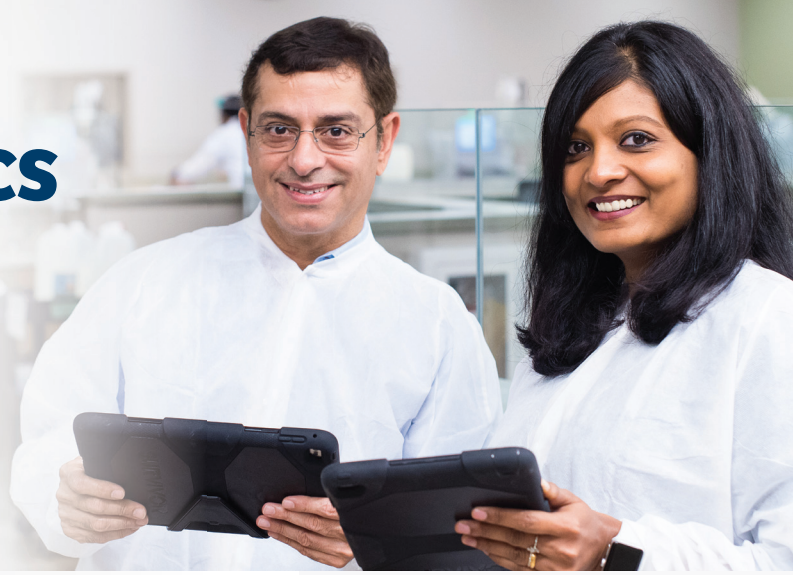
Predictive Analytics Can Help Drive Better Outcomes and Lower Costs



People with chronic kidney disease (CKD) are typically unaware they have kidney disease. Patients who progress to kidney failure in end stage kidney disease (ESKD) become some of the most medically complex and costly patients: The typical patient with ESKD spends approximately 11 days in the hospital per year[1] and can incur $18,865 in costs per hospital admission.[2]

DaVita's proprietary analytics are helping providers manage patients' kidney disease, from early identification through ESKD treatment optimization. By combining predictive analytics insights with the care team's clinical judgment, DaVita has helped improve outcomes and reduce costs in value-based care programs.

MODELS ACROSS THE KIDNEY CARE CONTINUUM

Predictive models can help kidney care providers identify high-risk patients and target their care, optimize treatment and improve outcomes at various stages of kidney disease.

PHASE 1
Promote CKD Awareness & Management

CKD Identification Model
Identifies patients with undiagnosed CKD with **72% accuracy**[3]

PHASE 2
Smooth CKD-to-ESKD Transition

ESKD Transition Risk Model
Identifies **75% of patients** at risk of transitioning to kidney failure in 6–18 months[4]

PHASE 3
Optimize Treatment for ESKD

Hospitalization Risk Model
Stratifies risk for hemodialysis patients to help care teams reduce hospitalizations by up to **75 admits per 1,000 ESKD patients each year**[5]

Additional operational models include algorithms that help kidney care teams identify risk of high cost, high acuity patients as well as patients at risk of home therapy loss.

Proprietary Models

More than 30 DaVita data scientists develop proven and operational predictive models that leverage:

- A database of 1B+ CKD and ESKD patient data points
- Kidney disease-specific technology to power analytics into clinical workflows
- Established relationships and integration with health IT market leaders, Epic and Cerner, and academic clinicians
- Extensive experience developing and deploying predictive analytics to seamlessly integrate into care management workflows

DaVita®

THE RIGHT CARE AT THE RIGHT TIME

DaVita's holistic, patient-centered care models and predictive algorithms help care teams deliver the right interventions for patients—education on disease management, treatment modalities and dialysis access planning—at the right time to help drive better outcomes and reduced costs.

By proactively identifying patients at risk of transition to kidney failure, care teams are better able to deliver informed interventions and drive positive outcomes:

Smoothing Transition

93%
of CKD patients aligned with a nephrologist by the time they transition to ESKD (vs. 36% baseline)[6]

74%
of patients transitioned to ESKD with a maturing or ready-to-use dialysis access placed (vs. 27% baseline)[7]

Optimizing ESKD Treatment

72%
patients starting dialysis in outpatient setting (vs. 40% baseline)[8]

38%
lower admits for CKD patients in their first 6 months of dialysis[9]

A CRITICAL TOOL IN VALUE-BASED CARE

DaVita continues to help lead the evolution to value-based kidney care by leveraging robust datasets to inform personalized treatment and improve outcomes.

To learn more about predictive analytics and how we work with health plans, email partnerships@davita.com.

1. United States Renal Data System. 2018 USRDS Annual Data Report; National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2018.
2. CMS 5% Sample Data, 2018
3. 2020 DaVita Internal Analysis; using claims data
4. 2019 DaVita Integrated Kidney Care (IKC) Internal Analysis
5. 2019 DaVita Integrated Kidney Care (IKC) Internal Analysis
6. Predictive model helped care teams tailor care that resulted in a 5–6% reduction in hospitalizations for patients with high or medium risk of hospitalization; 2019 DaVita IKC Internal Analysis.
7. Transitions claims data 2016-2018
8. Transition claims data 2016–2018 and CMS 5% sample from 2014–2016.
9. Managed patients experienced 1.3 hospitalizations vs. the 2.1 baseline; DaVita IKC internal data compared to USRDS baselines or internal baselines where appropriate.