Report Kerendia® finerenone

Product & Mechanism of action	Authorized indications Licensing status	Essential therapeutic features	NHS impact
Substance: finerenone **Brand Name:** Kerendia **Originator/licensee:** Bayer AG **Classification:** NCE **ATC code:** C03DA05 **Orphan Status:** **Eu:** No **Us:** No **Mechanism of action:** Finerenone is a nonsteroidal, selective antagonist of the MR, which is activated byaldosterone and cortisol and regulates gene transcription. Finerenone blocks MR mediated sodium reabsorption and MRoveractivation in both epithelial (e.g., kidney) and nonepithelial (e.g., heart, and blood vessels) tissues. MR overactivationis thought to contribute to fibrosis and inflammation. Finerenone has a high potency and selectivity for the MR and has norelevant affinity for androgen, progesterone, estrogen, and glucocorticoid receptors [1].	**Authorized Indication:** **EMA:** finerenone is indicated for the treatment of CDK (stage 3 and 4 with albuminuria) associated with T2D in adults[2]. **FDA:** finerenone is indicated to reduce the risk of sustained eGFR decline, end stage kidney disease, cardiovascular death, non-fatal myocardial infarction, and hospitalization for heart failure in adult patients with CKD associated with T2D [1]. **Route of administration:**OS **Licensing status** **EU CHMP P.O. date:** 16/12/2021 **FDA M.A. date:** 09/07/2021 **EU Speed Approval Pathway:** No **FDA Speed Approval Pathway:** No --- **ABBREVIATIONS:** **AE:** adverse event **ACEi:** angiotensin-converting enzyme inhibitor **ARB:** angiotensin receptor blocker **BL:** baseline **CHMP:** Committee for Medicinal Products for Human Use **CKD:** chronic kidney disease **CVD**: cardiovascular disease **eGFR:** estimated glomerular filtration rate **GLP-1-RA:** glucagon-likepeptide-1 receptor agonist **HR:** hazard ratio **M.A.:** Marketing Authorization **MR:** mineralocorticoid receptor **p:** p-Value **P.O.:** Positive Opinion **Pts:** patients **SGLT2i:** sodium–glucose cotransporter-2 inhibitor **T2D:** type 2 diabetes **UACR:** urinary albumin-to-creatinine ratio **vs:** versus	**Summary of clinical EFFICACY:** **FIDELIO-DKD (NCT02540993)** is a phase 3, randomized, double-blind, placebo-controlled, multicentre trial in adults (n= 5674) with CKD associated with T2D and treated with an ACEi or ARB. Enrolled pts have an UACR of 30 to 300 mg/g, eGFR 25 to 60 mL/min/1.73 m^2 and diabetic retinopathy, or as having an UACR of ≥300 mg/g and an eGFR of 25 to 75 mL/min/1.73 m^2. Pts were allocated to receive finerenone (10mg once daily for 4 weeks and then 20mg, n=2833) or placebo (n=2841) and were followed for a median of 2.6 years. The primary outcome was a composite of kidney failure, a sustained decrease of at least 40% in the eGFR from baseline over a period of at least 4 weeks, or death from renal causes. Kidney failure was defined as chronic dialysis, kidney transplantation, or a sustained decrease in eGFR to<15 mL/min/1.73m^2. The incidence of the primary composite outcome was lower in the finerenone group than in the placebo group, (17.8% vs. 21.1; HR:0.82; 95% CI: 0.73 to 0.93; p=0.001) [1,3]. **Summary of clinical SAFETY:** **FIDELIO-DKD** trial shows that incidence of AEs was similar in the finerenone (87.3%) and placebo arms (87.5%); serious AEs occurred in 31.9% vs. 34.3%, respectively. Hyperkalemia led to permanent discontinuation of treatment occurred in 2.3% in the finerenone arm vs. 0.9% in the placebo arm. The most common non-serious AEs (in finerenone vs. placebo arms, respectively) were: hyperkalemia (15.8% vs. 7.8%), nasopharyngitis (8.5% vs. 8.8%), anemia (7.4% vs. 6.7%) [3]. **Ongoing studies:** ● ***For the same indication:***Yes ● ***For other indications:***Yes **Discontinued studies (for the same indication):** --- **References:** 1. https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/215341s000lbl.pdf 2. https://www-ema-europa-eu.translate.goog/en/medicines/human/summaries-opinion/kerendia?_x_tr_sl=en&_x_tr_tl=it&_x_tr_hl=it&_x_tr_pto=op,sc 3. Bakris GL, Agarwal R, Anker SD, et al. Effect of Finerenone on Chronic Kidney Disease Outcomes in Type 2 Diabetes. N Engl J Med. 2020;383(23):2219-2229. doi:10.1056/NEJMoa2025845 4. https://www.drugs.com/price-guide/kerendia 5. https://www.salute.gov.it/imgs/C_17_pubblicazioni_2244_allegato.pdf 6. Cosentino F. et al. "2019 ESC Guidelines on diabetes, pre-diabetes, and cardiovascular diseases developed in collaboration with the EASD." European heart journal vol. 41,2 (2020): 255-323. doi:10.1093/eurheartj/ehz486 7. Navaneethan SD, Zoungas S, Caramori ML, et al. Diabetes Management in Chronic Kidney Disease: Synopsis of the 2020 KDIGO Clinical Practice Guideline. Ann Intern Med. 2021;174(3):385-394. doi:10.7326/M20-5938 8. https://clinicaltrials.gov/ct2/results?term=finerenone&recrs=abdefgh&type=Intr&phase=2 9. https://clinicaltrials.gov/ct2/results?recrs=abdefgh&type=Intr&cond=Chronic+Kidney+Disease%2C+type+2+diabetes&phase=2	**Cost of therapy:** In U.S.A., finerenone is available in two different dosages; 30 tablets/pack of finerenone10 mg or 20 mg cost $603.64[4]. The recommended starting dose is 10 mg for the first month and then 20 mg once daily[1]. One pack of each dosage covers one month of therapy. **Epidemiology:** At 2006, in Italy the prevalence of CDK was 7.5%in men and 6.5% in women, with higher prevalence of stages 1 and 2 vs. stage 3 and 4. Globally, 40% of pts with T2D develop CKD. [5,6] --- **POSSIBLE PLACE IN THERAPY** The main treatments are: -lifestyle changes (diet, physical activity, smoking cessation); -to reduce risks of CDK and CVD: ACEi or ARB -glycemic management with metformin and SGLT2i;for pts. who cannot use these drugsa long-acting GLP-1-RA is recommend [7]. **OTHER INDICATIONS IN DEVELOPMENT:** heart failure, non-diabetic chronic kidney disease [8] **SAME INDICATION IN EARLIER LINE(S) OF TREATMENT:**- **OTHER DRUGS IN DEVELOPMENT for the SAME INDICATION:** bardoxolone, bydureon, omarigliptin, sotagliflozin [9] *Service reorganization: No *Possible off label use: No

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