



## Cost Containment and Chronic Kidney Disease

### Are Your Patients at Increased Risk for Cardiovascular Events and Progression to Kidney Failure?

Chronic kidney disease (CKD) is a leading cause of concern among older adults. Fifteen percent of US adults or 37 million people are estimated to have CKD.<sup>1</sup> In primary care populations, almost 90 percent of adults with type 2 diabetes and CKD are not currently diagnosed, and as many as 50 percent of patients with advanced CKD remain undiagnosed. This condition puts them at an increased risk for cardiovascular events and progression to kidney failure and death.<sup>2</sup>

The U.S. Renal Data System identifies Medicare spending for beneficiaries ages  $\geq 66$  years with CKD (excluding end-stage renal disease [ESRD]) exceeded \$70 billion in 2018.<sup>3</sup> This amount represents 23.8 percent of all spending for this age group. The system report also confirmed that CKD-related expenditures for this age group have risen at a higher rate over the past 20 years than expenditures for the general Medicare population or for beneficiaries with diabetes mellitus (DM) or heart failure (HF). The rapid rise in costs for the CKD population reflects, in part, a more rapid growth in the CKD population. Specifically, the number of beneficiaries with CKD increased by 89 percent over the last decade.

Delayed diagnosis of CKD leads to an increase in case utilization, hospitalization, and mortality.<sup>4</sup> Per data collected between 2015 to 2018, the prevalence of CKD remained the highest at Stage 3.<sup>5</sup> Among fee-for-service Medicare beneficiaries ages 66 or older with stage 3 CKD in 2013, 32.2 percent remained in stage 3 and 43.8 percent died before ever reaching ESRD within 5 years; only 3.0 percent progressed to ESRD.<sup>6</sup> The graph in Figure 1 demonstrates the CKD prevalence, diagnosis rates, and cost for the different stages of CKD.<sup>7</sup>

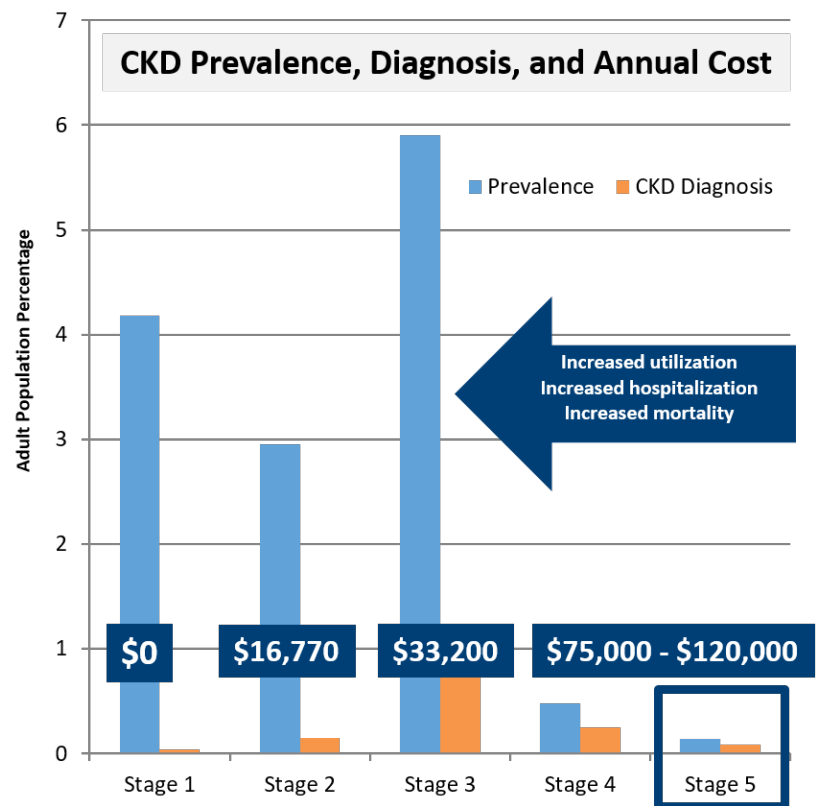


Figure 1

**Prevalence:**

United States Renal Data System. 2015 USRDS annual data report: Epidemiology of Kidney Disease in the United States. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2015.

