Interoperability continues as a top priority provider challenge, despite multi-million dollar investments in electronic medical/health record systems. The Direct protocol has emerged as an affordable, interoperable and compliant framework for exchanging patient data securely among healthcare providers.

Pressure is mounting for healthcare providers to fully embrace and adopt Electronic Medical Records (EMRs), and to develop secure efficient methods of sharing associated records among multiple care providers, interoperably. A combination of regulatory mandates and reimbursement incentives created via the Health Insurance Portability and Accountability Act (HIPAA), the Health Information Technology for Economic and Clinical Health Act (HiTECH), and Patient Protection and Affordable Care Act (PPACA) have helped boost adoption of EMR technology.

However, even though a majority of hospitals and practices have successfully implemented EMR and Electronic Health Record (EHR) systems, interoperable exchange of electronic records from one provider to another (or from one EHR to another) remains a challenge. Under the new Meaningful Use Stage 2 requirements, the ability to share records with other providers is a critical aspect of both meeting emerging standards of care and ensuring reimbursement for providers.

Today, providers that use the same type of EMR/EHR system can usually transfer electronic records. With differing technology standards deployed by various EHR vendors, most providers are restricted to traditional manual methods to communicate patient records to other providers. Many organizations still rely on unsecured fax, e-mail transmission methods, courier, or the postal service to transfer documents, as this technology is common to most facilities. Providers are also challenged by the management and sharing of a variety of associated unstructured patient/physician information that may exist in text messages, Word documents, and e-mail, as well as structured forms and other electronic content.

The Office of the National Coordinator for Health Information Technology (ONCHIT) initially proposed two EHR-agnostic solutions for sharing electronic records, but neither has been as widely adopted as initially hoped. The query-based eHealth Exchange (now operated by the non-profit coalition Healtheway) provides a way for providers to search for records for a specific patient. While large hospital systems have had some success with this model, smaller hospitals, facilities and practices generally do not participate.

Alternatively, Health Information Exchanges (HIEs) have been set up on a largely regional basis. While HIEs allow providers to exchange information, they have been hampered by the lack of EHR interoperability and the requirement that providers be part of a specific HIE in order to send and receive information with each other.

Enter the Direct Project, designed to enable a low-cost dedicated framework for providers to securely send information from one system to another using standard Internet and e-mail protocols. This Direct Messaging approach presents a way to transfer records securely and in a way that doesn’t require the use of proprietary software or other burdensome processes. Healthcare documents can be scanned and converted to proper document types for exchange, and other content can simply be attached to secure e-mail messages.
Under the requirements of Meaningful Use 2 (MU2), providers must attest to the ability to securely send patient information electronically for transitions of care and use secure electronic messaging to communicate with patients. Significantly, support for Direct Messaging is required of EHR providers under MU2 for the transmission of Transitions Of Care (TOC) and for the ability to View, Download and Transmit medical records (VDT). Systems certified by the ONCHIT and the National Institute of Standards and Technology (NIST) must enable the secure sending and receipt of Direct messages. In order to attest to MU2, providers must send ten percent of referrals electronically, with Direct being the preferred method. Providers who cannot attest to MU2 and HITECH face significantly reduced reimbursement rates and lower HITECH Funding, as penalties.

**Direct Messaging: Secure Patient Health Data Transmission**

Providers are challenged to both convert patient information into a standards-based electronic format, and share those documents in a way that ensures interoperability among EMRs, HIEs, and other provider solutions.

By exchanging standards-based Direct messages, providers have a way to exchange transitions of care documents and supporting clinical information exchange using a Clinical Document Architecture (CDA) along with Continuity of Care Documents (CCD).

**Direct** is a standard for exchanging health information via a trusted network. The additional security measures employed in Direct ensure that messages can only be accessed by the intended recipient, per the requirements of HIPAA. Using existing e-mail standards, a Direct e-mail address can be issued to individuals, organizations, departments, or even medical devices and document management systems.

“This standards-based, open, and secure approach is what sets Direct apart,” says David C. Kibbe, M.D., president and CEO of DirectTrust, the non-profit organization that provides accreditation of service providers using the Direct Protocol. “Direct uses standard Internet and security protocols to encrypt, send, and decrypt messages. There is no restriction on who you can send the message to, provided they have a Direct address and are part of the DirectTrust network.”

