FINERENONE IN DIABETIC KIDNEY DISEASE

TARGET AUDIENCE	Secondary Care
PATIENT GROUP	Adult patients with CKD stage 3 and 4 with proteinuria associated with type II diabetes

Clinical Guidelines Summary

Finerenone is a non-steroidal mineralocorticoid receptor antagonist (MRA) which is approved for the treatment of chronic kidney disease (stage 3 and 4 with proteinuria) associated with type 2 diabetes in adults.

In addition to renin angiotensin system (RAS) blockade, it has been shown to reduce the risk of a primary composite renal outcome (kidney failure, sustained decrease in eGFR, or death from renal cause) compared with placebo.

It will be initiated and monitored in secondary care. Ongoing supply will be with patient's routine medicines in primary care.

There is a risk of hyperkalaemia and this needs monitored closely.

FINERENONE IN DIABETIC KIDNEY DISEASE GUIDELINE

Finerenone has been shown to reduce renal and cardiac endpoints compared to placebo with less hyperkalaemia than non-selective MRA in people with DKD and proteinuria.

FIDELIO – Finerenone reduced risk of end stage kidney disease (ESKD), death from ESKD, and >40% reduction in GFR by 18% compared to standard of care in 5734 diabetic kidney disease (DKD) subjects with urine albumin creatinine ratio (ACR) 30-300mg/g and eGFR 25-60ml/min and diabetic retinopathy; or DKD with ACR 300-5000 and eGFR 25-75 ml/min.
In FIGARO, finerenone reduced risk of MI, stroke, HF admission by 17% compared to placebo in 7437 DKD subjects with urine ACR 30-300mg/g and eGFR 25-60ml/min and diabetic retinopathy; or DKD with ACR 300-5000mg/g and eGFR 25-75mlmin.
Hyperkalaemia, defined as potassium (K+) >5.5 mmol/l, was seen in 11 vs 5%.

Sodium-glucose co-transporter 2 inhibitors (SGLT2i) use was not common in the FIDELIO trial. Subgroup analysis in FIDELIO and FIGARO has suggested possible additional cardiovascular benefit with combination use. Combination trials (MIRACLE and CONFIDENCE) should give more information soon.

ABCD guideline suggests:

In people with T2DM and CKD who have persistent albuminuria (ACR>30 mg/mmol) despite use of maximum tolerated dose of RAS blockade and SGLT2i, consider addition of finerenone to reduce the risk of adverse kidney and cardiovascular outcomes.

Finerenone can be used either as a second line drug in addition to angiotensin-converting enzyme inhibitor (ACEi) or angiotensin receptor blocker (ARB) (if SGLT2i not tolerated or contraindicated) or as part of third line therapy in addition to ACEi/ARB.

Finerenone can be used if eGFR is more than or equal to 25ml/min and normal K+ concentration (<5mmol/L)

Initiate 20mg once daily if eGFR > 60ml/min
Initiate 10mg once daily if eGFR between 25 – 59 ml/min

The SmPC recommends K+ and eGFR monitoring within 28 days of initiation, restart, or dose change and then periodically thereafter.

Monitoring will be organised in secondary care.

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Recommendation for management of hyperkalaemia (as per ABCD guidance)

If K+ < 5.0 mmol/L

Initiate Finerenone

- 10mg daily if eGFR <60ml/min
- 20mg daily if eGFR >60ml/min
- Monitor K+ at 1 month after starting and then every 4 months

Continuation
Doses can be adjusted if eGFR <60ml/min but only under specialist advice and considering any change to renal function

If K+ 5.0 -5.5 mmol/L

- Continue Finerenone 10 or 20 mg daily
- Monitor K every 4 months

If K+ > 5.5 mmol/L

- Discontinue Finerenone
- Consider adjustment to diet or concomitant medications
- Recheck K+ in 3 days' time

Consider reinitiating 10 mg dose when K+ < 5 mmol/L

Novel potassium binders (Lokelma and Patiromer) are approved for use for this indication, but their specific use was not detailed in ABCD guidance. Use and monitoring should be under careful specialist supervision.

Cautions

Heart failure patients have not been studied
Moderate hepatic impairment may result in higher finerenone concentrations and additional monitoring would be required

Contraindications

Hypersensitivity to active ingredient or excipient
Concomitant treatment with strong CYP3A4 inhibitors (e.g. clarithromycin, itraconazole, ketoconazole, ritonavir)
Addison's Disease
Previous allergy to MRA
Pregnancy or breastfeeding
Severe hepatic impairment

Interactions

K+ should be monitored with concomitant use of moderate or weak CYP3A4 inhibitors (e.g. erythromycin, fluvoxamine)
Should not be use with strong or moderate CYP3A4 inducers (e.g. rifampicin, carbamazepine , phenytoin, St Johns Wort)
Grapefruit and grapefruit juice should not be consumed during treatment
Those on antihypertensives may require additional blood pressure monitoring
Current treatment with other MRA or potassium sparing diuretic is not recommended
Concomitant use of potassium supplements or trimethoprim containing products is not recommended

Adverse effects

Very common and common adverse effects include hyperkalaemia, hypotension, hyperuricaemia, decreased GFR, hyponatraemia and pruritus

Withdrawal

As per hyperkalaemia guidance above
Discontinue if eGFR <15 ml/min

References/Evidence

References

SMC 2486 Finerenone, October 2022

Finerenone in the management of diabetic kidney disease: A consensus statement by the Association of British Clinical Diabetologists and UK Kidney Association https://abcd.care/sites/default/files/resources/ABCD%20UKKA%20-%20Finerenone%20Consensus%20Statement.pdf

Bakris NEJM 2020 383 2219, https://www.nejm.org/doi/full/10.1056/NEJMoa2025845

Pitt NEJM 2021 385 2252, https://www.nejm.org/doi/full/10.1056/nejmoa2110956

Appendices

1. Governance information for Guidance document

Lead Author(s):	Jack Fairweather
Endorsing Body:	ADTC
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Responsible Person (if different from lead author)	

CONSULTATION AND DISTRIBUTION RECORD	
Contributing Author / Authors	Jack Fairweather (Renal Consultant) Alastair Rankin (Renal Consultant) Alison Yule (Renal Pharmacist)
Consultation Process / Stakeholders:	Review and discussion with renal consultant group NHS Lanarkshire, along with senior pharmacy and specialist nursing input

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Distribution	

CHANGE RECORD

Date	**Lead Author**	**Change**	**Version No.**
August 23	Jack Fairweather	*Developed NHSL guidance following recent change SMC advice and updated national guidance*	1.0
January 24	Jack Fairweather	Updated guidance with stakeholder group and updated ABCD guideline	1.2
May 2024	Alison Yule	Revision following ADTC review	1.4
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