How Real-Time Data Integration is Changing the Face of Healthcare IT

INTRODUCTION

The twin goals of the Affordable Care Act – reducing costs and improving quality – have triggered sweeping changes to the way healthcare services are delivered, tracked and measured. In today's environment, these changes would be impossible without strategic, integrated and flexible healthcare IT solutions. Healthcare IT, in turn, requires complete and accurate data to perform a broad range of functions. But acquiring, validating and updating critical data from multiple sources presents significant challenges without the tools to perform these processes efficiently.

While the transition from paper to electronic health records (EHR) and Computerized Physician Order Entry (CPOE) aims to improve efficiency and support better patient outcomes, in some ways it has been both a blessing and a curse. From EHR systems to Physicians to Pharmacists, achieving clinical operability at the structural and semantic levels without accurate data is virtually impossible.

Eligible providers in the Meaningful Use program are facing increasingly rigorous demands to demonstrate advanced use of EHR. This includes the ability to transmit prescriptions and exchange patient information with other providers electronically. However, without accurate data on other providers and an efficient way to obtain it, providers will be unable to meet meaningful use requirements.

Pharmacists, who are in a position to support clinical interoperability and meaningful use measures, are struggling with issues of their own: It's estimated that up to 51 million prescription errors occur every year. Many of these errors occur at the dispensing stage of controlled substances, when pharmacy personnel exit their internal systems to manually validate critical data, such as NPI and DEA credentials and sanction activity, through external databases. Real-time data integration can remedy these errors quickly and cost-effectively.

EHR capability by itself is only part of the answer for HITECH demands. Real-time access to accurate data that seamlessly integrates into existing CRM, expense reporting, accounting/ERP and other systems is what makes meaningful healthcare information exchanges possible.

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The impact of real-time data integration on clinical interoperability

At its core, the HITECH Act of 2009 was an acknowledgment that healthcare IT helps save lives and reduce costs. The federal initiative to take a leadership role in developing healthcare IT standards and investing in an infrastructure forever changed the way healthcare is managed and assessed.

Success in healthcare IT relies on the level of clinical interoperability; providers need effective ways to communicate with each other. The Healthcare Information and Management Systems Society (HIMSS) defines clinical interoperability as:

> *"... the ability of health information systems to work together within and across organizational boundaries in order to advance the effective delivery of healthcare for individuals and communities. There are three levels of health information technology interoperability: 1) Foundational; 2) Structural; and 3) Semantic."*

The foundational level requires the ability to transmit information from one system to another and for that information to be received. At the structural level, the data exchanged between systems can be interpreted at the data field level. And at the semantic level, data can be both structured and codified. It is at this highest level of interoperability where patient summary information can be exchanged among caregivers and other authorized parties to ensure high levels of quality, safety, efficiency and delivery of healthcare services.

Three elements are essential to structural and semantic interoperability: a robust EHR system, accurate Physician and patient data, and the seamless integration of correct data from disparate sources into the EHR platform. The absence of any of these elements puts clinical interoperability at risk.

Accurate data at the enrollment stage of EHR implementation is key to accelerating interoperability. With real-time data integration, EHRs can search and select providers by name and other criteria to ensure that a new enrollee's correct data is quickly and easily integrated into the system. **Failure to do so could result in withdrawn or withheld reimbursements.**

Once providers are enrolled in an EHR, they must then demonstrate the ability to exchange information with other providers, in and out of their networks, to qualify for meaningful use reimbursements. Real-time access to complete provider data is vital to this process. Providers must be able to show that transmissions were not only sent, but also *received* by the intended provider. This is impossible without the right data.

As Pharmacists expand their scope of services and play a more prominent role in the healthcare continuum, their ability to exchange information with primary care providers will also be of vital importance. Pharmacists will need the ability to send information about patient immunizations, health screenings, medication compliance and more to the *right* primary care provider.

How real-time data integration strengthens meaningful use

Healthcare providers that demonstrate meaningful use of EHR will receive financial reimbursements until 2015. A recent survey by the National Center for Health Statistics of more than 10,000 Physicians revealed that 78 percent of respondents reported some use of EHR in 2013, and 69 percent intended to participate in CMS' EHR incentive program. However, only 13 percent of Physicians had an EHR system that could meet Stage 2 requirements.

