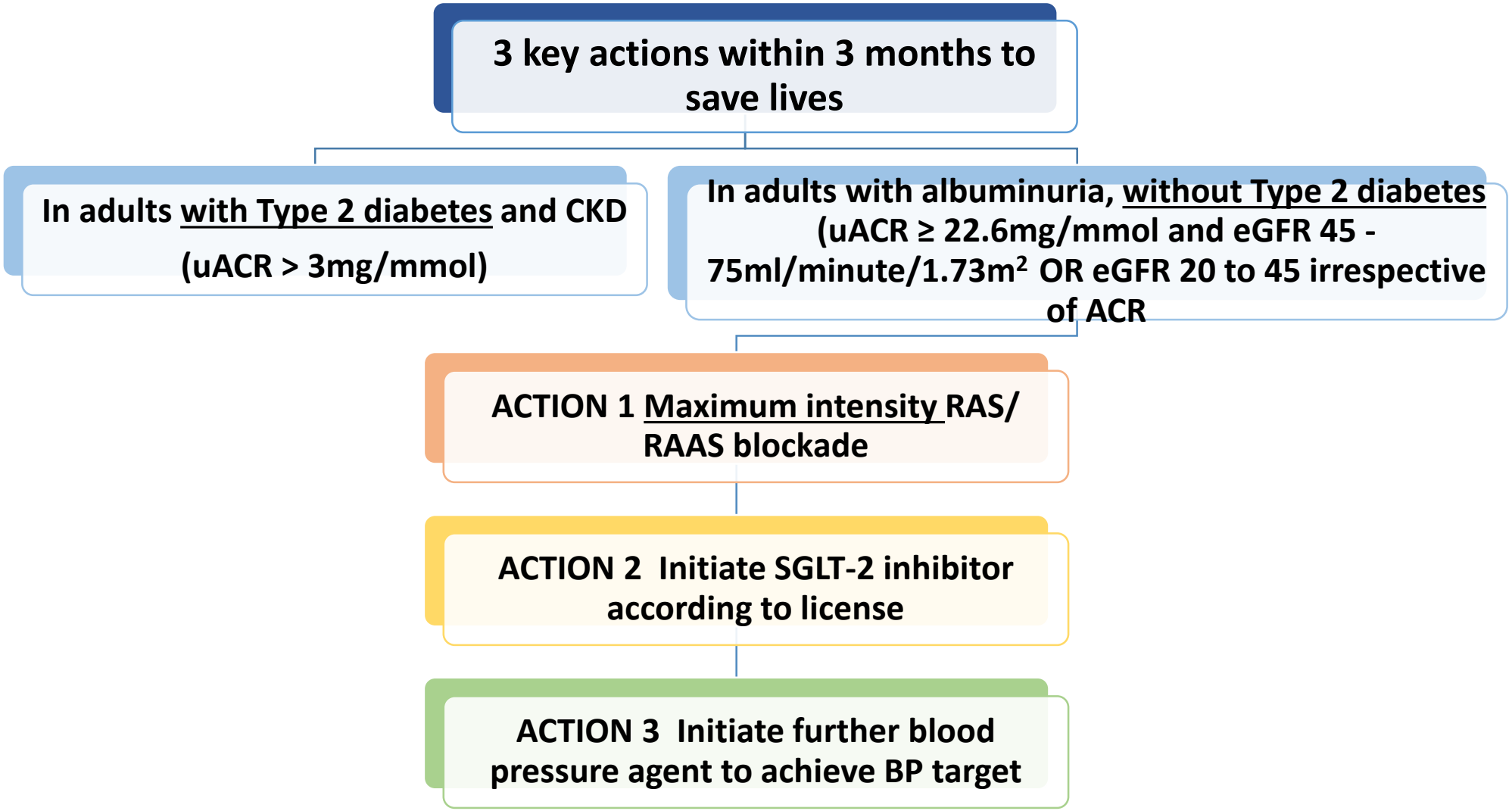
Average time to follow up: 4.3 years.
American Society of Nephrology, Ninomiya T *et al*. 2009.[2]



Fox C *et al. Lancet* 2012;380:1662-1673

How Quickly is Quickly?

