

CASE STUDY

West Virginia University Eye Institute Implements Ophthalmic PACS

West Virginia University Eye Institute is a nationally recognized center for vision care, research, education, and outreach. Each year WVU Eye Institute treats more than 35,000 patients from the surrounding area. Images are acquired on 9 different types of Ophthalmic devices. In 2001, the Eye Institute began scanning images and other documents into a hybrid Electronic Medical Record (EMR) system. When they went over to a new EMR in 2010, the system couldn't handle the large file size of the images, so the Eye Institute had to continue storing images in the hybrid system. It became difficult to manage these islands of information.



West Virginia University Eye Institute

CHALLENGE

- Images that were scanned into the new EMR using compression were not of diagnostic quality. Reports that were scanned in as pdf's were static documents; they were not interactive and could not be modified.
- Providers had to access patient data through 3 different systems, and the EMR only allowed you to view 1 page at a time. Physicians couldn't do the interpretation while actually viewing images, and they couldn't compare images, such as a current and a prior, side-by-side. Visual field images were still being printed to paper and later scanned into the EMR.
- WVU Eye Institute wanted all relevant patient data to be accessed from a single viewer with access to raw image data that could be manipulated and reports that could be modified. They also wanted a system that could support a split screen configuration showing current and prior images side-by-side.

SOLUTION

- INFINITT offered a system that would interface with their legacy and new devices and automatically send image data to the PACS. Using an INFINITT gateway, it converts images to DICOM and maintains the full diagnostic quality.
- The INFINITT system also offers specific tools for Ophthalmology, allows images to be viewed in comparison mode and recognizes the user upon login and applies his/her desired presets and hanging protocols.
- Upon approval and final signature, the report is pushed automatically to the EMR system and the ordering physician is notified that the exam results are available.



RESULTS

- Images are available to be viewed in real time where previously they weren't viewable in the EMR for 48 hours. Hanging protocols specific to Ophthalmology ensure the appropriate presentation state, including split screen viewing for comparing images.
- The INFINITT system maintains all of the image data so they can be viewed "live" without any loss of image quality. They no longer have a problem with oculo-plastics and fundus photography that were stored as jpegs.
- INFINITT migrated over 850,000 documents from their hybrid legacy system to make historic information readily available through the EMR system and INFINITT viewer.

"INFINITT has met every challenge we have given them."

Patrick Cockey, Administrator
West Virginia University Eye Institute

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