

(LOI/LRI) Laboratory Orders Interface/ Lab Results Interface

LOI/LRI has continued on as Lab US Realm, found [here](#)

BACKGROUND (LOI)

The Laboratory Orders Interface (LOI) Initiative is focused on the creation of an Implementation Guide (IG) for the ambulatory setting that builds on the architecture and design of the California HealthCare Foundation's (CHCF) EHR-Lab Interoperability and Connectivity Specification (ELINCS) Laboratory Orders and the Health Level Seven (HL7) Version 2.5.1 Implementation Guide: S&I Framework Lab Results Interface.

Further, the Initiative seeks to design an IG that can serve as a foundation for eventual use in acute care and public health and incorporate vocabulary consistent with the above mentioned guides as well as support for the HL7 Electronic Directory of Service (eDOS) IG. Additionally, tools will be developed to aid evaluation and adoption of messages compliant with the LOI IG generated by Electronic Health Records (EHR) Systems and Laboratory Information Systems (LIS).

The lack of a single, comprehensive implementation guide for laboratory orders interfaces is a major gap in the healthcare standards portfolio. The lack of clear and interoperable implementation guidance for laboratory orders that is aligned with other laboratory data exchange implementation guidance drives up the cost, effort, and time to implement an interface and consequently hampers broad adoption of such interfaces.

Laboratory orders interfaces automate the electronic communication of test order information between EHR Systems and LISs. To date, there is no consistent implementation guidance available for electronic laboratory order interfaces across the ambulatory setting. Implementation guidance that defines the communication (i.e. message structure, data elements, vocabularies) of test orders from an EHR System to an LIS, based on accepted industry standards, can:

- Improve care delivery and clinical outcomes through the tight coupling of order and result messages;
- Reduce implementation efforts and costs;
- Reduce on-going support and maintenance-related activities and costs;
- Provide an extensible foundation for use in acute care and in-patient settings.

The Lab US Realm suite of Implementation Guides are available for download and comment at HL7 using the links below.

HL7 Version 2.5.1 Implementation Guide: S&I Framework Laboratory Test Compendium Framework, Release 2 - US Realm (eDOS)

Product Brief: http://www.hl7.org/implement/standards/product_brief.cfm?product_id=151

DSTU Comments: <http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=172>

HL7 Version 2.5.1 Implementation Guide: S&I Framework Lab Results Interface, Release 1, DSTU R2 – US Realm (LRI)

Product Brief: http://www.hl7.org/implement/standards/product_brief.cfm?product_id=279

DSTU Comments: <http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=171>

HL7 Version 2.5.1 Implementation Guide: S&I Framework Laboratory Orders from EHR, Release 1, DSTU Release 2 - US Realm (LOI)

Product Brief: http://www.hl7.org/implement/standards/product_brief.cfm?product_id=152

DSTU Comments: <http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=180>

HL7 Version 2 Implementation Guide: Laboratory Value Set Companion Guide, Release 1- US Realm

Product Brief: http://www.hl7.org/implement/standards/product_brief.cfm?product_id=413

DSTU Comments: Please use the LRI DSTU Comments link

Background (LRI)

There are at least two standard specifications for ambulatory laboratory reporting, neither of which are adopted universally across industry. The cost and time to initiate new electronic laboratory results interfaces hampers broad adoption of such interfaces. The field by field details of HL7 v2 implementation guides used by clinical labs and EHRs vary, creating a need for mapping or configuration per interface, and the prevalence of core subsets of LOINC codes for common tests and analytes also varies, causing downstream issues in decision support and quality reporting.

Meaningful Use Alignment: Incorporate lab results into EHR as structured data. Supports objectives for Decision Support, Quality Reporting, Transitions in Care, and Electronic copies of Clinical Summaries and Discharge Instructions.

Scope

- Address the challenge of lab reporting to ambulatory primary care providers. This will be driven primarily by the needs of internal medicine, family practice and pediatrics, but may also be leveraged by other providers and settings.
- Optionally: enable pilots that demonstrate electronic results delivery through the agreed-upon standard, including linkages with directories and transport