

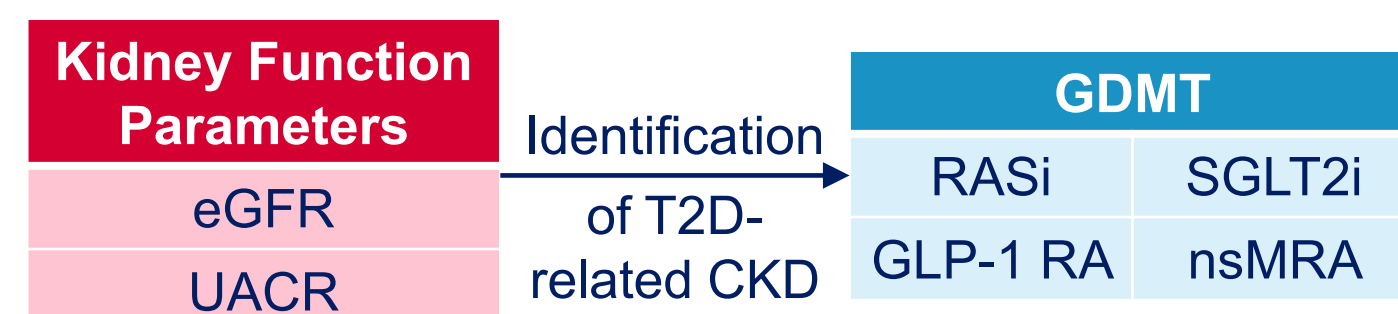
Screening Rates and Guideline-directed Medical Therapy Use in People with Type 2 Diabetes with or without Chronic Kidney Disease

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Background

- Screening for eGFR and UACR is critical to identify people who may benefit from GDMT for T2D-related CKD.¹
- Prior studies suggest that screening rates for eGFR and UACR are low in people with T2D.²
- Despite rapidly expanding therapeutic options, real-world utilization of GDMT is low.³
- This study aimed to evaluate screening rates of CKD with eGFR and UACR and GDMT prescription rates in people with T2D with and without CKD at a large academic medical center.



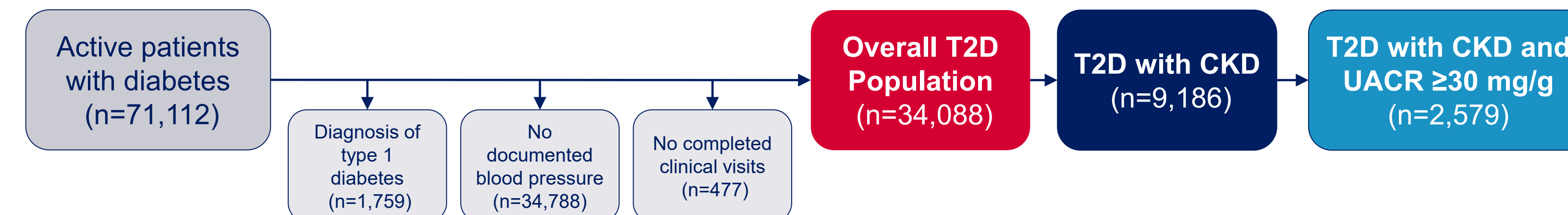
Methods

- Retrospective analysis of EHR data from a large urban tertiary care center.
- Adult patients were included if they were part of the institutional diabetes registry and “active,” defined as ≥1 completed encounter from May 4, 2023, through May 3, 2026.
- Diabetes registry inclusion was determined by ICD-10 diagnosis or active EHR problem list diagnosis of diabetes, or use of glucose-lowering medications (metformin, sulfonylureas, thiazolidinediones, DPP-4 inhibitors, or insulin).
- CKD was defined by ICD-10 diagnosis and/or an active EHR problem list diagnosis.