London Kidney Network "3in3" Initiative



Chronic Kidney disease – RAASi up-titration guidance

North West London Integrated Care System

NWL KIDNEY CARE

Confirm if the patient suitable for rapid RAASi up-titration

Avoid rapid RAASi up-titration In patients with low baseline blood pressure or with significant comorbidities

Consider reducing other BP agents
Use individualised BP targets when significant frailty (page 13)
Attempt slower RAASi up-titration

Start ACEi (or ARB if ACEi not tolerated) at half max daily dose
(e.g. Ramipril 5mg OD or irbesartan 150mg OD)
Advise on sick day rules
Advise patient to maintain good fluid input 1-2L/day depending on size

Check Creatinine and potassium 1 to 2 weeks after initiation

Creatinine and eGFR
Accept a serum creatinine rise up to 30% or eGFR fall of 25%: after ACEi/ARB initiation or dose increase

If renal function deterioration greater than stated above seek nephrologist advice (to exclude possible renovascular disease) ICHC-tr.ckdadvice@nhs.net, and

STOP ACEi/ARB if no other causes of deteriorating renal function (e.g. dehydration, use of NSAIDs) is found

Review blood results and blood pressure. If appropriate continue dose increment

Increase ACEi/ARB dose to maximum tolerated
(e.g. Ramipril 10mg OD or Irbesartan 300mg OD)

Check Creatinine and potassium 1 to 2 weeks after dose increase

Potassium (K+)
click here for hyperkalaemia management algorithm

If K>6.0 stop ACEi/ARB and start low potassium diet

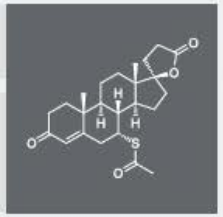
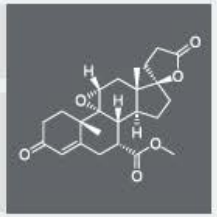
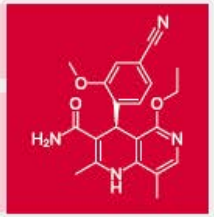
if the patient has proteinuria or heart failure with reduced ejection fraction and would benefit from an ACEi/ARB seek nephrologist advice as introduction of potassium binders, diuretics or bicarbonate can facilitate reintroduction of these agents.

Concomitant use of ACEi/ARB with spironolactone and other potassium sparing diuretics requires monitoring of potassium

Review blood results and blood pressure. If appropriate continue max dose

Characteristics of finerenone & currently available MRAs[1]

Imperial College Healthcare NHS Trust

Characteristic[1]	Spironolactone	Eplerenone	Finerenone
			
Mineralocorticoid receptor class	Steroidal	Steroidal	Non-steroidal
Potency	High	Low	High
Selectivity	Low	Medium	High
Metabolites	Multiple active metabolites	No active metabolites	No active metabolites
Half-life	Long ≥24 h	Medium to short 3-6 h	Short 2-3 h
Tissue distribution in rodents	Concentrated in the kidney >6 : 1	Concentrated in the kidney 3 : 1	Balanced 1 : 1

Finerenone is highly selective for the mineralocorticoid receptor, with no relevant affinity for the glucocorticoid , androgen, estrogen or progesterone receptors[2]

