Practice Guidelines for the Management of End Stage Renal Disease

MVP Health Care®, as part of its continuing Quality Improvement Program, adopted guidelines for End Stage Renal Disease (ESRD) based on the National Kidney Foundation's Kidney Disease Outcome Quality Initiative (NKF KDOQI™).

Statistics – Morbidity & Mortality

Key observations from the United States Renal Data System's (USRDS) Annual Report 2024:

Incidence and prevalence of ESRD

The adjusted incidence of ESRD continued its decline in 2022 such that over the last decade, there was an18.6% decrease. The decline in adjusted ESRD incidence was seen across all modalities and groups defined by age, sex, and race and ethnicity.

In contrast to ESRD incidence, the prevalence of ESRD rose steadily from 2002-2019. An unprecedented decline occurred in 2020 and continued in 2021 and 2022. The declining prevalence of ESRD beginning in 2020 was driven mainly by a reduction in the prevalence of ESRD treated with in-center hemodialysis (HD); the prevalence of ESRD treated with home dialysis or a kidney transplant continues to increase. The pattern of steady increase in prevalence up to 2019 followed by decline was seen for all races except Native Americans, who experienced a decline in ESRD prevalence throughout the last decade, albeit with a slight acceleration after 2019.

Reductions in ESRD prevalence from 2020 to 2022 are likely related to reductions in ESRD incidence as well as to higher mortality among prevalent patients with ESRD. The reduction in ESRD incidence may also be related to higher mortality, in this case among patients with stages 4 and 5 CKD. Mortality among Medicare and Medicaid beneficiaries with advanced CKD had not returned to 2019 levels by 2022 (or 2021 in the case of MA beneficiaries). Nevertheless, for most groups, mortality decreased slightly in 2022, providing some hope that the effects of the COVID-19 pandemic on the CKD and ESRD population were beginning to wane.

Mortality among patients with ESRD

Adjusted mortality among ESRD patients declined steadily from 2012 to 2019. Unfortunately, however, the onset of the COVID-19 pandemic in 2020 corresponded with an abrupt increase in mortality that persisted in 2021. It is therefore particularly encouraging that mortality decreased in 2022 overall, for patients treated with all modalities of kidney replacement therapy, and for members of all groups defined by age, sex, and race and ethnicity.

COVID-19

We continue to examine COVID-19 hospitalization and mortality and to consider how the ongoing pandemic affected ESRD incidence, prevalence, and mortality in 2022. We also present information about evolving treatments and effects of COVID-19 itself, including vaccination, antiviral treatment in the outpatient setting (i.e., with nirmatrelvir/ritonavir or molnupirovir), and incidence of long COVID. In keeping with the transition of COVID-19 to an endemic disorder, we have eliminated a dedicated COVID-19 chapter and instead now present COVID-19-related material within the relevant chapters (e.g., Morbidity and Mortality, Prescription Drug Coverage).

Examining COVID-19 events directly provides some evidence of improvement in 2022 for most groups but also raises some concerns. The rate of hospitalization with COVID-19 decreased in 2022 among Medicare FFS beneficiaries with CKD and remained stable among those receiving dialysis, but it increased among kidney transplant recipients. Mortality in the 90 days after COVID-19 diagnosis decreased among beneficiaries with CKD, on dialysis, and with a kidney transplant; mortality attributable to COVID-19 decreased among beneficiaries receiving dialysis. Nevertheless, these events still occurred much more frequently among beneficiaries with CKD and ESRD than among those without. Patients with kidney disease were also much more likely to be diagnosed with long COVID in 2022 than those without.
Areas of particular focus and new content in 2024

Healthcare disparities

The USRDS focus on disparities in treatment and outcomes related to race and ethnicity continues in the 2024 ADR. The report incorporates new data from the 2020 U.S. Census to examine the effects of demographic changes – particularly the dramatic increase in multiracial individuals – on estimates of incidence and prevalence of ESRD across groups defined by race. In addition, we expand the focus on healthcare disparities to consider inequities related to insurance status, particularly among Medicare beneficiaries and especially those with dual eligibility for Medicare and Medicaid, an individual-level indicator of poverty that complements ZIP code-level indicators of income and other measures that have been emphasized in prior reports. We also examine long-term exposure to key components of air pollution, specifically fine particulate matter (<2.5 micrometers in aerodynamic diameter, or PM). We examine associations of 10-year average $PM_{2.5}$ concentration with neighborhood characteristics, the proportion of the population that is Black or Hispanic, and the incidence of ESRD, all at the county level.

Source:

United States Renal Data System. 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, 2024. Available: Annual Data Report | USRDS

Guideline Summary

08/2025
2006, 2008, 2010, 2014, 2016, 2018, 2020, 2021, 2022, 2023, 2024

In 1997, the National Kidney Foundation began the Kidney Disease Outcome Quality Initiative (KDOQI) with a goal to create clinical management guidelines for health care professional for all stages of chronic kidney disease and related complications, from diagnosis to monitoring and management. The National Kidney Foundation has published numerous Clinical Practice Guidelines through its KDOQI process. Topics covered include:

- Acute Kidney Injury (AKI)
- Anemia
- Bone Metabolism in CKD
- Cardiovascular Disease in CKD
- Classifying Chronic Kidney Disease
- Diabetes mellitus
- Glomerulonephritis
- Hemodialysis Adequacy
- Hepatitis C
- Nutrition in CKD
- Peritoneal Dialysis Adequacy
- Transplant
- Vascular Access

For all KDOQI Guidelines for Chronic Kidney Disease (CKD) Care and KDOQI Guidelines for Dialysis Care please go to the National Kidney Foundation website at:
American Journal of Kidney Diseases.
In conjunction with these guidelines, MVP Health Care offers Case Management for members with End Stage Renal Disease who are preparing for or receiving dialysis. If you would like to refer one of your patients to the Case Management program, please call the Population Health Management Department at 866-942-7966.

This guideline is not intended to replace the role of clinical judgment by the physician in the management of this, or any other disease entity. This is an educational guideline to assist in the delivery of good medical care. All treatment decisions are ultimately up to the patient and provider. Where medication recommendations are made, please refer to each health plan's formulary for coverage considerations.

MVP Health Care updates its clinical guidelines at least every two years. The review process is also initiated when new scientific evidence or national standards are published. Practitioners are alerted via the web site and by written notices from the plan via fax or newsletter. A hard copy of the clinical guideline can be requested by calling the MVP Quality Improvement Department at **800-777-4793.**