

Increasing Albuminuria in Patients With T2D Burdens Both the Patient and the Healthcare System

Compared to patients with T2D and normal albuminuria, patients with T2D and moderately to severely increased albuminuria experience^a:



2-4%

higher rates of
ER
services

4-40x

higher risks of
receiving
dialysis

4-10%

higher rates of
inpatient
admissions

^aData were derived from Truven Health MarketScan databases from 2004-2014, with 23,235 patients selected for analysis. Patients had T2D, were at least 18 years old, and were separated into normoalbuminuria (UACR <30 mg/g), microalbuminuria (UACR 30-300 mg/g), and macroalbuminuria (UACR >300 mg/g) groups.

ABBREVIATIONS

ER, emergency room; T2D, type 2 diabetes; UACR, urine albumin-to-creatinine ratio.

REFERENCE

Zhou Z, et al. *Diabetes Ther.* 2017;8(3):555-571.

Increased UACR Levels Are Associated With Higher HF Hospitalization and Rehospitalization Rates in Patients With CKD^a



UACR (mg/g)	HF Hospitalization Rates per 100 Person-Years ^b	HF Rehospitalization Rates per 100 Person-Years ^b
<30	2.9 (95% CI, 2.3-3.5)	0.3 (95% CI, 0.2-0.4)
30 to 299	6.6 (95% CI, 5.3-8.0)	1.0 (95% CI, 0.6-1.5)
≥300	9.7 (95% CI, 8.3-11.2)	1.4 (95% CI, 0.9-1.9)

^aData from a study of 3939 individuals with mild to severe CKD enrolled in the CRIC study (148 participants were excluded due to missing UACR at the baseline study visit, resulting in a final analytical cohort of 3791 participants). ^bUnadjusted rates of HF admissions and 30-day HF rehospitalizations per 100 patient-years by level of kidney function among participants with CKD.

