

Your membership matters.

Continue to help lead the fight against kidney disease. Renew today.

www.asn-online.org/membership



CJASN

Clinical Journal of the
American Society of Nephrology
[HOME](#) | [CURRENT ISSUE](#) | [ADVERTISE](#) | [SUBSCRIBE](#) | [ARCHIVES](#) | [FEEDBACK](#) | [ALERTS](#) | [HELP](#)

User Name

Password

LOG-IN

Search



Advanced Search

A Population-Based Analysis of Quality Indicators in CKD

Liam Manns*, Nairne Scott-Douglas*,^{†,‡,§,||}, Marcello Tonelli*,^{†,‡,§,¶},
Robert Weaver*,[†], Helen Tam-Tham*,[¶], Christy Chong*,
Brenda Hemmelgarn*,^{†,‡,§,¶}

Author Affiliations

Correspondence:

Dr. Brenda Hemmelgarn, Cumming School of Medicine, University of Calgary,
Teaching Research Wellness Building, 3rd Floor, 3280 Hospital Drive NW, Calgary,
AB, Canada T2N 4Z6. Email: Brenda.Hemmelgarn@ahs.ca

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.

Copyright © 2017 by the American Society of Nephrology

« Previous | Next Article »
Table of Contents

This Article

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

» Abstract Free

Figures Only

Full Text

Full Text (PDF)

Article Usage Stats

Article Usage Statistics



Services

Email this article to a
colleague

Alert me when this article is
cited

Alert me if a correction is
posted

Similar articles in this journal

Similar articles in PubMed

Download to citation manager

Get Permissions

Citing Articles

Google Scholar

PubMed

Current Issue

March 07, 2018, 13 (3)



Alert me to new issues of
CJASN

ONLINE SUBMISSION

AUTHOR RESOURCES

ABOUT CJASN

EDITORIAL BOARD

REPRINTS/PERMISSIONS

IMPACT FACTOR

MOST READ

MOST CITED

CJASN ePress

Updated on:
March 9, 2018
By Date / By Subject



Advertising Disclaimer

We recommend

A Population-Based Analysis of Quality Indicators in CKD

Copyright © 2018 by the American Society of Nephrology

Be a part of something
innovative,
influential

Print ISSN: 1555-9041

Online ISSN: 1555-905X



ASN members enjoy discounts on ASN's educational programs, subscriptions to ASN's publications, and more.

Join or renew today at
www.asn-online.org/membership

