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A Population-Based Analysis of Quality Indicators in CKD

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Abstract

Background and objectives Awareness of CKD remains low in comparison with other chronic diseases, such as diabetes, leading to low use of preventive medications and appropriate testing. The objective of this study was to evaluate the quality of care provided to people with and at risk of CKD.

Design, setting, participants, & measurements We conducted a population-based analysis of all Albertans with eGFR=15–59 ml/min per 1.73 m² between April 1, 2011 and March 31, 2012 as well as patients with diabetes (as of March 31, 2012). We assessed multiple quality indicators in people with eGFR=15–59 ml/min per 1.73 m², including appropriate risk stratification with albuminuria testing and preventive medication use and screened people with diabetes using urine albumin-to-creatinine ratio and serum creatinine measurements.

Results Among 96,480 adults with eGFR=15–59 ml/min per 1.73 m², we found that 17.0% of those without diabetes were appropriately risk stratified with a measure of albuminuria compared with 64.2% of those with diabetes ($P<0.001$). Of those with eGFR=15–59 ml/min per 1.73 m² and moderate or severe albuminuria, 63.2% of those without diabetes received an angiotensin-converting enzyme inhibitor or an angiotensin receptor blocker compared with 82.1% in those with diabetes ($P<0.001$). Statin use was also significantly lower in patients with eGFR=15–59 ml/min per 1.73 m² without diabetes (39.2%) compared with those with diabetes (64.6%; $P<0.001$). Among 235,649 adults with diabetes, only 41.8% received a urine albumin-to-creatinine ratio and 73.2% received a serum creatinine measurement over 1 year.

Conclusions We identified large gaps in care, especially in those with CKD but no diabetes. The largest gap was in the prescription of guideline-concordant medication in those with CKD as well as appropriate screening for albuminuria in those with diabetes. Our work illustrates the importance of measuring health system performance as the first step in a quality improvement process to improve care and outcomes in CKD.

Renal Insufficiency, Chronic Quality Indicators, Health Care

Hydroxymethylglutaryl-CoA Reductase Inhibitors

Angiotensin-Converting Enzyme Inhibitors

Angiotensin Receptor Antagonists

Health Care Quality, Access, and Evaluation Adult Albumins

albuminuria Angiotensin Receptor Antagonists Chronic Disease

creatinine diabetes mellitus Humans Kidney Function Tests

Quality Improvement

Received August 16, 2016.

Accepted January 25, 2017.

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Published online before
print April 2017, doi:
10.2215/CJN.08720816
CJASN May 08, 2017 vol.
12 no. 5 727–733

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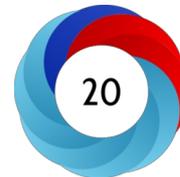
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Online ISSN: 1555-905X



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