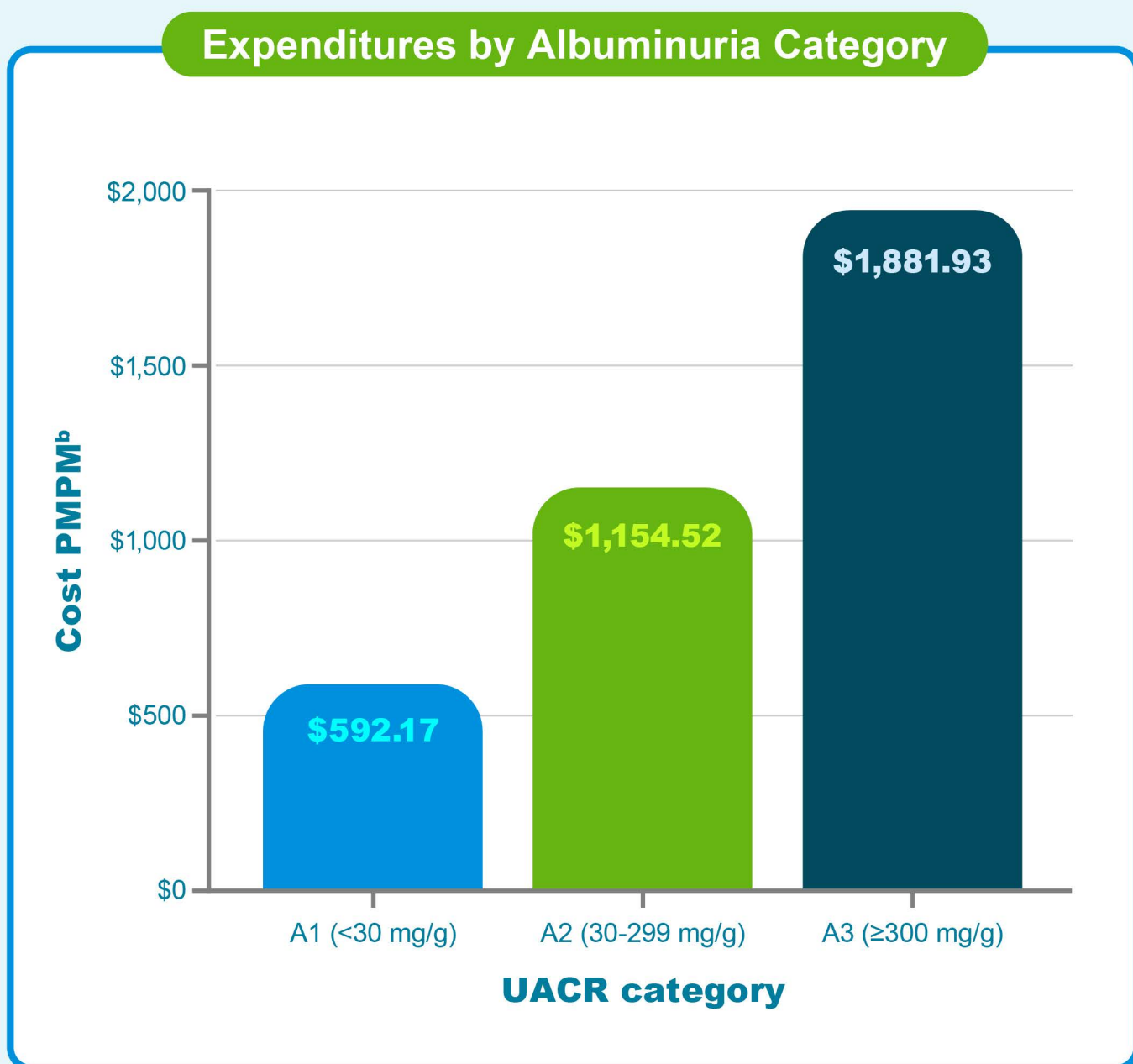
ABBREVIATIONS

CI, confidence interval; CKD, chronic kidney disease; CRIC, Chronic Renal Insufficiency Cohort; HF, heart failure; UACR, urine albumin-to-creatinine ratio.

REFERENCE

Bansal N, et al. *J Am Coll Cardiol.* 2019;73(21):2691-2700.

Increasing Albuminuria Results in Higher Healthcare Costs^a



^aData from the CareFirst and National Kidney Foundation quality improvement study, which was designed to test the impact of a CKD intervention in the primary care setting in 7420 patients at risk for CKD with diabetes and/or hypertension. ^bMedical PMPM payer expenditures (institutional and professional).