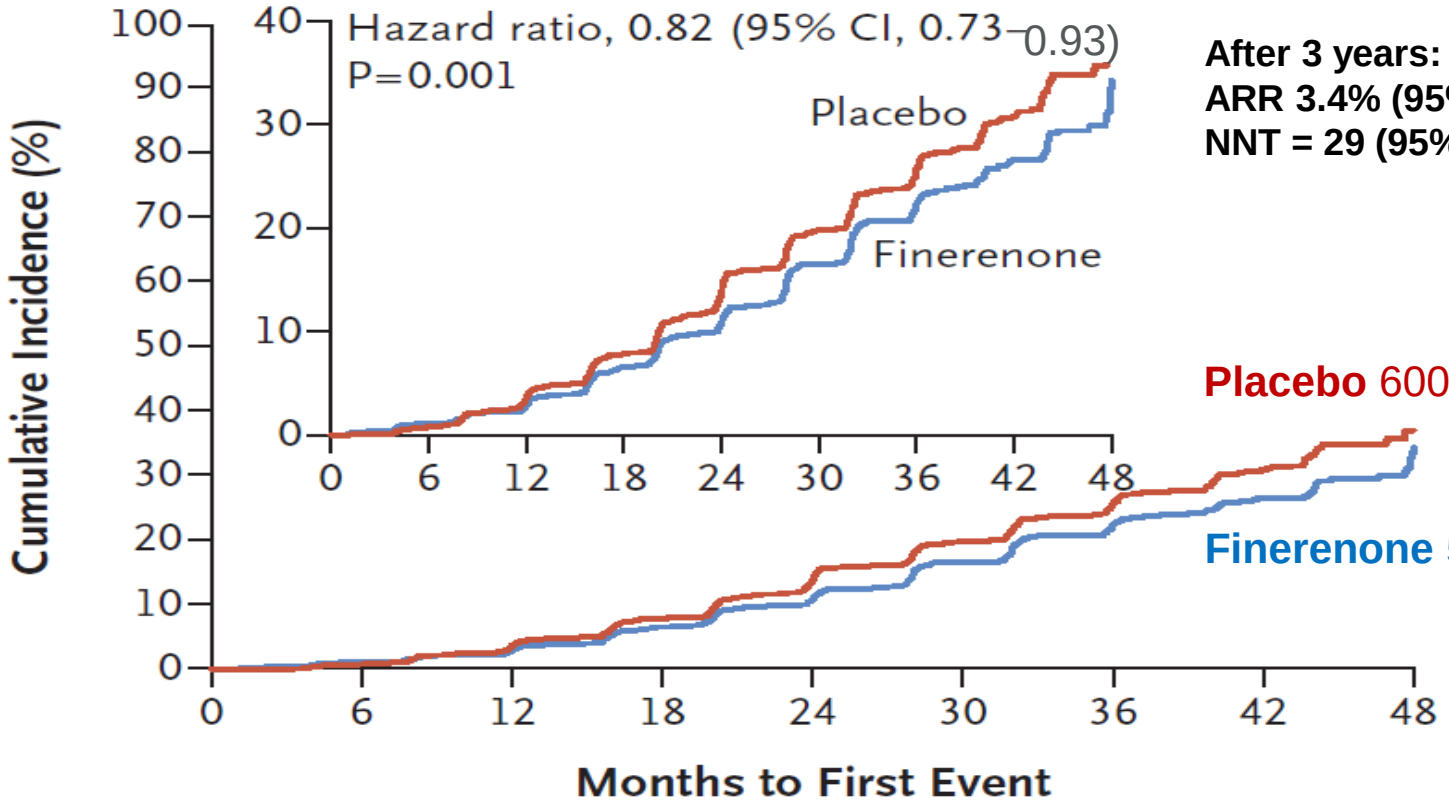
Finerenone has not been compared to currently available MRAs in phase 3 clinical trials
The clinical consequences of differences between the characteristics described is therefore unknown

1. Kolkhof P *et al*. Handb Exp Pharmacol 2017; 243: 271-305. 2. Frampton JE. Drugs 2021; 81(15): 1787-94.

FIDELIO - Primary Renal Composite Endpoint

Imperial College Healthcare NHS Trust

Kidney failure*, sustained ≥40% decrease in eGFR from baseline over a period of at least 4 weeks, or death from renal causes#