Stage 2 meaningful use requirements include 17 criteria, 14 of which eligible participants must meet in order to qualify for reimbursements. These requirements include more demanding expectations in the areas of e-prescribing, recording lab results, and electronically transmitting patient care summaries to unaffiliated providers.

EHRs with access to correct provider data are the foundation for Stage 2 meaningful use capabilities. Real-time data integration supports eligible participants by enabling the ability to identify cases to a cancer registry or another specialized registry; provide lab results to other providers; submit electronic data to immunization registries; and transmit prescriptions electronically. The ability to search for providers and select complete provider records that integrate into current systems simplifies these processes and ensures the highest degree of accuracy for providers. Real-time data integration also ensures that records are continuously kept up to date.

Failure to meet meaningful use requirements could result in the reduction of all Medicaid or Medicare claims by one percent for every year, starting in 2015.

Pharmacists are in a unique position to help eligible participants achieve meaningful use benchmarks and obtain greater levels of reimbursements by increasing their EHR use, and ensuring that allergy and immunization records are transmitted to the *right* Physicians. This is a challenge for pharmacies that are filling an average of 259 prescriptions a day.

Real-time data integration supports the Pharmacist's role in two ways. First, it provides assurance that pharmacy personnel have correct and complete provider data when enrolling new providers. Second, it reduces the number of manual steps involved in validating key provider data, such as NPI and DEA numbers, and ensures that provider data is complete and accurate.

As meaningful use requirements progress from advanced clinical use to improved health outcomes, the need for providers to simplify manual processes and to have real-time access to accurate provider data will grow exponentially. The same is true for Pharmacists, who will see their roles in the continuum of care expand in the coming years.

The power behind effective electronic prescribing of controlled substances (EPCS)

The transition from hand-written prescriptions to e-prescribing minimizes medication errors, improves the quality and efficiency of healthcare, and reduces costs. But the recent prescription drug abuse epidemic has caused the DEA to tighten its controls over the electronic prescribing of controlled substances (EPCS). According to the DEA, "The responsibility for the proper prescribing and dispensing of controlled substances is upon the prescribing practitioner, but a corresponding responsibility rests with the pharmacist who fills the prescription." 21 CFR 1306.04(a).

In 2010, the DEA revised its regulations to allow Physicians the option of writing prescriptions for controlled substances electronically and pharmacies the legal ability to receive, dispense and archive electronic prescriptions of controlled substances.

For Physicians to become eligible for EPCS, they must complete an identity proofing process by an authorized third party that confirms their legal authority to write prescriptions for controlled substances. Additionally, a Physician's EHR must be capable of performing a two-factor authentication protocol, which gives authentication permissions to an authorized registrant other than the prescribing Physician.

EHRs play an integral in this process, as they should be verifying all Physician credentials *before* allowing them to electronically submit a prescription for a controlled substance. Here, the key is real-time access to accurate provider data. With real-time data integration, EHRs have the power to verify Physician credentialing in a matter of minutes.

There are five different classes of controlled substances, and some Physicians may only the have authority to write prescriptions for certain drugs. With real-time data integration, Physicians can instantly verify the classes of controlled substances for which they have legal authority to write prescriptions.

Physicians who fail to verify their prescriptive authority could face significant fines, the loss of licenses and imprisonment.

Pharmacies also have a legal responsibility to verify Physician data, sanction activity and DEA numbers prior to dispensing prescriptions for controlled substances. Again, real-time access to complete and accurate provider data is vital. With real-time data integration, Pharmacists can identify red flag situations on the spot – and help pharmacies avoid significant fines for prescriptions with invalid, expired or incorrect DEA numbers.

CONCLUSION

The dynamic quality of prescriber data, coupled with the changes surrounding healthcare due to the Affordable Care Act, has created the need for real-time access to data for EHRs, Pharmacies and various other healthcare companies for various purposes, from marketing to minimizing manual validation to streamlining workflow and ensuring compliance.

HDS' Real-Time Data Integration service, which provides access to complete and accurate Physician data, allows for real-time downloads that keep CRM, expense reporting and accounting systems always up to date. Just another way HDS is helping clients keep up with the ever-changing face of Healthcare IT.

**To learn more about HDS' Real-Time Data Integration service,
call us today at 1-877-238-4949 or visit www.HealthcareDataSolutions.com.**