

Case Study: Fortresses with Moats



California radiologists take action to tackle the challenges of EHR-PACS interoperability and address the requirements of referring physicians.

By Linda Sowers

Key Takeaways:

- The lack of interoperability between EHR systems and PACS creates challenges, including physicians who won't refer patients to radiology practices without automatic record access.
- One California radiology practice launched a communications campaign aimed at convincing large PACS vendors to request EHR vendors provide integration with their systems.
- Other possible solutions may include the ability to share patient records, including state and local repositories, cloud initiatives, and simple integration based on standards for cross-boundary connections.

Radiologists in California are confronting a serious issue with the lack of interoperability between their referring physicians' electronic health record (EHR) systems and their own PACS. Today, not all EHR software is universally compatible with PACS or other radiology information systems, and there are no clear standards for integration. The pressure to find a solution is escalating, because clinicians are adopting EHR systems at an unprecedented pace. Beyond that, many referring physicians are requiring that radiologists' images and reports directly populate their patients' medical records.

Driving Forces Behind Integration

The reasons behind the push to acquire EHRs and integrate PACS are twofold, according to California radiologist Mark D. Alson, MD, FACR, president of Sierra Imaging Associates in Fresno, Calif. "Some of our referring doctors believe it will improve patient care, which is certainly possible," he says. "Many others mistakenly believe it is required under the Stage 2 Meaningful Use rules."

The ACR is working to educate stakeholders about the imaging results-related requirements under Stage 2 Meaningful Use. "Stage 2 includes an optional objective for referring physicians and hospitals to make 10 percent or more of their ordered imaging results accessible through certified electronic health record technology (CEHRT); however, advanced connectivity between the radiologist's IT and the ordering physician's EHR is not the only permissible way to get a link to the results, or a copy of the results, populated into the EHR," says Michael Peters, ACR director of legislative and regulatory affairs.

"Whether or not interoperability is required for meaningful use, it is required to keep our referring physicians happy so that they keep sending us patients," says Alson. For radiologists, the economic risks of not complying with these requirements are significant. "In all parts of California, referring doctors are telling us, 'If you can't provide this integration, I will not be able to refer any more patients to you.' I can't think of a faster death for a radiology practice than the inability to get referrals," he says.

Keith J. Dreyer, DO, PhD, FACR, chair of the ACR IT and Informatics Committee, agrees: "In the immediate future, we're going to see a major push for connectivity with referring physicians' systems — which isn't required for the radiologists to be compliant with meaningful use but which is required to ensure the ordering doctors' requirements are being met."

Opening Lines of Communication

One of the first steps radiologists can take to advance the cause of interoperability between EHRs and PACS is to create awareness among software providers about the demand for solutions. "In Fresno, one EHR system is dominant, and we need to connect our PACS to that one first," explains Alson. "It's an investment to build interfaces, and the EHR vendor needs to know it's a priority for its customers."

Alson explains the actions his practice took to advance that initiative. "Recently, we started a communication outreach with our referring doctors, asking them to request that their EHR vendor tie into our PACS. They need to campaign on our behalf. Our referring physicians have been willing to do this for us, but they need encouragement from us. They would never think to do this on their own. As customers, we have an important responsibility to tell our PACS and EHR vendors that we need interoperability — and that we need it now."

Some forward-thinking radiology IT vendors also recognize that it is in their best interest to adapt their technology to be certified under meaningful use. "The concept of 'certified EHR technology' can apply to software solutions beyond traditional EHRs," says Peters. "In fact, several radiology IT vendors have already achieved modular or complete certification for their products to be used by radiologist participants in the meaningful use program."

Breaking Down Barriers

One advantage of bringing technology into accord with meaningful use standards is improved patient care. "Patient care is a continuum, and people want to move

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1891 Preston White Drive
Reston, VA 20191
703-648-8900
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Media contact: pr@acr.org

Continued on next page

Case Study: Fortresses with Moats



Continued from previous page

freely across providers," Dreyer says. "Today, radiology images are stored in distinct silos, and the challenge is how to break down the walls so the images are available regardless of where the care is given."

He continues, "As these barriers come down, we'll see better care. We'll also see better access to prior images, which will make interpretations of current image studies more accurate and prevent the need for additional imaging studies. Plus, we'll see lower costs of care as a result."

Beyond creating one-to-one interfaces between every PACS and EHR system, several possible solutions are currently underway to make PACS and EHR systems interoperable and able to exchange data:

- State and Local Repositories.** To address the requirement for sharing patient information freely across the continuum of care, some state and local governments are stepping into the fray to extend health information exchanges to include images. In Maine, for example, a non-profit health information technology (HIT) organization is working with the state government to establish the nation's first statewide medical image archive. For more details about Maine's central image repository, read, "Closing the Gap" on page 16 of the April issue of the *ACR Bulletin* (<http://bit.ly/MaineOpenAccess>).
- Third-Party Cloud Initiatives.** Beyond government solutions, third-party HIT cloud solutions will also offer health-care providers the ability to connect and share images and information. This hub-and-spoke approach allows radiologists to securely submit images for distribution via the cloud and connects to various EHR systems.
- True Standards for Simple Interfaces.** Another approach to interoperability is to create a standard for front-end software that enables PACS to connect to EHRs and securely move images. According to Dreyer, the standards are just now rolling out from the IT and Informatics Committee, and vendors are eager to adopt them. "We will soon be running a few pilot projects to demonstrate to vendors and to the health-care community how straightforward it is to create these interfaces," he says.

Moving Interoperability Forward

The challenge of interoperability extends beyond California, and the ACR is working quickly to create a use case for crossboundary connections that will benefit the entire radiology community. "We've been promoting standards all along," says Dreyer. "We're creating standard ways that images will move across the boundaries between systems. Now we need a use case to define what is required for interoperability. Then we can work with the standards committees and vendors to create these solutions. We are asking for help from the radiology community to let the ACR know about their challenges and experiences with these issues."

While many radiologists are familiar with the challenges associated with interoperability, they must bring awareness of the issue to other stakeholders in the health-care system — from vendors to payers and from patient advocacy groups to the federal government. There are also opportunities to volunteer with the Office of the National Coordinator (ONC) for HIT public-private initiatives, such as the Standards and Interoperability Framework. These efforts could eventually contribute to future meaningful use regulations. Radiologists should also consider commenting on federal regulations and requests for information related to the interchange of patient information.

The efforts radiologists make to increase interoperability today may ultimately have a significant impact on improving patient care. As Alson concludes, "It's imperative to share data. It's in the best interest of the patient. It's in the best interest of our health-care system. It's in everyone's best interest not to compete over data or to build technology fortresses with moats around them. There should be bridges between data. We all have a role to play in ensuring our systems talk to each other."

For more information about Stage 2 Meaningful Use and the 2014 Edition EHR Certification Criteria, visit <http://bit.ly/MU-CEHRT>. To find out more about public comment opportunities on pertinent rulemakings, visit www.RadiologyandHealthIT.com.

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Reston, VA 20191
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