Utilization of nonsteroidal MRA finerenone: Evaluation of real-world data in the United States, 2021 – 2023

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Introduction

- The dual burden of chronic kidney disease (CKD) and type 2 diabetes (T2D) is associated with severe outcomes, including increased risk of end-stage kidney disease and substantially higher cardiovascular and non-cardiovascular mortality compared to a diagnosis of CKD or T2D alone.[1,2]
- The nonsteroidal MRA finerenone is an approved therapy to reduce the risk of sustained estimated glomerular filtration rate decline, end stage renal disease, cardiovascular death, non-fatal myocardial infarction, and hospitalization due to heart failure in adults with T2D and CKD.[3-5]

Objective

- To describe utilization of finerenone in patients two years after its approval.

Methods

Study Design

- Cross-sectional study using data from the Veradigm Network EHR spanning August 1, 2016–September 30, 2023

Study Cohort

- Patients with CKD and T2D who were prescribed finerenone (Figure 1)

≥1 diagnosis of T2D and ≥ 1 diagnosis of CKD (or ≥1 diagnosis indicating both T2D and CKD) during the study time period (8/1/2016–9/30/2023) AND a prescription or visit during patient selection (8/1/2021–9/30/2023)
N = 1,482,645

↓

Age ≥18 on the index date*
N = 1,482,643

↓

At least 12M of baseline data
N = 1,363,885

↓

Patients with Finerenone Rx
N = 11,819

10 mg index dose
N = 9,991

20 mg index dose
N = 1,828

Figure 1: Patient Selection

*The index date is the date of the patient's first prescription for finerenone in the EHR. CKD, chronic kidney disease; Rx, prescription; T2D, type 2 diabetes

Study Variables

- Demographic characteristics
- Clinical characteristics: comorbidities, baseline medication usage, baseline estimated glomerular filtration rate (GFR) and urine albumin-creatinine ratio (UACR) measured during the year preceding the index date.
- Calculated KDIGO risk category for patients with both eGFR and UACR available
- Characteristics of finerenone prescribing: Initial dose, prescriber by patient geographic location, month of initiation over time

Table 1: Patient Demographics

	Patients with Finerenone Rx	
	N = 11,819	
	N/Mean	%/SD
Age, (Mean, SD)	68.3	11.2
Age Group, (N,%)		
18-44	396	3.4%
45-54	927	7.8%
55-64	2,534	21.4%
65-74	4,305	36.4%
75+	3,657	30.9%
Sex (N,%)		
Male	6,638	56.2%
Female	5,177	43.8%
Unknown/Not Reported	4	0.0%
Race (N,%)		
White	5,324	45.0%
Black	1,772	15.0%
Asian	1,407	11.9%
Other	1,822	15.4%
Unknown/Not Reported	1,494	12.6%
Ethnicity (N,%)		
Hispanic	861	7.3%
Non-Hispanic	8,842	74.8%
Unknown/Not Reported	2,116	17.9%
Geographic Region (N,%)		
Northeast	1,228	10.4%
Midwest	1,304	11.0%
South	5,178	43.8%
West	3,688	31.2%
Other/Unknown	421	3.6%

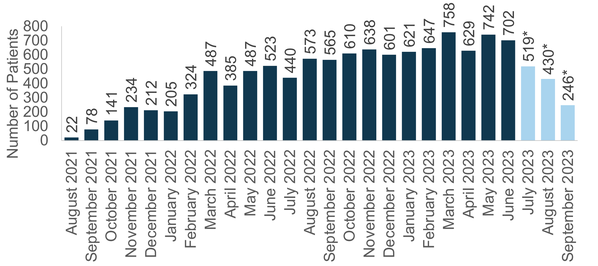
Table 2: Distribution of Risk Categories by Finerenone Initiation Dose

KDIGO Risk Category	Finerenone All	Finerenone 10 mg	Finerenone 20 mg
	N = 3,136	N = 2,640	N = 496
Low risk, N (%)	87 (2.8%)	60 (2.3%)	27 (5.4%)
Moderate risk, N (%)	690 (22.0%)	513 (19.4%)	177 (35.7%)
High risk, N (%)	983 (31.3%)	811 (30.7%)	172 (34.7%)
Very high risk, N (%)	1,376 (43.9%)	1,256 (47.6%)	120 (24.2%)

