
RSNA Press Release

Patients Take Control of Their Medical Exam Records

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CHICAGO – Patients value direct, independent access to their medical exams, according to a new study presented at the annual meeting of the Radiological Society of North America (RSNA).

Fragmentation of health information among physicians, healthcare institutions or practices, and inefficient exchange of test results can decrease quality of care and contribute to high medical costs. Improving communications and giving patients more control over their care are critical goals of health IT initiatives.



Giampaolo Greco, Ph.D., M.P.H.

At A Glance

- Fragmentation of health information and inefficient exchange of test results can decrease quality of care and contribute to high medical costs.
- The RSNA Image Share network enables patients to securely store, manage and share their imaging records through the Internet using personal health record accounts.
- The network meets patient expectations regarding ease of access, timeliness and privacy.

"Easy and timely electronic access to an online unified source of radiologic exams under a patient's direct control can potentially improve healthcare quality, enhance the patient's engagement in their medical care, and reduce unnecessary imaging utilization and exposure to ionizing radiation," said Giampaolo Greco, Ph.D., M.P.H., assistant professor in the Department of Population Health Science and Policy at The Mount Sinai School of Medicine in New York City.

Dr. Greco and colleagues set out to evaluate patient and provider satisfaction with the use of RSNA Image Share, an Internet-based interoperable image exchange system that gives patients ownership of their imaging exams and control over access to their imaging records. The network enables radiology sites to make imaging exams available for patients to incorporate in personal health record (PHR) accounts they can use to securely store, manage and share their imaging records. Sites can also use the network to send patient imaging records to other participating sites to support better informed care.

As compared to other systems based on point-to-point private networks, the RSNA Image

Share system avoids the legal delays and expenses associated with virtual private networks and enables the same flexibility of access characteristic of physical media like CDs. Patients who use this system have the ability to allow any provider they wish to access their images, as they do with CDs.

"This is a standards-based solution designed to achieve full interoperability of health information technology systems. Anyone, physician or other, no matter their location or affiliation, can view the images with proper patient authorization," Dr. Greco said.

For the study, patients undergoing any radiologic exams in four academic centers were eligible to establish online PHR accounts using the RSNA Image Share network. Patients could then use their PHR accounts to maintain and share their images with selected providers, creating a detailed medical history accessible through any secure Internet connection.

Between July 2012 and August 2013, the study enrolled 2,562 patients, mean age 50.4, including a significant representation of older individuals. Older individuals have the highest healthcare utilization and often experience or perceive a significant barrier in using information technology.

"The high level of enrollment among people in this age group demonstrates their interest in tools that may facilitate the management of their complex medical records and communication with their providers," Dr. Greco said.

The median number of exams uploaded per patient was six. Study participants were provided a brief survey to assess patient and physician experience with the exchange of images, and 502 patients completed and returned their surveys. Of these, 448 patients identified the method used at the visit to share images: Internet, CDs, both Internet and CDs, or other, and 165 included a section completed by their physician.

Nearly all (96 percent) of the patients responded positively to having direct access to their medical images, and 78 percent viewed their images independently. There was no difference between Internet and CD users in satisfaction with privacy and security and timeliness of access to medical images. A greater percentage of Internet users reported being able to access their images without difficulty, compared to CD users (88.3 percent vs. 77.5 percent).

"We found almost unanimous agreement from patients on the value of having direct, independent access to their imaging exams," Dr. Greco said. "This report shows that an image-sharing solution that is patient-directed and Internet-based is feasible and not only facilitates access, but also, with respect to privacy and security, generates the same level of user satisfaction as that attained through CDs."

Co-authors on the study are Anand S. Patel, M.D., Sara Lewis, M.D., Wei Shi, M.S., Mary Torosyan, Alan J. Moskowitz, M.D., Rehana Rasul, M.S., Bradley J. Erickson, M.D., Ph.D., Atheeth Hiremath, B.S., Wyatt M. Tellis, Ph.D., Eliot Siegel, M.D., David E. Avrin, M.D., Ph.D., Ronald L. Arenson, M.D., and David S. Mendelson, M.D.

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For patient-friendly information on security of electronic medical information visit RadiologyInfo.org.

For more information on RSNA Image Share, visit RSNA Image Share.