

# *eClinicalWorks*



**Testimony to the  
HIT Policy Committee  
Information Exchange Workgroup  
October 20, 2009**

eClinicalWorks is an integrated Electronic Health Record (EHR) and Practice Management (PM) solution. eClinicalWorks solution is deployed in large hospital and enterprise health systems for their employed and affiliated physicians in ambulatory centers; large and medium medical group practices, including FQHCs and community health centers; and also in small provider practices. The product has been deployed in all 50 states, with more than 30,000 providers using eClinicalWorks. The providers and staff use the system within a practice with the option of hosting the infrastructure local to the practice as well as in remote hosted data center.

Electronic Lab interface is a critical component to patient care for an EHR practice. Lab data represents a critical aspect as clinical decisions made by physicians and aggregation of Quality measures are reliant on lab orders and results. This is a critical component of successful EHR implementation and 'meaningful use' criteria to monitor and improve the quality of care. For example: Key measures and decision supports have been established for Lipid control and A1C control, but cannot be fully functional without EHR-interpretable laboratory results. Most practices that go live with the EHR also request electronic Lab Interface with at least one (or even more) lab company. Our goal is to ensure that 100% practices have a functional electronic lab interface at EHR go-live. But there are several challenges to achieve this goal. eClinicalWorks EHR integrates with most national, regional and local Reference Labs, Hospitals as well as other vendor partners that provide Lab diagnostic data. Despite a concentrated effort on the part of eClinicalWorks and its Reference Lab partners over past several years, it has been difficult to provide electronic laboratory interface at go "live" on their EHR. Many of these practices wait months before they get an electronic interface, and subsequently needed to create "workarounds" in the interim. On average, implementing, testing, and validating a lab interface for a practice with National Reference Lab companies take about anywhere from 4-14 weeks. (Please see the document **eCW-Lab Process Implementation.pdf** attached)

The below table identifies the status of Lab interfaces in the past six months:

<b>Lab Interfaces 2009 (Last 6 months)</b>							
	<b>April</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>August</b>	<b>September</b>	<b>Average</b>
<b>New Request</b>	145	158	193	175	150	209	172
<b>Approved</b>	90	84	124	105	144	133	113
<b>Implementation</b>	251	199	290	217	261	291	252
<b>Live</b>	117	118	123	133	137	135	127

As the present rate, the backlog for implementing lab interfaces is 45-50 practices every month. As more physician practices start adopting EHRs, the backlog for Lab interfaces will grow significantly higher.

## **Challenges**

### **Interface Approval Process:**

Before starting any lab interface implementation for a practice, every practice has to go through an interface approval process with the lab company. The lab company evaluates its relationship with the practice and either approves or declines the interface request. Approval involves business considerations (estimated monthly volume, practice's relationship with lab company, size of the practice, other parameters). There is a considerable uncertainty to this process. This process can take anywhere from 2-6 weeks.

### **Validation and testing of Lab Interface per practice:**

CLIA regulation, as we currently understand, holds lab companies responsible for verification of the format of the electronic result viewed by the clinician within the EMR. It also requires lab companies to test and validate each individual interface for a practice. This is a manual, redundant and time consuming process and often results in significant delays in the Interface 'Go Live' process.

### **Lab Compendium (Dictionary) Nomenclature:**

Every lab company maintains their own nomenclature of how the Lab tests are named, codified and supplied to the physician offices. Also the codification for similar tests varies from one Lab company to the other. Quest will have its own 'codes' to identify certain tests and its components. Labcorp uses its own 'codes' for the same tests. A Hospital Lab will use its own nomenclature for identifying the test. If a practice has Lab interface with more than one Lab Company, the practice either gets 2 Lab Dictionaries. The same test gets loaded twice in the provider's list of orderable. The provider has to then pick the test from the 2 lab company compendiums. Alternatively, the practice staff manually maps one lab company's compendium to another lab company's, if they need to keep one lab compendium for the entire practice. This is again a manual, redundant and time consuming process and often results in significant delays in the Interface Go Live process.

Some lab companies give a 'custom' lab compendium per practice. This is based on either practice preference of loading only the commonly ordered tests. Sometimes lab companies offer custom panels for providers.

### **Lab Compendium Ongoing maintenance:**

Once the practice goes live, any changes by the lab company to its compendium has to be manually done by the practice. This is again a manual process.

## **Recommendations**

### **Electronic Lab Result Verification Per Practice:**

In an electronic exchange, lab companies should be responsible only to verify delivery of the standard message to the EHR system. The format for display of laboratory results is highly conserved within the user interface of a given EHR product. CLIA regulations also require validation and certification of how electronic health record products render the information received by clinicians. CLIA requires lab companies to test and validate each individual interface, a laborious and time consuming process. CLIA should allow lab companies to load a 'pre-certified' interface with an EHR to other practices without any further testing.

At the same time, Health Exchanges that act on behalf of hospitals and reference labs to deliver the lab results to EHRs should be subject to similar regulations as the lab companies. These Health Exchanges should be mandated to send 'codified' lab results that can result in parsing lab data for meaningful use.

### **Standard Lab Compendium:**

Require implementation and use of LOINC codes in laboratory results. CLIA should endorse of a standardized coding system for laboratory orders. Adoption of standard national lab compendium that is published and maintained by CLIA would ideal. This will be along similar lines to NDC codes maintained by FDA. This will then facilitate publishing and distribution of electronic compendium updates to EHRs.

### **Leverage HL7 CDA standard and IHE profiles:**

CLIA should mandate lab companies to leverage HL7 version 3.x format and CDA/IHE for delivery of Lab interfaces. This web-based architecture should facilitate secure, reliable and scalable exchange of lab data between different healthcare entities.

### **Other Best Practices:**

eClinicalWorks leverages a Hub and Spoke architecture for delivery of Lab orders and results in Enterprise communities and hospital enterprises. This maintains a single Hub to Hub connectivity between the Lab company and EHR vendor. This Hub also maintains the lab compendium for the lab company. eClinicalWorks proposes a similar setup with reference lab companies.

CLIA regulations should recognize "hub-to-hub" interfaces, allowing for more streamlined approval of each new practice being added to the "master interface."

(Please see the document **eCW\_NationalLabHub\_Exchange.pdf** attached)