

Oregon Medical Group's Digital Conversion Exceeds Expectations for Performance, Productivity



Kodak

Cover photo: Marc Garant, MD, evaluates a 3-D spine image using a KODAK CARESTREAM PACS workstation.

Near right: Dawn Klinglesmith, Director of Diagnostic Imaging for Oregon Medical Group, accesses information using the KODAK CARESTREAM RIS system.

Far right: A 3-D image as displayed on a KODAK CARESTREAMS PACS workstation.

Oregon Medical Group

When Dawn Klinglesmith, BSRT (R) (CV), looks back at Oregon Medical Group's film-based imaging workflow, she does not remember it as "the good old days."

As Director of Diagnostic Imaging, Klinglesmith headed a cumbersome process that involved courier transport of film-based studies from seven clinics to a centralized, outpatient imaging center for reading. The Eugene/Springfield-based group practice includes more than 100 physicians and 13 clinics and performs 55,000 imaging procedures a year.

Klinglesmith was convinced it was time for the practice to establish an integrated digital infrastructure. "Our workflow was complicated by the high volume of studies we conduct, and the number of different locations where

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images were captured. In addition, we lost two of our four radiologists. I began to investigate how we could use digital technology to improve the efficiency of our workflow and the level of service we offer physicians," she explains.

Less than a year after converting to KODAK CARESTREAM Radiology Solutions, Oregon Medical

Group's productivity and service gains have been impressive: staff and radiologist productivity increased by 20 to 25 percent; and radiology reports are ready in as little as 30 minutes, and can be accessed from Kodak's Web server or by clicking a hyperlink on the electronic medical record (EMR) system.

Single Click Delivers Imaging Studies

"Physicians can read the radiology report on our EMR and then click on an icon to immediately view the imaging study. It couldn't be easier. Access is equally convenient since radiology reports and images are available at workstations in reading areas and every exam room, and remotely from homes or offices via the Internet," Klinglesmith reports.

The group's digital transformation began a year ago, when Klinglesmith developed a multi-disciplinary team to evaluate CR systems for digital capture, as well as RIS (radiology information system) and PACS (picture archiving and communications system) for image and information management.

"We needed a vendor that could supply CR, RIS and PACS as part of a completely integrated solution," she reports. "In addition to outstanding equipment performance, I was also looking for the software integration expertise to deliver a smooth interface between our new RIS/PACS solution and existing information systems."

In contrast to other vendors, Klinglesmith notes that Kodak's proposal included planned site-specific workflow design/analysis recommendations in addition to installation



of new digital equipment. "It quickly became apparent that Kodak's approach to re-engineering our workflow with its CARESTREAM Solutions platform transcended the scope and level of performance offered by traditional RIS/PACS/CR offerings."

The practice's Digital Imaging Committee evaluated 13 vendors prior to selecting Kodak's Health Group. Kodak's sales and project management team carefully designed a workflow automation, integration and implementation plan with staged installation of CR, RIS, and PACS during a six-month period.

The practice first installed six KODAK DIRECTVIEW CR 825 Systems, which deliver the image quality and reliable performance needed for multi-specialty medical groups with expanding imaging volumes. "KODAK CR systems provide the excellent image quality valued by our radiologists, while also offering the ease of use and productivity needed by our technologists," she reports.

In terms of the RIS, Oregon Medical Group's team wanted a scalable system that offered fully automated functionality from order entry to the distribution of results to physicians. In addition, the RIS needed to be adaptable to the practice's multi-site operations and be able to integrate with the group's 10-year-old practice management system as well as EMR and billing systems.

RIS Communicates Well with Other Information Systems

"The KODAK CARESTREAM RIS is exceptional because it follows the patient from the scheduling process through report delivery and billing and facilitates the import and export of information with other systems. It also acts as a mini-EMR system. With a single click, our staff and physicians can find out anything they need to know about a patient, from lab results or allergies to insurance information and billing status," she notes.

The staff also appreciates the flexibility of Kodak's RIS. "We outlined all the data that needed to go into and out of the RIS, and Kodak engineers tailored the platform to perform these functions. So we have adapted Kodak's RIS to meet the specific needs of our multi-specialty group practice."

On the imaging side, Oregon Medical Group's new PACS acts as a central hub for collecting, reviewing, managing, storing and distributing images and related information. The KODAK CARESTREAM PACS earns rave reviews from Klinglesmith and her team

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for its user-friendly design, time-saving tools and integrated third-party applications.

"Our staff and physicians find CARESTREAM Radiology Solutions very intuitive. This platform also delivers productivity-enhancing tools, including the ability to generate a "normal" radiology report and a final signature for each radiologist in seconds with the click of a button. This negates the need for transcription and greatly improves the reading efficiency and turnaround time of our radiologists," she notes.

PACS Delivers Integrated 3D Tools, Orthopaedic Templating

Oregon Medical Group elected to purchase optional integrated 3-D reconstruction tools and the ORTHOVIEW™ Orthopaedic Digital Imaging software. "This fully-integrated templating solution supports our new orthopaedic surgical center. The surgeons are extremely pleased with the functionality of the templates and the responsiveness of the PACS system."

The PACS platform's native, real-time 3-D capabilities include MIP, MinIP, MPR, volume rendering, tissue definition, and vessel tracking functionality. These tools deliver enhanced clinical information as well as convenience.

"We used to have a workstation located adjacent to MR and CT systems. Our technologists would prepare the imaging studies and then radiologists would walk over there if they needed to manipulate them. It was both time-consuming and inconvenient. Kodak's integrated 3D capabilities deliver better diagnostic information to radiologists, in addition to being more convenient," she says.



Donald P. Olson, MD, uses the web interface to the KODAK CARESTREAM RIS system to show a patient her images during a follow-up visit. Radiology reports are ready in as little as 30 minutes.

The feature-rich functionality of the RIS/PACS solution not only serves Oregon Medical physicians but also delivers a higher level of service to referring physicians.

"The Web-based functionality of this solution is unmatched, which is a tremendous competitive advantage. Referring physicians have told us that our solution is clearly superior to systems provided by other local healthcare providers. In addition, Kodak's CARESTREAM platform offers remote users access to the same toolset they use at our clinics, which earns praise from surgeons, specialists and other physicians who view imaging studies from their home or office."

With this ambitious conversion behind her, Klingsmith is pleased with both the process and the results. "This conversion touched every OMG physician and every member of my team. We encountered some challenges, but Kodak's team worked with us to design an efficient digital workflow that provides more detailed and timely information to our physicians, and ultimately, delivers a higher level of care to our patients."

Health Group

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