Direct addresses can be issued by EHR vendors, state health information exchanges, regional or local HIEs, and private providers or health information service providers (HISPs) that offer Direct exchange capabilities. While Direct is based on common e-mail standards, a Direct address looks slightly different than a traditional e-mail. A Direct address for an individual, for example, would look like this: j.smith@direct.healthclinic.org.

In order to send messages via Direct, the sender would need to know the recipient’s Direct address. Those addresses can be gleaned through an EHR or HISP directory, or providers can directly contact the recipient to request their address.

Composing a message and attaching clinical documents can be completed in much the same way a traditional e-mail is created. However, while normal e-mails pass through an SMTP server, Direct messages are sent via a secure HISP. (Users must be connected to a HISP in order to send and receive messages.) Messages are encrypted, and can only be sent to and opened by trusted recipients with valid Direct addresses.

While there are other alternatives for sending transitions of care documents, most of those are either vendor-specific or require participation in a specific HIE. If the recipient is not part of those existing closed networks, Direct provides a way to send and receive documents or other content attachments from any provider whether they are part of a specific network or not, so long as the provider has an affiliation with an HISP and Direct address.

**Standards-Based Messaging Breaks Down Interoperability Barriers**

Direct messaging is becoming the clear front-runner for providers searching for a simple, cost-effective method of sharing patient data — opening the doors of interoperability to all registered care providers, whether or not they are EMR/EHR-enabled. Designed specifically for healthcare applications, Direct provides the high-level of security and encryption required under current regulations, ensuring that patient information remains confidential and that only authorized parties can view the documents.

Direct is a national standard, ensuring interoperability
among all care providers and EHR vendors that adopt the technology. It provides point-to-point information sharing, and it works regardless of the type of data or documents being transported. Direct simply ensure secure delivery between provider systems.

Direct Messaging also provides other benefits to providers, including reducing administrative costs and time associated with processing paper records.

This type of messaging increases efficiency by assuring providers that medical diagnoses and notes are communicated verbatim between providers. Comprehensive treatment plans can be more easily aligned and validated among associated provider members of the healthcare delivery team. With seamless communication among colleagues both inside and outside the provider network, physicians and hospitals can avoid duplicative testing and procedures while sharing critical information such as current medications, treatments, and allergies. In addition, there are financial incentives for providers that achieve MU2 attestation.

**Next Steps**

Direct Messaging adoption is evolving, progressively overcoming barriers. Many electronic health record vendors are still working on complying with the MU2 Direct requirements, along with the other changes and mandated under the new rules. Those delays have in turn slowed deployment among hospitals and medical practices that hope to use the Direct functionality to attest to MU2. Efforts are also still underway to develop Direct address directories, possibly a national directory so that providers can more easily locate participating recipients.

Significant progress continues in establishing Direct as a common patient information exchange process. According to DirectTrust, its members now serve over 28,000 health care organizations, have provisioned over 420,000 Direct account and addresses, and in July, 2014, exchanged nearly 500,000 Direct e-mail messages to and from providers who are attesting to Stage 2 Meaningful Use programs or preparing to attest, and the number of Direct service providers seeking accreditation is growing.

With the number of Direct-enabled EHR systems, and a growing number of Direct end points, the value of using Direct Messaging to augment existing patient information exchange solutions and to replace insecure fax processes will only continue to increase. By adopting Direct Messaging, providers will not only be able to meet new regulatory requirements and attest to MU2, but can improve quality of care and patient outcomes by more efficiently and accurately sharing care documents. Closing the continuum of care circle.

“Anyone who has to provide transitions of care or coordination of care documents, can use Direct to replace fax, e-fax, and traditional mail,” Dr. Kibbe says. “Federal agencies like the Veterans Administration and large private insurers are already beginning to use Direct for both clinical document exchange and claims attachments. It is faster and more secure, and use of Direct will continue to expand. It works, it’s secure, and it doesn’t require custom, one-off proprietary connections.”

Want more info on the Direct Information Exchange? Click here to download our whitepaper, Providers go Direct to Securely Accelerate Transitions of Care & Referrals.

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As part of its efforts to extend the adoption of electronic patient health information management solutions leading to better patient care and outcomes, Kodak Alaris is a corporate platinum member of the Health Information and Management Systems Society (HIMSS), and a member of the DirectTrust industry partnership.

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