Disclosure
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Abbreviations
BMI, body mass index; CKD, chronic kidney disease; DPP-4, dipeptidyl peptidase-4; eGFR, estimated glomerular filtration rate; EHR, electronic health record; GLP-1 RA, glucagon-like peptide-1 receptor agonist; ICD-10, International Classification of Diseases, 10th Revision; nsMRA, nonsteroidal mineralocorticoid receptor antagonists; RASi, renin-angiotensin system inhibitor; SBP, systolic blood pressure; SGLT2i, sodium-glucose cotransporter-2 inhibitor; T2D, type 2 diabetes; UACR, urine albumin-to-creatinine ratio

Methods Continued



Results

Table 1. Baseline characteristics

	All T2D (n=34,088)	T2D with CKD (n=9,186)	T2D with CKD and UACR ≥30 mg/g (n=2,579)
Age, years	59.6 ± 14.3	65.1 ± 12.9	62.3 ± 12.8
Sex, female	19,065 (55.9)	4,503 (49.0)	1,199 (46.5)
Race			
Asian	2,130 (6.2)	467(5.1)	154 (6.0)
Black	15,655 (45.9)	4,799 (52.2)	1,313 (50.9)
White	14,998 (44.0)	3,709 (40.4)	1,054 (40.9)
Other	1,305 (3.9)	211 (2.3)	58 (2.2)
Ethnicity, not Hispanic	22,061 (64.7)	6,632 (72.2)	1,741 (67.5)
BMI, kg/m ²	32.9 ± 8.4	31.7 ± 8.1	31.8 ± 7.9
SBP, mmHg	132.3 ± 19.8	135.1 ± 21.9	136.4 ± 21.1
A1C, %	7.2 ± 2.0	6.9 ± 1.7	7.1 ± 1.8
eGFR, mL/min/1.73m ²	76.6 ± 30.5	45.7 ± 26.6	43.8 ± 27.2
UACR, mg/g	22 [10-85]	65 [17-422]	238 [74-910]

Values reported as n (%), mean ± SD, and median [IQR].

Figure 2. Rates of eGFR and UACR measurement among people with T2D with and without CKD