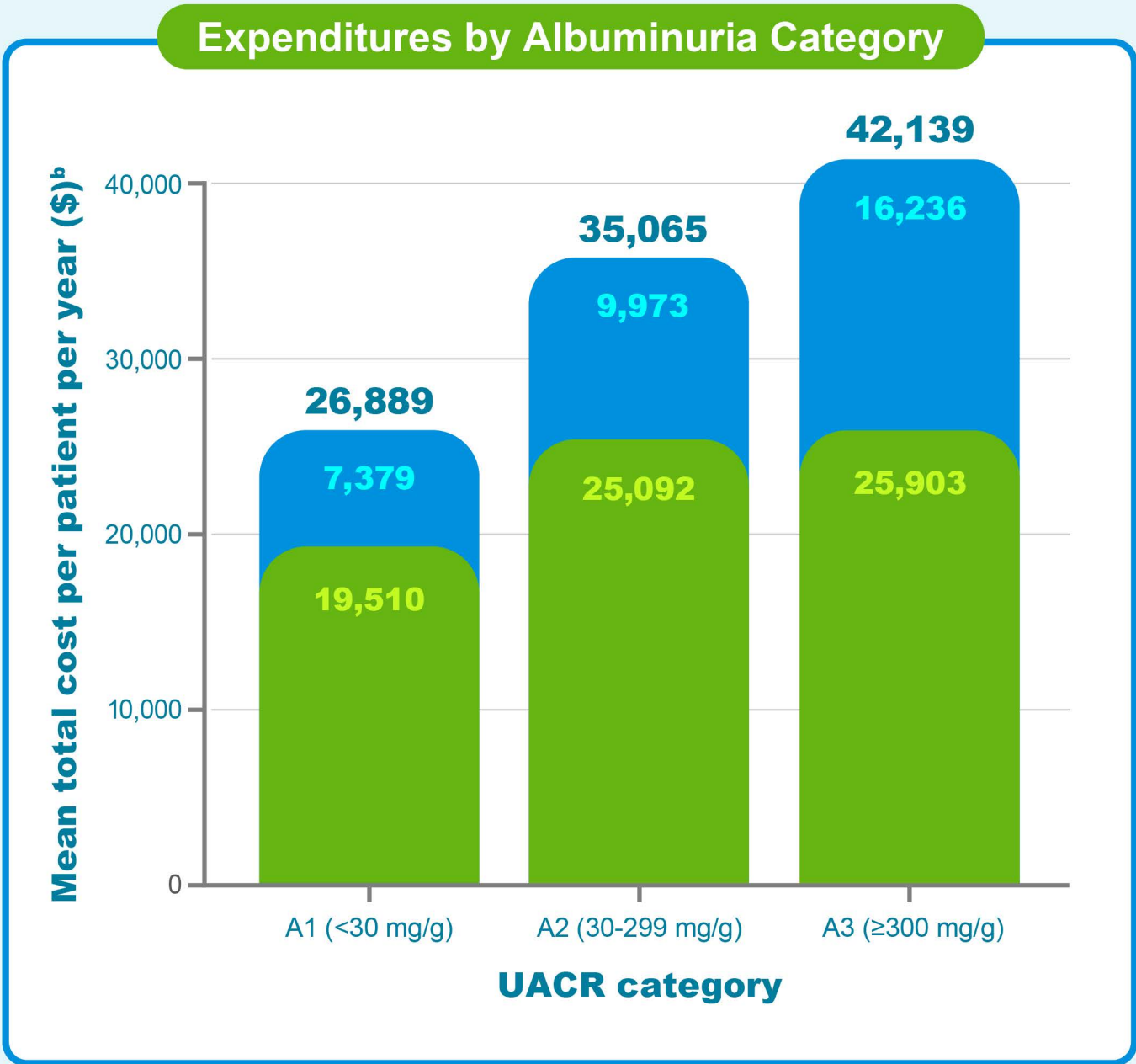
ABBREVIATIONS

CKD, chronic kidney disease; PMPM, per member per month; UACR, urine albumin-to-creatinine ratio.

REFERENCE

Vassalotti JA, et al. *Am J Manag Care*. 2019;25(11):e326-e333.

Mean Annual Per Patient Healthcare Costs Increase as UACR Increases^a



Outpatient visits Hospitalization

^aThe patients included in this analysis are a subset based on the US retrospective patient cohort derived from the DISCOVER CKD study (a multinational, observational cohort study in patients with CKD) and included 6351 and 18,327 patients meeting the eligibility criteria of this study, with data sourced from the LCED and TriNetX databases, respectively. ^bCost and HCRU estimates of CKD and reduced kidney function without CKD (eGFR 60-75 mL/min/1.73 m² and UACR <30 mg/g) were derived using linked inpatient and outpatient data from the databases. Cost analysis captured costs covered by insurance providers and employers in addition to patients' out-of-pocket costs. Data from overall LCED cohort.

ABBREVIATIONS

CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; HCRU, healthcare resource utilization; LCED, limited claims-EMR [electronic medical record] data set; UACR, urine albumin-to-creatinine ratio.

REFERENCE

Garcia Sanchez JJ, et al. *Kidney Int Rep.* 2023;8(4):785-795.