**Cost per stage:**

Ladan Golestaneh, et al, All-cause costs increase exponentially with increased chronic kidney disease stage. American Journal of Managed Care, 2017. 23(10): p. S161.

**CKD Diagnosis:**

Szczech, L.A., et al., Primary care detection of chronic kidney disease in adults with type-2 diabetes: the ADD-CKD Study (awareness, detection and drug therapy in type 2 diabetes and chronic kidney disease). PloS one, 2014. 9(11): p. e110535.

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## HSAG Best Practice: Screen Patients for Both eGFR and ACR

While CKD is asymptomatic in its early stages<sup>8</sup>, early detection and management is key in reducing costs related to kidney disease management. Two major clinical barriers to CKD care have been identified as lack of clinical testing for CKD at early stages and the gap in clinical knowledge about CKD.<sup>9</sup> Blood and urine tests are the only clinical methods to be followed to identify patients with CKD. The two tests to assess for CKD are estimated glomerular filtration rate (eGFR) and urine albumin-creatinine ratio (ACR). Currently, 94 percent of patients with hypertension and 61 percent with diabetes are not receiving both tests necessary to detect and assess CKD.<sup>10</sup>

## HSAG Best Practice: Identify Patients With Comorbidities, Such as Diabetes and Hypertension, and Screen Them for CKD Every 6 Months

Diabetes is the leading cause of kidney failure, accounting for 44 percent of new cases.<sup>11</sup> In 2013, diabetes led to more than 51,000 new cases of kidney failure and more than 247,000 people are currently living with kidney failure resulting from diabetes.<sup>12</sup> In patients with type 2 diabetes, screening should begin at initial diagnosis because the exact onset of diabetes is often unknown.<sup>13</sup> Based on data extracted by Sonora Quest Labs in Arizona, out of 604,328 people with laboratory evidence of diabetes, 79 percent were overdue for albuminuria testing.<sup>14</sup>

## HSAG Best Practice: Ensure Accurate Coding for Various Stages of CKD

Provider documentation must explicitly state the stage of CKD to ensure accurate code assignment. Coders cannot abstract the stage of CKD based on documented eGFR. Although kidney function can improve or worsen over time, providers should avoid documenting multiple stages of CKD in the same encounter. The stage of CKD documented should reflect the patient's kidney function at the time of that encounter.<sup>15</sup> In Medicare fee-for-service beneficiaries ages 66 years or older, CKD diagnosed from codes used in billing claims increased from 1.8 percent in 1999 to 13.5 percent in 2018. From 2006 to 2018, stage 3 CKD increased by 485 percent, stage 2 CKD by 306 percent, and stage 4 CKD by 98 percent.<sup>16</sup>

### References

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3. United States Renal Data System. 2020 Annual Data Report. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. <https://adr.usrds.org/2020>.
4. Montgomery E. National Kidney Foundation Improving Chronic Kidney Disease Outcomes in People Living with Diabetes. October 2020. PowerPoint Presentation.
5. *ibid.*, see footnote #3.
6. *ibid.*, see footnote #3.
7. *ibid.*, see footnote #4.
8. *ibid.*, see footnote #1.
9. Sperati CJ, Soman S, Agrawal V, Liu Y, Abdel-Kader K, Diamantidis CJ, et al. Primary care physicians' perceptions of barriers and facilitators to management of chronic kidney disease: A mixed methods study. 2019. Available at PLoS ONE 14(8): e0221325. <https://doi.org/10.1371/journal.pone.0221325>.



10. American Society for Clinical Pathology. Chronic Kidney Disease Assessment and Diagnosis. Available at <https://www.ascp.org/content/get-involved/institute-of-science-technology-policy/ckd-assessment-and-diagnosis>.
11. National Kidney Foundation. Diabetes and Chronic Kidney Disease. Available at <https://www.kidney.org/news/newsroom/factsheets/Diabetes-And-CKD>
12. *ibid.*, see footnote #11.
13. American Diabetes Association (ADA). Microvascular complications and foot care. Sec. 9. In standards of medical care in diabetes—2015. *Diabetes Care*. 2015; 38:S58–66.
14. *ibid.*, see footnote #4.
15. *ibid.*, see footnote #9.
16. *ibid.*, see footnote #3.

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