After 3 years:
ARR 3.4% (95% CI, 0.62-6.2)
NNT = 29 (95% CI 16-166)

Placebo 600/2841 (21.1%)‡

Finerenone 504/2833 (17.8%)‡

‡Median follow up 2.6 years

No. at Risk

Placebo	2841	2724	2586	2379	1758	1248	792	453	82
Finerenone	2833	2705	2607	2397	1808	1274	787	441	83

*ESKD or an eGFR <15 ml/min/1.73 m^2; #Events were classified as renal death if: (1) the patient died; (2) KRT had not been initiated despite being clinically indicated; & (3) there was no other likely cause of death;

ARR, absolute risk reduction; CI, confidence interval; ESKD, end-stage kidney disease; HR, hazard ratio; NNT, number needed to treat

Adapted from Bakris GL et al., N Engl J Med 2020; 383:2219-2229

Finerenone Initiation Criteria (NICE 2024)

- Adult patient
- Type 2 DM
- GFR 25 to 60 **GFR >45 can be prescribed in Primary Care on Specialist Advice**
- Treated with an appropriate dose of ACEi/Ag2RB and SGLT2i or intolerant to one of these
- Persistent Albuminuria (ACR >3)
- K < 5

Prescribing

Eligibility (as per NICE TA877) & Care setting:

- Patients with diabetic kidney disease and albuminuria

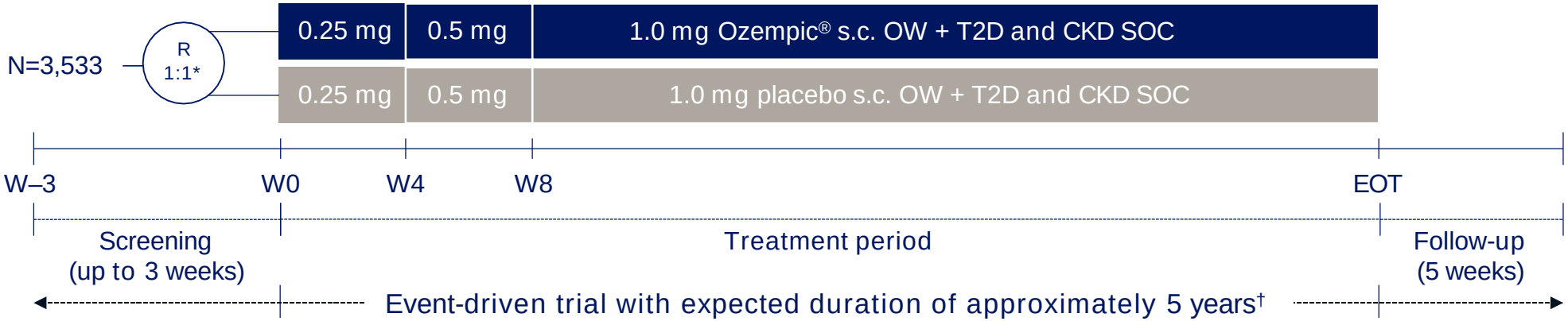
eGFR level	Care setting (Aligned with draft updated NW London CKD guidelines)
>45-59ml/min	Primary care initiation with specialist recommendation *(Amber 1)*
25-45ml/min	Specialist initiation and stabilisation required *(Amber 2)*
<25ml/min	Not recommended

Benefits of the proposed change:

- Faster access to finerenone for eligible patients
- Reduced waiting times for general nephrology appointments
- Earlier optimisation of renal-protective therapy
- Streamline CKD pathways and supports timely treatment initiation

FLOW trial design

- Randomised, double-blind, parallel-group, multinational phase 3b trial
- Included a broad patient population with both CKD and T2D and at high risk for progression of CKD
- Number of participants with eGFR ≥60 mL/min/1.73 m^2 at randomisation was capped at 20% to ensure predominance of participants with moderate-to-severe CKD



