

CKD Insights



Nephrology Care Alliance's (NCA) predictive analytics models provide nephrology practices with the opportunity to transform the way kidney care is managed. With CKD Insights, physicians can leverage the following:

- **Experience:** Extensive experience in developing and deploying predictive analytics models for CKD and ESKD at DaVita
- **Data:** A database including millions of CKD and ESKD patient records as a foundation for building analytics
- **IT Capability:** Kidney disease-specific technology solutions to deploy analytics in clinical workflow
- **Collaboration:** Established relationships with health IT market leaders, such as Epic and Cerner, and academic clinicians

Current CKD Predictive Models

Model	Description
DaVita Clinical Research CKD progression	Likelihood of transition to ESKD in 6–18 months. The model was developed using over four years of data from more than 12,000 dialysis patients with stage 3–5 CKD. More than 600 distinct variables were considered and over 50 models were built using different techniques. The final model was selected based on the statistical properties, predictive performance in naïve data samples and the implementation barriers for each. Requires claims data.
Kidney failure risk equation	Likelihood of progression to ESKD in 2 and 5 years. Kidney Failure Risk Equation has been validated in more than 30 countries and is considered one of the most effective and efficient ways of determining patients' risk of kidney failure. The model uses demographic, clinical and laboratory data to help physicians predict the risk of kidney failure. ¹
CKD eGFR model	Likelihood of eGFR drop of 15 in next 12 months.

Coming Soon

Model	Description
CKD progression model	New model in development with Dr. Nav Tangri to provide a CKD transition risk score for a greater number of people in the kidney patient population by looking at additional factors.

1. <https://kidneyfailure.risk.com>

Deployment

With more than 7,000 physicians on DaVita applications, NCA has the capabilities to help physicians and their practices implement the tools available.

Application	Location	Description
CKD EHR by Epic	Office	CKD-specific integrated EHR and population health solution, built in collaboration with Epic.
EHR Apps (Coming Soon)	Office	Applications built on top of EHRs, available through EHR App Stores, initially focused on Epic, Athena, eCW and AllScripts.
Portal	Office	Standalone web-based application to support NCA capabilities and contracts, including Clinical Incentive Programs and Kidney Disease Education.
OneView™	Dialysis Center	ESKD-specific EHR, for use in DaVita dialysis centers.
OneView™ Mobile	All	Mobile-based physician application, for viewing DaVita patient summaries, Medical Director attestations and Order Review.

Getting Started

CKD Insights will seek to collaborate with physicians to help put the analytics to work for their patients at scale. To achieve value from the outputs from these models, physicians will work with NCA to ensure data accessibility and a user-friendly workflow. NCA will assess both of these and establish standards to ensure the use of the predictive models in a meaningful way.

Data Accessibility

The following patient data from your EHR is collected to support CKD Insights:

- Demographics (age, sex, ethnicity)
- Vitals (height, weight)
- Clinical Information (medications, clinical data of diagnoses and problems, allergies and lab results)
 - All data must be discrete and associated with common coding tools (RxNorm, ICD10, LOINC)
- Encounter timing (clinical visit dates)

NCA has the ability to access the data in different ways. Your specific solutions will depend upon the EHR used by your practice and how your practice's data is formatted and coded.

Practice Workflow Design

We have found that changes in practice workflows can help maximize the benefits of CKD Insights. In some cases, this may require growing or changing roles within the practice. Certain workflow actions can contribute to greater success:

- Define what you are trying to accomplish, such as identifying high-risk patients for focused follow-up and improving home modality adoption and optimal starts.
- Know what data should be monitored and their sources.
- Prepare and help your practice staff, including physicians, to determine how their roles fit with the use of analytics tools.
- Manage the new process by creating dashboards and setting reasonable expectations to ensure workflows are followed.

To discuss your practice's needs, please contact the NCA team at contact@nephalliance.com.