Table 3: Distribution of KDIGO Risk Groups Among Finerenone Initiators

Ranges		All Finerenone Patients			
		Albuminuria Categories (mg/g)			Total (%)
		<30	30-300	>300	
eGFR Categories (ml/min/1.73m^2)	≥90	23 (0.7%)	181 (5.8%)	165 (5.3%)	369 (11.8%)
	60-89	64 (2.0%)	275 (8.8%)	311 (9.9%)	650 (20.7%)
	45-59	234 (7.5%)	296 (9.4%)	290 (9.2%)	820 (26.1%)
	30-44	211 (6.7%)	335 (10.7%)	413 (13.2%)	959 (30.6%)
	15-29	48 (1.5%)	97 (3.1%)	185 (5.9%)	330 (10.5%)
	<15	0 (0.0%)	2 (0.1%)	6 (0.2%)	8 (0.3%)
Total (%)		580 (18.5%)	1,186 (37.8%)	1,370 (43.7%)	3,136 (100.0%)

Figure 2: Timing of Finerenone Initiation.

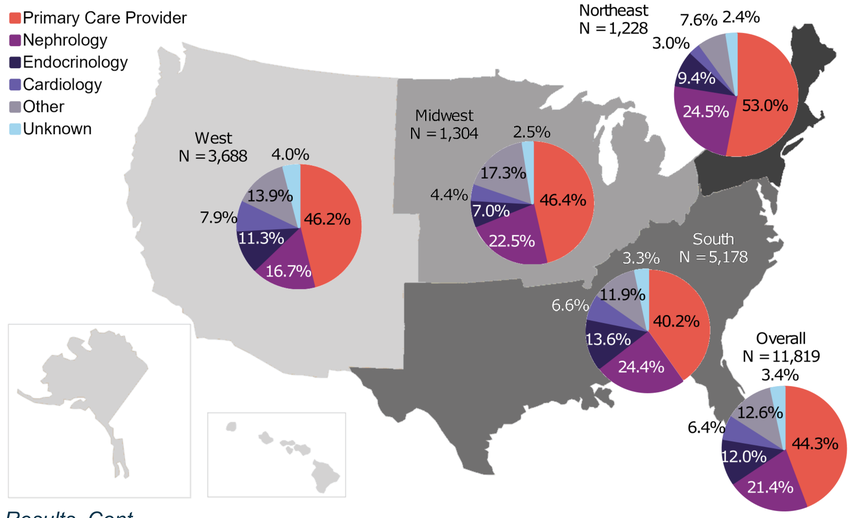


* Light blue bars indicate months with incomplete data due to data lag in the contributing EHRs.

Results

- We identified 11,819 adults diagnosed with CKD and T2D with a finerenone prescription, of which 84.5% indexed on a 10mg dose (Fig. 1).
- Patients with a finerenone prescription were 68.3 (SD: 11.2) years old, 56.2% male, 45.0% White, and 74.8% non-Hispanic (Table 1).
- The most common cardiovascular comorbidities were hypertension (89.1%), peripheral vascular disease (24.6%), and coronary artery disease (22.6%), heart failure (17.2%), and atrial fibrillation (10.1%).
- Overall, 83.4% of patients had an antihypertensive prescription and 82.9% had an antidiabetic prescription in the 12 months prior to starting finerenone. ARBs (40.2%), beta-blockers (39.0%), and calcium channel blockers (38.7) were the most common antidiabetics while SGLT-2 inhibitors (45.2%), biguanides (34.1%), and GLP-1 agonists (32.4%) were the most common antihypertensives
- Among the 3,136 finerenone users with an eGFR and UACR result, 75.2% had a high or very high risk KDIGO cardiovascular risk score (Table 2). Among those starting on a 20 mg dose, 24.2% were in the very high risk category indicating an eGFR <60 at initiation.

Figure 3: Finerenone Prescriber Type by Patient Geographic Region.



Results, Cont.

- Prescribing of finerenone increased steadily between approval in August 2021 and June 2023 (Figure 2).
- The documenting prescriber was a primary care physician for 44.3% of patients, a nephrologist for 21.4% of patients, an endocrinologist for 12.0% of patients, and a cardiologist for 6.4% of patients (Figure 3).
- Primary care physicians made up a greater share of documenting providers in the Northeast (53.0%), whereas the share of endocrinologists was greatest in the South (13.6%).

Conclusions

- In a large real-world clinical dataset, adoption of nsMRA finerenone has been growing steadily since initial approval, but it still is only used by a fraction of patients who would likely benefit from treatment.
- Among those with available lab results, 43.9% of finerenone initiators were in the very high risk KDIGO category, 31.3% in the high risk category, 22.0% in the moderate risk category, and 2.8% in the low risk category
- Among patients prescribed finerenone, there is diverse provider willingness to prescribe this new advanced therapy.
- Future work should compare CKD in T2D patients with vs without finerenone as well as associated outcomes.

References

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Disclosures

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