The first and only dedicated kidney outcomes trial in T2D with a GLP-1 RA

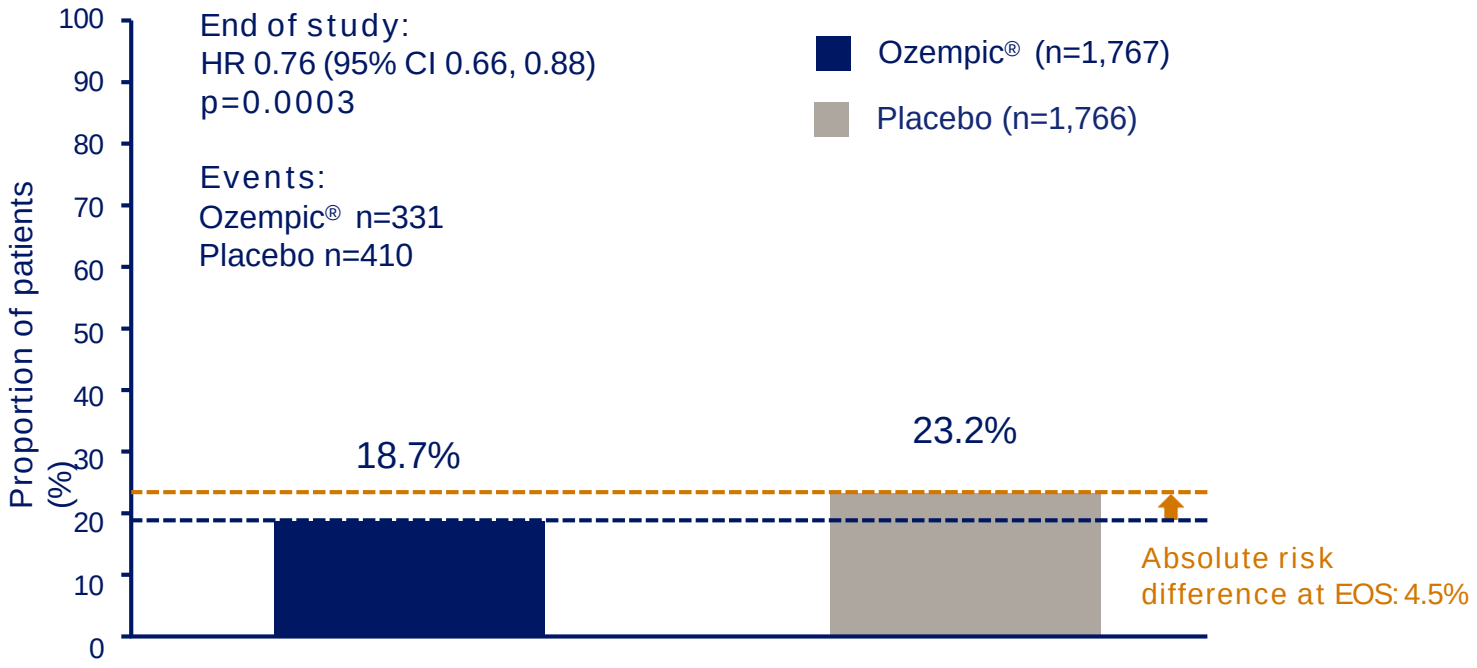
FLOW semaglutide | renal outcomes trial

*Stratified by sodium-glucose cotransporter-2 inhibitor use (yes/no). †The trial was stopped early for efficacy after median follow-up of 3.4 years.
CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; EOT, end of treatment; GLP-1 RA, glucagon-like peptide-1 receptor agonist; N, number; OW, once-weekly; s.c., subcutaneous; SOC, standard of care; T2D, type 2 diabetes; W, week.
Rossing P, et al. *Nephrol Dial Transplant*. 2023;38:2041–51.

