

REQUEST FOR QUOTE

Contract Name: Implementation Guides for NLM (HL7-NLM-11)

Summary

In this task we will prepare implementation guides that will support users in adopting the selected EHR exchange methodology.

Each participating institution or enterprise will have a unique set of circumstances that define how it uses IT in the delivery of health care within its boundaries. That total set will embrace most of the commercial products available today as well as internally developed components. The sophistication of applications will range from paper records to scanned documents to dictated summaries and reports to structured documents. Some systems will be financially based; others will be clinically based. Terminologies will vary with the most common terminology being local that may or may not be mapped to a national "standard." Finally, the data elements that are collected for a variety of circumstances will not be the same, will not be in a common format, will not have the same names, will not have a consistent meaning, and, in sum, will present the opposite of interoperability.

Whatever the exchange methodology for the Electronic Health Record, it must deal with this miasma of documentation. The proposed solution must accommodate the existing state of events; must support the capabilities of participating institutions, and must have a supportable migration path to the highest goal of structured, aggregated and sharable EHR.

The key to managing this task of sharing health data is a detailed Implementation Guide that clearly defines all steps that are necessary to enable this process in a particular environment. The Implementation Guide must identify the process to be used by an organization to send and receive HER data and distinguish among the set of options. It must identify tools that can or must be used, what those tools are for, how to obtain the tools and how to use the tools. The Implementation Guide must also include detailed steps for evolving toward a more interoperable environment at a pace determined by the site. An example would include switching to a national standard terminology. The Implementation Guide would identify the appropriate terminology, identify the tools that are available to support the conversion, and define the process itself. The Implementation Guide must include examples that make the process clear. The Implementation Guide must identify resources to aid in the process.

Although it is likely that an outline and format for the Implementation Guide can be done before the detail of the proposed methodology is completely defined, there will be a need for close liaison between the two groups. It is also likely that the process of creating the Implementation Guides will influence the methodology and required tools sets for this project.

Throughout this subtask the Project Officer will be provided with incremental components of the final deliverable, e.g., a description of the intended audience for the Implementation Guides. These products will be reviewed first by the Project Officer and then circulated for review and comment by representatives from the Department of

Health and Human Services Health, Office of the Assistant Secretary for Planning and Evaluation. The documents will be revised based on the comments received.

Task Description

1. Define the intended audience for the implementation guides. -- Determine if one guide or a family of guides will be required. It is clear that some data elements – such as laboratory data will be easier to structure and send than data such as medical history data. An inpatient setting might need a different guide from an outpatient setting or a nursing home. HL7 has a Board appointed Committee for Implementation. Members of HL7 who will participate in this task have had experience writing manuals for other groups, most noticeably the Centers for Diseases Controls and Prevention (CDC). These experiences will be drawn upon for initial definitions as to format and content. Whether the Implementation Guides will be in paper or electronic form taking advantage of hypertext options or both will be a question for this group.
2. Develop format for the Implementation Guide. -- Existing Implementation Guides from HL7 and from other relative implementations will provide a starting point. The first task will be to determine whether the guide will be paper-based or electronic. Once that is determined we will create a template or structure for the Implementation Guide that is appropriate to the delivery mode.
3. Develop outline. -- The Implementation Guides will detail what is required, depending on the IT status, to send data as part of a defined EHR structure from one site to another. When and how that data is sent will be defined. If translations are required they will be presented, along with tools that are available to assist in the task. The Implementation Manuals will support a variety of communication protocols, depending on what is required among all the participants. The outline should include the different subject areas discussed in the above narrative.

We will solicit comments on the outline particularly from groups developing the selected methodology and from the HL7 EHR Technical Committee to review the outline. At the end of month 6 we will submit to the Project Officer deliverable (2b) Proposed Outline And Format For The EHR Implementation Guide. Based on comments from the Project Officer and by representatives from the Department of Health and Human Services Health, Office of the Assistant Secretary for Planning and Evaluation we will revise the outline and submit a final version by the end of month 7

4. Develop content -- The content should thoroughly explain the methodology, the L7 messages used, and any translations required. Trigger events should be identified. The Implementation Guide should contain scenarios that aid the user's understanding of how to package the data to make it easy to understand and incorporate the data into the receiver's EHR. Patient Identification and the creation of a Master Patient Index will be discussed in the Implementation Guides. In the absence of a unique patient Identifier, the current best identification algorithm will be included. It is likely that APIs will be made available as part of this process to execute the algorithms. Other identification

procedures will be discussed, including the identification of health care providers, facilities and employers.

5. Prepare draft -- The draft will be tested against various scenarios and for a variety of sites and with individuals not involved in creating the Implementation Guide. The draft will be submitted to the HL7 Implementation Committee and to the EHR Technical Committee. We will revise the draft based on their comments.

Deliverables

Deliverable	Task	Proposed Due Date
(2b) Proposed outline and format for the EHR implementation guide	3	End of month 6
(2c) Draft implementation guide(s) for the model(s) selected in 2a, including a reference table of potential data elements mapped to the HL7 RIM with data definition, terminology, structure, and units.	3	Draft end of month 11 Final end of month 12

Required Skills

Desired Skills

Expected Start Date

February ____, 2005

Estimated Hours

Twenty-four (24)

Expected Duration

Tools, queries, programs, transforms, models, and methods used will be explicitly documented. Intellectual property will enter the public domain under the ownership of HL7.

Payment will be dependent on approval of the deliverables and payment by NLM to HL7.