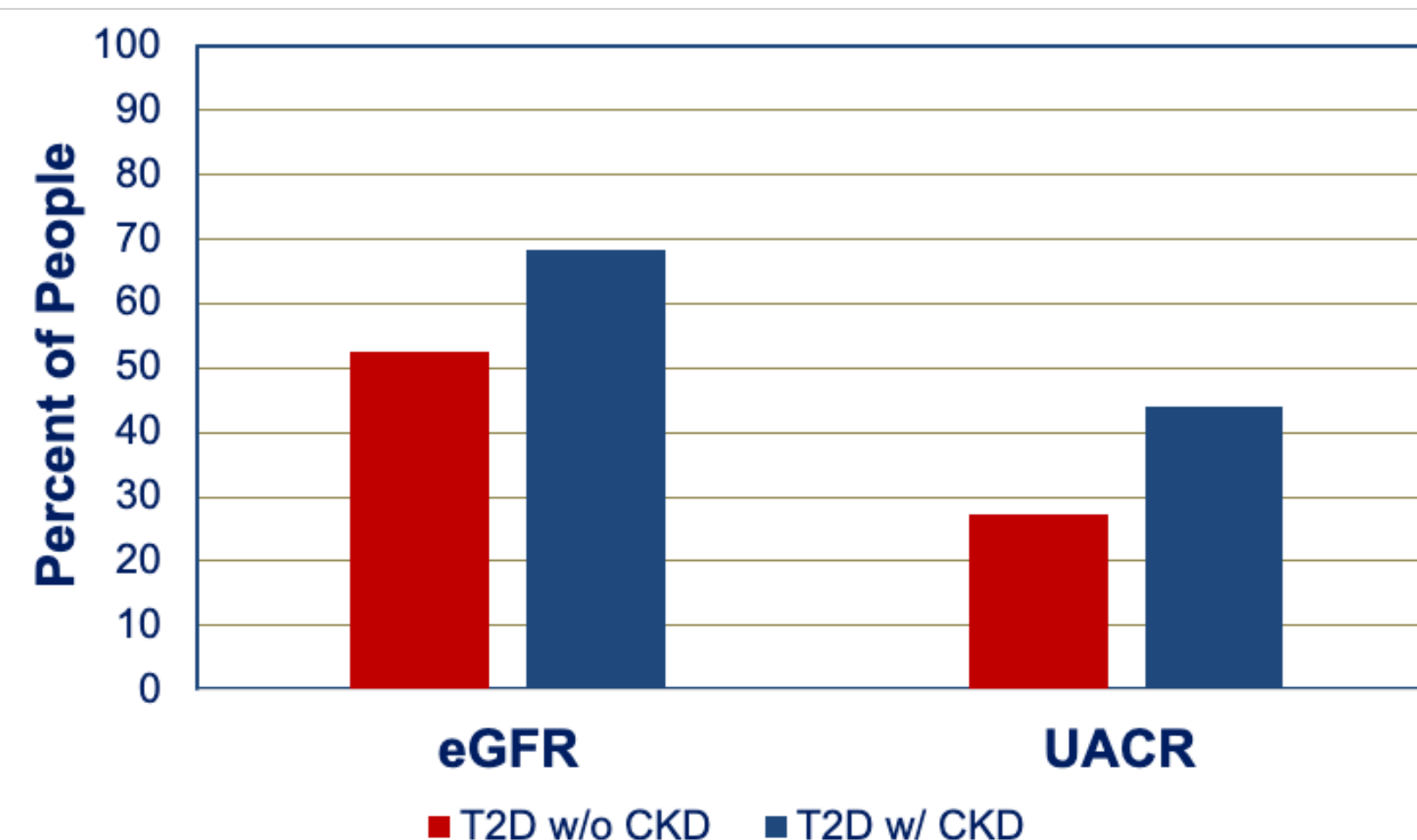


Figure 1. Distribution