



## Broadly Deploying RetinaVue

*Providers would often recommend diabetic retinopathy screenings for type 1 and type 2 diabetic patients. However, without screening at the point of care, providers had little insight into whether patients were following these screening recommendations. RetinaVue Imagers (a handheld retinal camera) offered patients simple retinal screenings and were used in some Vanderbilt clinics; though experts were unsure how to extensively implement them throughout the Medical Center.*

### CHALLENGE

Champions of RetinaVue technology were unsure of how to widen its use in those VUMC clinics seeing patients with diabetes

### SOLUTION

Expand use of RetinaVue in clinics by reassessing existing vendor contracts, deploying new hardware, implementing software and interface upgrades, and offering hardware and software support

### OUTCOMES

Greater access to screenings, early identification of diabetic retinopathy, and improved patient experience

“The ability to complete this screening for the patient during the course of their primary care visit and in their medical home adds convenience for both providers and patients. We no longer have to search outside records or wonder if needed follow up has occurred. The RetinaVue integration with eStar and with VEI has created a ‘win’ for all involved.”

—Martha Shepherd, DO, MPH, FFAFP  
Medical Director, Vanderbilt Health at MNPS

HealthIT’s expertise in vendor management, contract negotiation and systems integration bolstered the expansion of RetinaVue in primary health and endocrinology clinics across VUMC. Despite its apparent simplicity, developing an integration between RetinaVue and eStar demanded more than 35 people in teams spanning from billing to clinical engineering.

Teams negotiated clinic-specific contracts for camera orders to accommodate diverse billing needs. Contracts with clinical engineering were also adjusted to offer critical hardware support for the equipment.

During production, cameras on hand were tested and configured to work with existing systems. Since retinal images are sent to a cloud-based system, teams ensured there was a method to alert ophthalmology providers of images in the cloud requiring attention.

The user interface in eStar was also adapted to incorporate discrete data. Instead of providers viewing data content in PDF format, data was integrated in eStar, which enables providers to get reports via Inbasket and easily conduct search queries.

The expansion of RetinaVue now offers patients and providers a fully integrated approach to care. Primary care and endocrinology providers are able to order an immediate retinal screening for a patient and receive a report with results and follow-up recommendations from an ophthalmologist at Vanderbilt Eye Institute.

The work of the HealthIT teams resulted in several positive outcomes:

- Improved access to retinal screenings: during a six-month period after go-live, 680 more patients were screened when compared to six months prior to go-live
- Early identification of diabetic retinopathy: on its first day of widespread use in VUMC, two patients were identified as requiring intervention
- Improved patient experience: patients are no longer expected to make and attend a separate clinic visit for a retinal screening