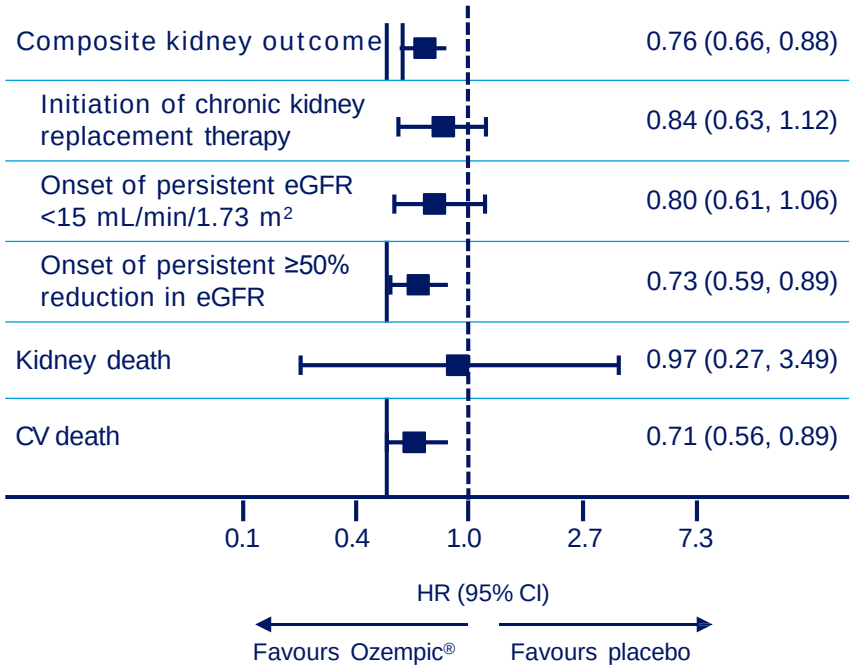
novo nordisk®

Ozempic® significantly reduced the risk of major kidney events in people living with T2D and CKD

Time to first major kidney disease event



Both kidney and CV components contributed to risk reduction of first composite kidney event