of primary payer class among people with T2D

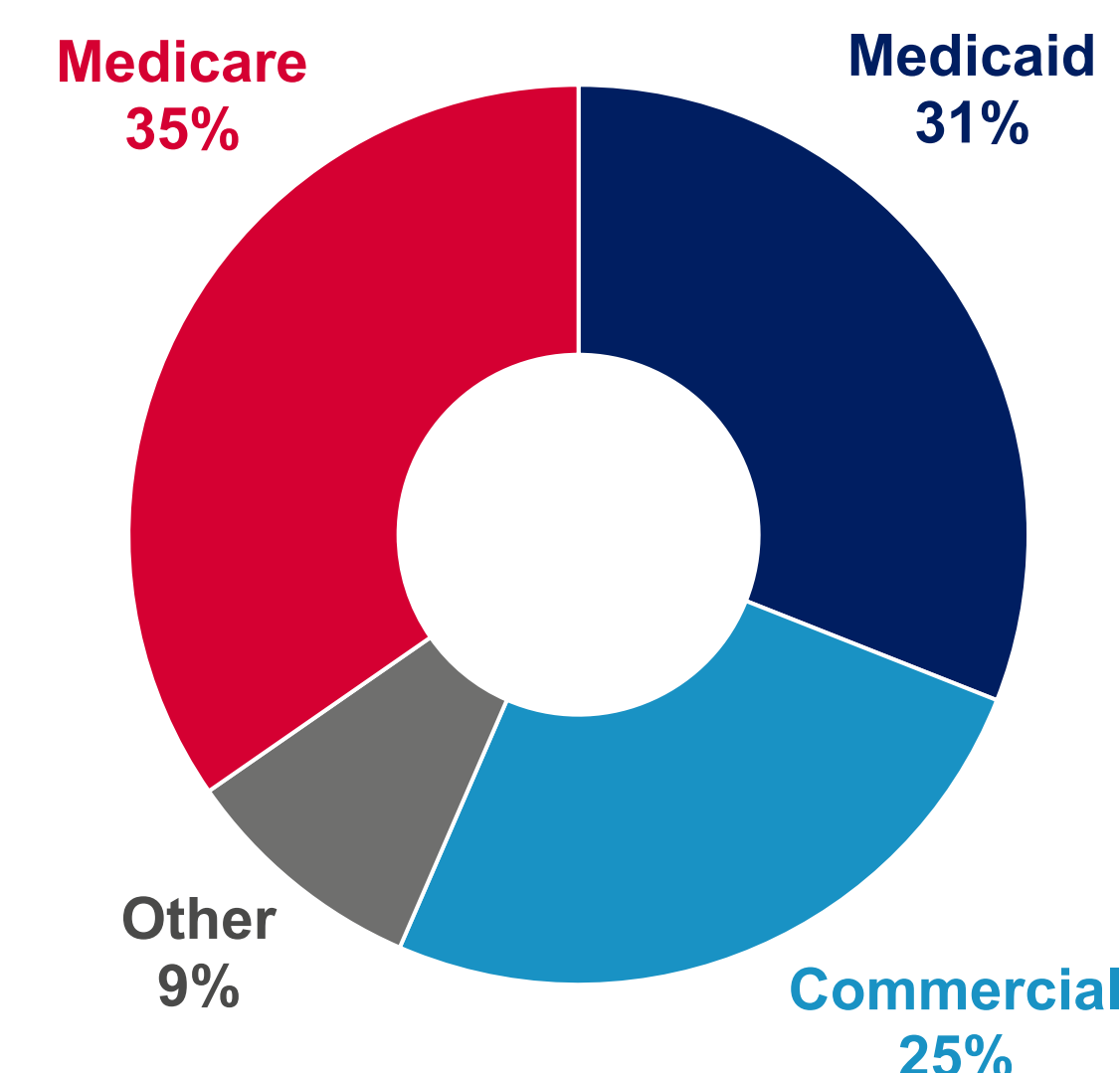
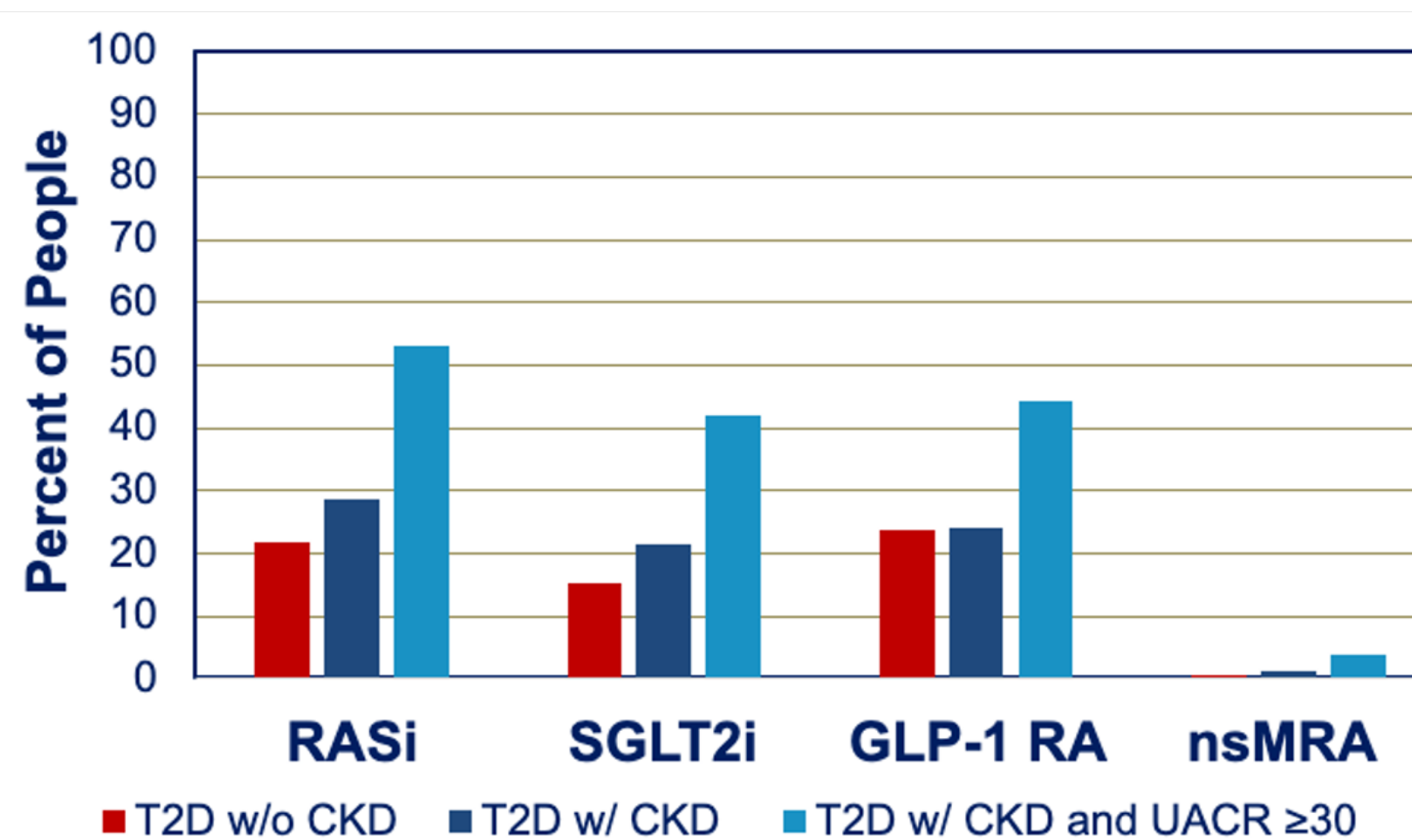


