What POLs need to know: meeting "Meaningful Use" criteria for EHR incentives

By Trip Trepagnier

According to the U.S. Department of Health and Human Services (HHS),[1] as of April 2013, more than half of the doctors and eligible professionals in the United States—some 291,000 medical providers—have received incentive payments for the "Meaningful Use" (MU) of electronic health records (EHRs). Hailing that as a tipping point reached ahead of goal, HHS Secretary Kathleen Sebelius noted that EHR systems "are critical to modernizing our health care system."

While more than $5.8 billion has been paid to physicians to promote EHR adoption, achieving the standard of MU has proved challenging. A study published in the *Annals of Internal Medicine*[2] found that fewer than 10% of 1,820 primary care physicians and specialists surveyed met all the MU criteria under the first stage of the law. For physicians with an in-house laboratory, a laboratory information system (LIS) can play an integral role in achieving these criteria by providing connectivity between the EHR and lab instrumentation.

Physicians have been encouraged to deploy EHR systems as part of the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009. Administered by the Centers for Medicare & Medicaid Services (CMS), the program pays financial incentives to eligible professionals and hospitals that demonstrate MU of electronic health records for management of Medicare and Medicaid patients. In order to maximize incentive payments, the HITECH Act requires providers to use the capabilities of their EHRs to achieve benchmarks that can lead to improved patient care.

HITECH implementation utilizes a three-stage rollout, with requirements for MU escalating through 2016. Stage 2 of MU, effective October 2013, increases the importance of electronic interfaces between the lab and EHR systems. For example, computerized physician order entry (CPOE) of test requests and electronic transmittal of clinical lab results as structured data both became requirements. Stage 2 mandates that a minimum of 30% CPOE of lab orders and a minimum of 55% of electronic results be entered into the EHR. An LIS provides the solution for physician office laboratories (POLs) to establish connectivity between the EHR and lab instruments in order to meet these MU requirements. The interaction between the LIS and the EHR serves a greater purpose: to assist in improving overall health outcomes based on data. By capturing dynamic, not static, structured longitudinal data, government agencies can develop national databases of health outcomes to spot outbreaks and health trends, identify best practices, and determine focus for medical, pharmaceutical, and other research.

Introduced thirty years ago, lab information systems were originally developed to communicate with analyzers and orga-nize test results. With the increased adoption of EHRs, the focus of connectivity is now on EHR systems. The LIS accepts and transmits electronic data into EHR systems in real time to help physicians accurately diagnose patients and determine the best treatment. It has been estimated that up to 90% of the clinical information in a patient record comes from the lab and that this data accounts for as much as 70% of the information physicians consider when diagnosing and treating patients, making the LIS/EHR interface critical.

Once viewed as a luxury, the LIS delivers a return on investment through greater accuracy of data and faster access to results. Using digital data reduces the risk of errors and omissions found with manual data entry. Even a minor transcription error can lead to misinterpretation and misdiagnosis. The LIS also speeds the availability of the data, often enabling physicians with in-office labs to make decisions while the patient is still at the practice. For POLs facing a shortage of clinical laboratory professionals to run the lab, an LIS is essential to increasing productivity by automating manual tasks.

Meaningful Use will continue to spur automation by requiring physicians to enter requisitions into the EHR. While some EHRs offer the convenience for a provider to perform computerized order entry, EHR systems may not be able to provide the necessary logic of workflow processing of specimens. Laboratory personnel will be fundamental throughout the process of preparing to meet the standards required by Stage 2 by creating matching EHR test order compendiums and offering guidance to providers who are entering test orders.

For physicians with an in-house laboratory, a laboratory information system (LIS) can play an integral role in achieving "Meaningful Use" criteria.

Although physicians interact with the EHR, not the LIS, the ideal solution creates a seamless interface between the systems. Lab managers and personnel who understand that physicians are learning a new system with CPOE can help with the transition. This is especially true since order entry in the EHR may not follow the workflow that lab personnel follow to process samples. Efforts should be made to create an EHR template that considers the workflow of the lab and to reduce incorrect or duplicate test orders. Once results are complete, the LIS can electronically transmit results back to the EHR, speeding up the communication process to caregivers.

As the criteria for MU become more stringent, physicians will recognize the need to connect CLIA-waived laboratory

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instruments and other diagnostic devices. To achieve a higher percentage of electronically transmitted patient results, increased importance will be placed on connectivity for point-of-care devices such as spirometers, vital sign monitors, and urine strip readers to the EHR. Recently data "appliances" have been developed whose functionality is devoted exclusively to connecting these local devices to the EHR without operator intervention. These systems operate as a data conduit and can be run on existing computers or inexpensive netbooks. If orders can be sent by the EHR, they are staged as pending requests, matched with device results, and transmitted directly to the patient record. If the EHR can only accept results, the data appliance will use identifying information entered by the clinical laboratory professional into the diagnostic device. This information is then included with the results message sent to the EHR, so that results can be connected to the appropriate patient record. This process also offers automatic verification of results that are rules-based and can trigger the billing process upon completion of lab testing, which improves cash flow and billing accuracy.

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The government-backed investment in EHRs focuses on using data to improve overall health outcomes. Yet to get the most out of EHR system functionality, connectivity to an LIS is essential for POLs. The benefits of this move to automation for the POL include the following:
- Reduced transcription errors of manual data entry
- Better compliance with quality standards and CLIA regulations
- Timelier access to results.

With an LIS interface to the EHR system, results are automatically entered into the patient record. This helps physicians comply with other MU criteria as established by the EHR incentive program. Those criteria include providing patients with electronic copies of their health records and summaries of patient visits, as well as securely exchanging health information with other patient-authorized healthcare providers. □

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References

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