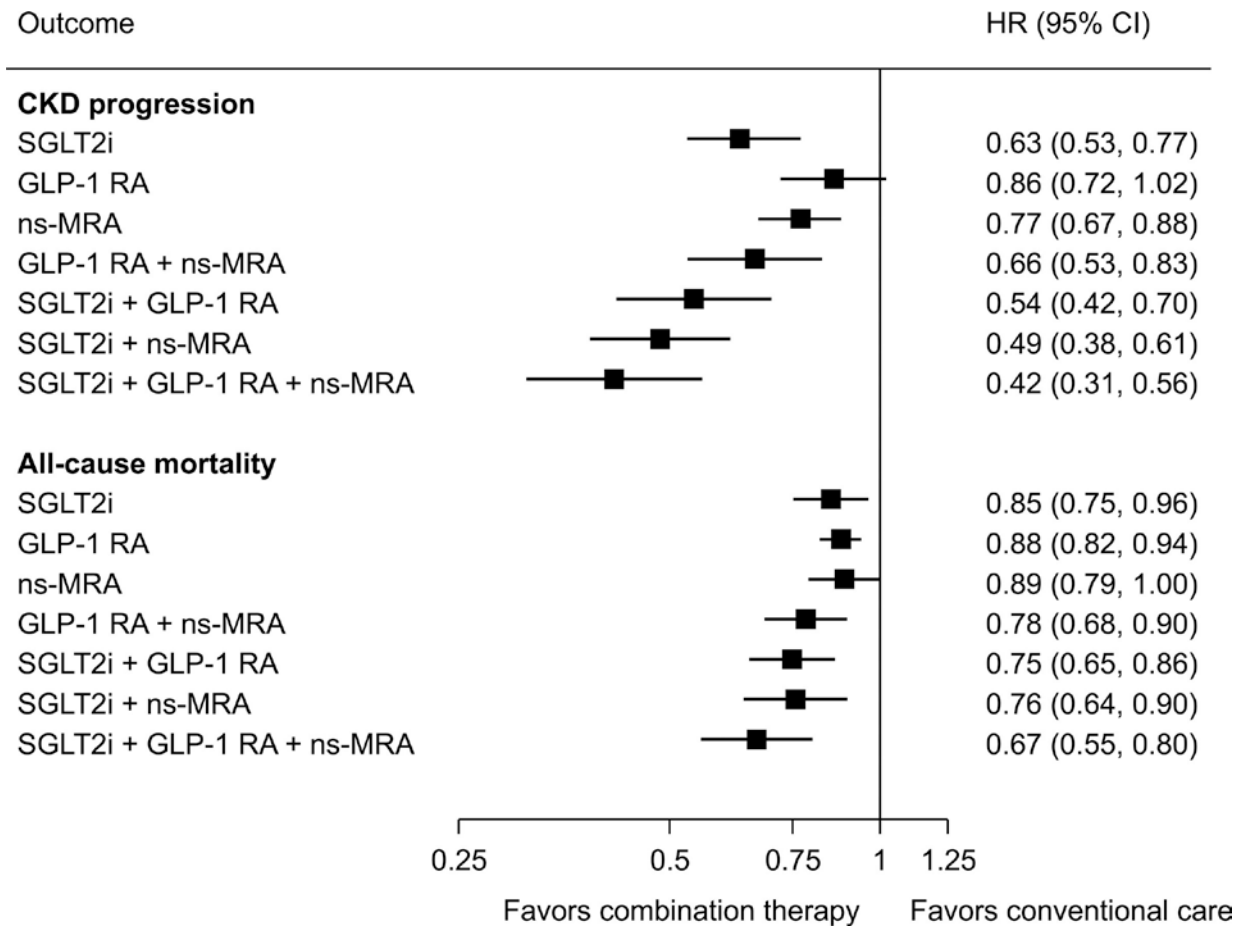


FLOW semaglutide | renal outcomes trial

Full analysis set. Data from the in-trial period.
CI, confidence interval; CKD, chronic kidney disease; CV, cardiovascular; EOS, end of study; HR, hazard ratio; T2D, type 2 diabetes.
Perkovic V, et al. *N Engl J Med*. 2024;391:109–21.

novo nordisk®

Estimated treatment effects on CKD progression and all-cause mortality with SGLT2i, GLP-1 RA, and ns-MRA, alone and in combination, when added to RAASi in patients with type 2 diabetes.



Neuen et al Circulation Volume 149, Number 6 https://doi.org/10.1161/CIRCULATIONAHA.123.067584

Peter

57 years old man

Social
Works as a chef
Lives with his partner
Drinks 8-10 units of alcohol per week (mostly beer and wine)

PMH
T2DM (16 years)
Obesity BMI 33
Background diabetic retinopathy

Medication
Metformin 1g BD
Empagliflozin 10 mg OD
Ramipril 5 mg OD
Amlodipine 5mg OD
Atorvastatin 40 mg OD

Results
eGFR 48
uACR 42
Hba1c 58
Non-HDL cholesterol 2.2
BP 134/78

Peter

57 years old man

What is the first intervention you would wish to undertake?

Peter

57 years old man

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Peter

57 years old man

What additional information may be useful?

Peter

57 years old man

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Atorvastatin 40 mg OD

Results
eGFR 48
uACR 42
Hba1c 58
Non-HDL cholesterol 2.2
BP 134/78
Potassium 4.5

Peter

57 years old man

INTERVENTIONS

1) Lifestyle and risk factor reduction
2) Ramipril optimisation
3) Finerenone 10mg OD
4) Semaglutide initiation

