Frimley Health and Care

Finerenone for treating Chronic Kidney Disease in Type 2 diabetes

- Mineralocorticoid receptor overactivation is associated with Chronic Kidney Disease (CKD) and cardiovascular diseases1. CKD is also affected by comorbidities, particularly type 2 diabetes. The excess glucose in Type 2 diabetes can further affect kidney function and accelerate CKD progression.
- Finerenone is an aldosterone antagonist which is now recommended by NICE as an option for treating CKD stages 3 and 4 in adults with proteinuria AND type 2 diabetes, but only if ALL 4 criteria below are satisfied2:

1. Patient has an estimated glomerular filtration rate (eGFR) of ≥ **25 ml/min/1.73m²** at the start of treatment
2. Patient has Type 2 diabetes
3. Patient is on the highest tolerated licensed dose of ACE inhibitors or angiotensin-receptor blockers **AND** sodium–glucose cotransporter-2 (SGLT2) inhibitors, unless these are contra-indicated
4. Patient has an urine albumin to creatinine ratio (uACR) of more than 3mg/mmol

FINERENONE should NOT be initiated if serum potassium > 5.0 mmol/L

BEFORE STARTING measure serum potassium and eGFR to determine starting dose.

Serum potassium level (mmol/L)	≤ 4.8	Start finerenone
	>4.8 to 5.0	Finerenone may be considered with additional serum potassium monitoring within the first 4 weeks, based on the person's comorbidities and subsequent potassium levels.
	>5.0	**Do not start finerenone**

STARTING DOSE

GFR (mL/min/1.73 m$^{2)}$	**Starting dose (once daily)**
≥ 25 to < 60	10 mg
< 25	**Not recommended**

MONITORING

Measure serum potassium and eGFR 4 weeks after initiation or re-start of finerenone treatment or increase in dose. Thereafter, measure serum potassium every 6 months for CKD 3 and every 4 months for CKD 4 patients aligning with their CKD review.
Expect a transient decline in eGFR (mean 2 mL/min/1.73m^2) and a drop in blood pressure (2 – 4 mmHg) upon initiating treatment. Both are reversible during continuous treatment.

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Continued finerenone doses will depend on serum potassium levels:

		Current finerenone dose (once daily)	
		10mg	**20mg**
Current serum potassium (mmol/L)	**≤ 4.8**	Increase to 20 mg finerenone once daily*	Maintain 20 mg once daily
	> 4.8 to 5.5	Maintain 10 mg once daily	Maintain 20 mg once daily
	> 5.5	Withhold finerenone. Consider re-starting at 10 mg once daily when serum potassium ≤ 5.0 mmol/L.	Withhold finerenone. Re-start at 10 mg once daily when serum potassium ≤ 5.0 mmol/L.

WHEN TO STOP finerenone: when eGFR is < 15 mL/min/1.73m^2

Administration

- Take tablets with a glass of water and with or without food
- Tablets may be crushed and mixed with water or soft foods, such as apple sauce, directly before oral use. Do not take with grapefruit juice (interaction)

Interactions (see BNF or SPC)

- **Strong CYP3A4 inhibitors** (concomitant use contraindicated): itraconazole, clarithromycin, ketoconazole, ritonavir, nelfinavir, cobicistat, telithromycin and nefazodone
- **Strong and moderate CYP3A4 inducers** (concomitant use not recommended): rifampicin, carbamazepine, phenytoin, phenobarbital, St John's Wort, efavirenz
- **Medicines that increase serum potassium** (concomitant use not recommended): potassium-sparing diuretics (amiloride, triamterene), other MRAs (eplerenone, esaxerenone, spironolactone, canrenone)
- **Grapefruit juice**

Please report any suspected adverse reactions using the Yellow Card Scheme
http://www.mhra.gov.uk/yellowcard

Contraindications (see BNF or SPC)

- Addison's disease
- Hyperkalaemia (k>5mmol/L)
- Severe hepatic impairment
- Hypersensitivity to the active substance or to any of the excipients

Pregnancy and breastfeeding (see BNF or SPC)

- Avoid in pregnancy unless potential benefit outweighs risk.
- Animal studies have shown reproductive toxicity.
- Women of childbearing potential should use effective contraception during treatment.
- Avoid breastfeeding unless potential benefit outweighs risk.
- Not known if finerenone or metabolites are excreted in human milk. Animal studies have shown excretion of finerenone and metabolites in milk.

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Finerenone is integral to the management of CKD and Type 2 diabetes:

RECOGNISE	Case finding/usual care
TREAT	ACEI/ARB SGLT2i BP targeting Finerenone Glycaemic control
REDUCE CV RISK	Lipids & lifestyle changes

References

1) Bakris G, Agarwal R and Anker S et al. Effect of Finerenone on Chronic Kidney Disease Outcomes in Type 2 Diabetes. *N Engl J Med* 2020;383:2219–2229
2) NICE TA – Finerenone for treating CKD in type 2 diabetes. Technology appraisal guidance [TA877] Published: 23 March 2023
3) SPC for Kerendia 10 mg film-coated tablets. Last updated on 21MAR2023. Accessed via https://www.medicines.org.uk/emc/product/13437/smpc#gref

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