Figure 3. Rate of GDMT prescribing among people with T2D with and without CKD



Results Continued

Figure 4. Rate of GDMT combination therapy prescribing among people with T2D with and without CKD

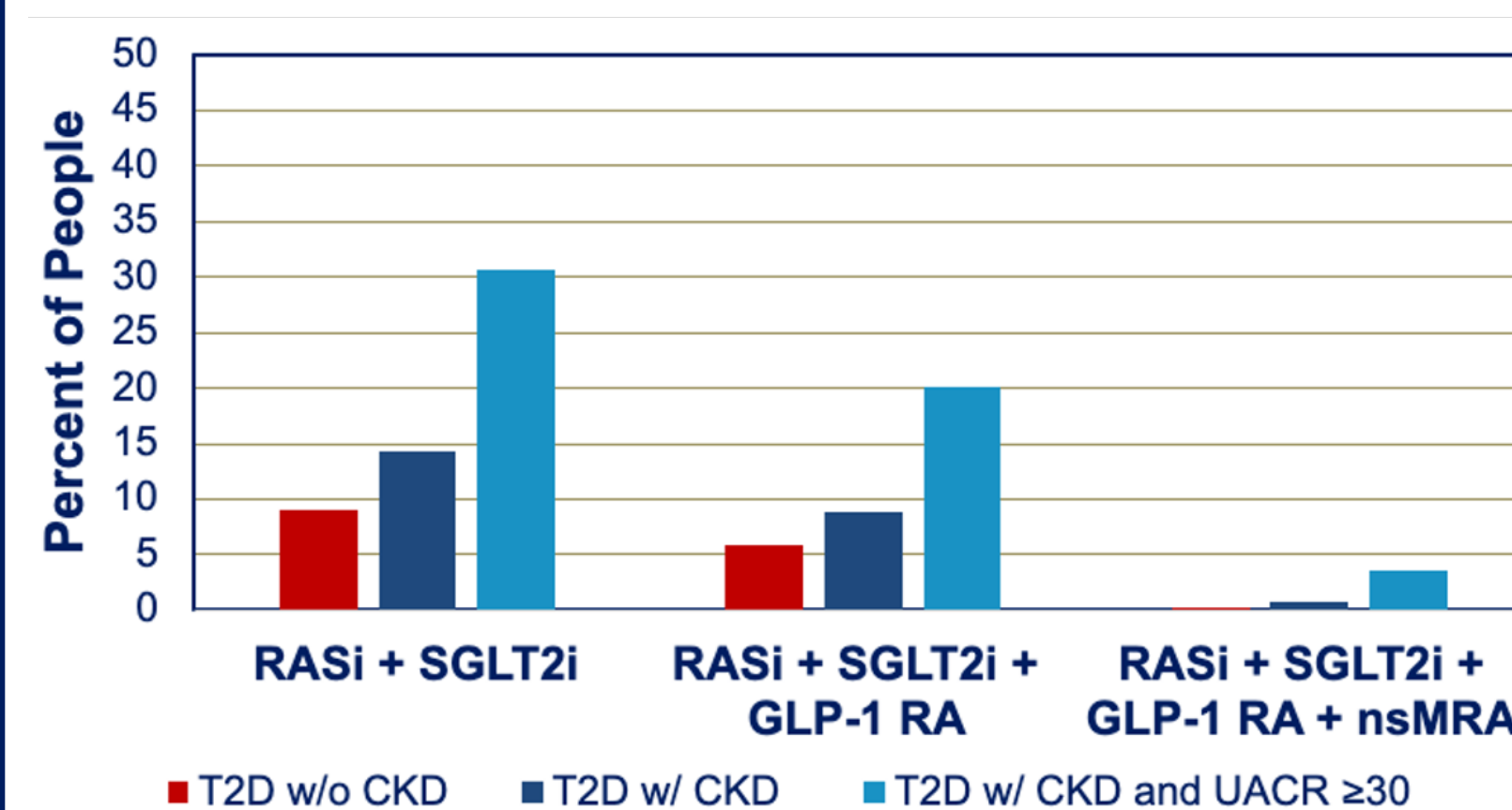


Table 2. First-time GDMT prescribing by ordering user type in T2D with CKD (%)

	RASi	SGLT2i	GLP-1 RA	nsMRA
Physician	75.0	61.0	55.6	79.1
Nurse Practitioner	16.9	30.8	30.7	11.8
Pharmacist	5.6	6.6	12.1	9.1
Other	2.4	1.6	1.6	0.0

Discussion

- Rates of eGFR and UACR assessment remain sub-optimal despite guideline recommendations in people with T2D.
- Lower rates of UACR assessment compared with eGFR represent a missed opportunity to identify risk and implement GDMT to mitigate adverse clinical outcomes in people with T2D.
- GDMT prescription rates were highest amongst people with T2D and CKD with UACR ≥ 30 mg/g.
- Future studies are needed to evaluate system-, provider-, and patient-level factors contributing to observed gaps in care.

References

- American Diabetes Association Professional Practice Committee for Diabetes*. 11. Chronic Kidney Disease and Risk Management: Standards of Care in Diabetes-2026. *Diabetes Care*. 2026;49:S246-S260.
- Alfego D, Ennis J, Gillespie B, et al. Chronic Kidney Disease Testing Among At-Risk Adults in the U.S. Remains Low: Real-World Evidence From a National Laboratory Database. *Diabetes Care*. 2021;44(9):2025-2032.
- Nicholas SB, Daratha KB, Alicic RZ, et al. Prescription of guideline-directed medical therapies in patients with diabetes and chronic kidney disease from the CURE-CKD Registry, 2019-2020. *Diabetes Obes Metab*. 2023;25(10):2970-2979.