Peter

58 years old man – 1 year later

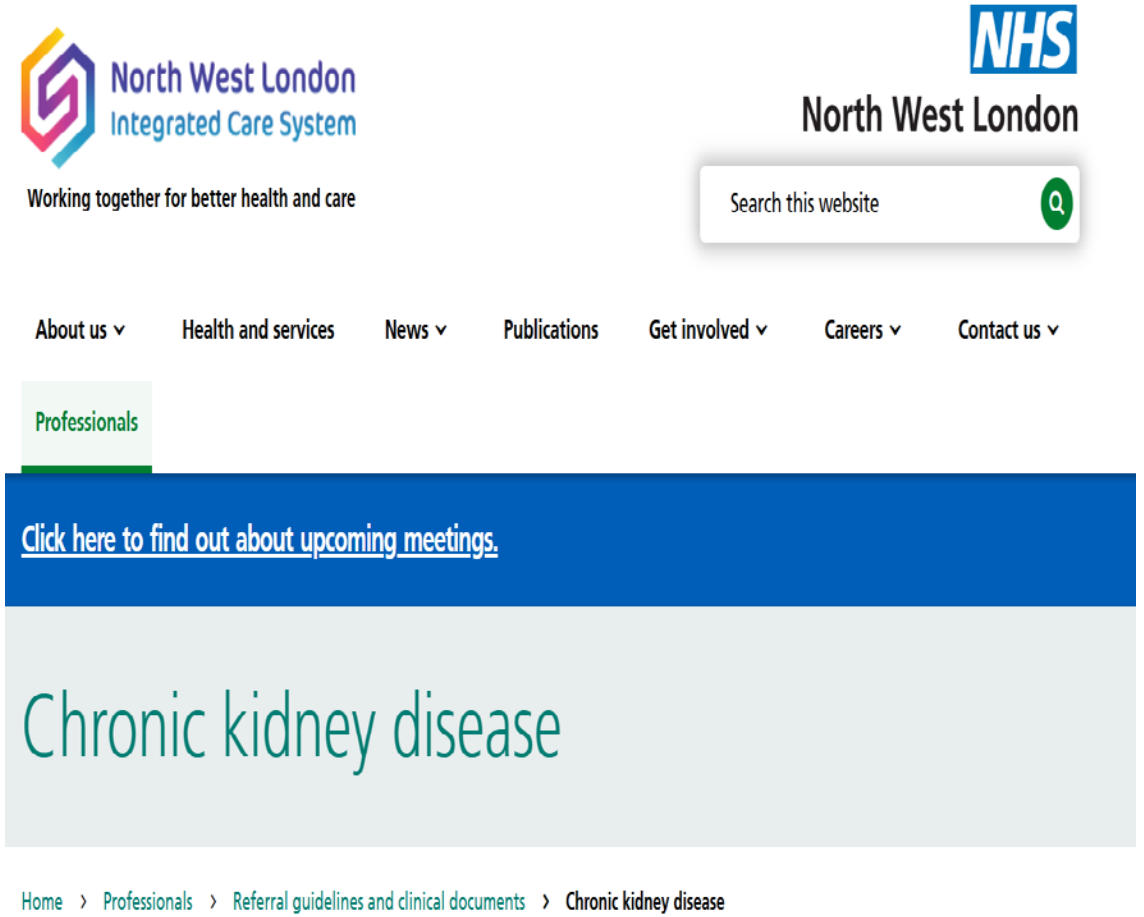
Social
Works as a chef
Lives with his partner
Drinks 4 to 6 units of alcohol per week (mostly beer and wine)

PMH
T2DM (17 years)
Obesity BMI 30
Background diabetic retinopathy

Medication
Metformin 1g BD
Empagliflozin 10 mg OD
Ramipril 10 mg OD
Amlodipine 2.5mg OD
Finerenone 10mg OD
Semaglutide 1mg once weekly
Atorvastatin 40 mg OD

Results
eGFR 39
uACR 12
Hba1c 52
Non-HDL cholesterol 2.2
BP 129/75
Potassium 5.2

https://www.forkidneyssake.com/



www.nwlondonics.nhs.uk/ckdguidelines