Health Level 7 - Working Group Meeting Report

Cleveland, April 27 – May 2, 2003

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Introduction

This is a report of my involvement in the HL7 Working Group Meeting held in Cleveland Ohio between the 27th April and 2nd May 2003.

My travel and accommodation expenses were supported by HL7 Australia, as the nominee of SA-IT-14-6-5, under an arrangement with the Commonwealth Department of Health and Ageing Quality Use of Pathology Program (QUPP). Michael Legg and Associates however, was the principal sponsor of this trip covering the time involved.

This is the second HL7 Working Group Meeting that I have attended.

This report is intended to fulfil the requirements of the travel grant guidelines of HL7 Australia to report on the meeting within 6 weeks of return including transferring information to the appropriate Standards Australia working groups.

An interim report was distributed to the HL7 list 2nd May 2003. This final report will be presented to meetings of HL7 Australia 13-14 August, to SA-IT-14-6 6th May 2003, SA-IT-14-6-5 16-August 2003.

Scope of Participation

401 registrants including, 70 International (12 Australia +1 NZ) attended 31 Technical Committees and Special Interest Groups and 17 other meetings. The program and descriptions of the purpose of each group together with the agendas can be found at http://www.hl7.org/events/cleveland042003/index.asp

Reflecting the activity in pathology informatics in Australia I participated in the following HL7 Technical Committees and Special Interest Groups:

- Orders and Observations (OO) TC
- Vocabulary TC
- Automated Laboratory and Point-of-Care-Testing SIG
- Clinical Guidelines SIG
- Electronic Health Records SIG
- International Mtg

I also attended a tutorial 'Standards in Clinical Decision Support: Using Arden Syntax' partly for preparation for the coming HL7 Australia Meeting which has as its theme Clinical Decision Support.

Outcomes of Meeting

Version 2.5 finally appears to have past ballot including resolution of the Australian major negatives for pharmacy. All Australian input to this version has been included. Version 3 ballot resolution continues, with another 3 ballot cycles expected. A number of trial implementations are in progress in the UK, The Netherlands, Japan, etc.

Australia participated actively in both ballots and was one of the major balloters of V3, to ensure that the design concepts and technical detail is compatible with Australian requirements.

The group of HL7 Affiliates has been further enhanced with the re-affirmation of New Zealand and Turkey as Affiliates and the admission of Mexico as a new Affiliate.

Vocabulary

HL7 vocabulary TC has recommended that there should be vocabulary domain standards in each realm/context (eg. UK, USA Veterinary) which apply across health domains eg. the same drug identifiers used in GP, Community, Specialist and Hospital domains. From a HL7 perspective this affects the process of validation or conformance to HL7 standards. This will require consideration for action in Australia in relation to existing V2.x standards.

HL7 is progressing with a structured approach to downloading HL7 maintained and registered vocabularies. A central terminology service is being developed both as a physical repository (based on LDAP server model) and a common API specification.

The US Government (in addition to other health standards development processes) has established a cross Departmental process called Consolidated Health Informatics (CHI) linking primarily Health, Defence and Veterans Affairs. This set standards directions for Government agencies and will act as an influence on industry and opportunity for Government leadership without recourse to regulation. Standards have already been released for messaging (HL7v2 and v3 to be fasttracked). It should be noted that all the major US Government agencies are active participants in several HL7 standards areas.

The negotiations regarding a national US SNOMED-CT licence have concluded and are being processed.

There was significant interest in the Australian Pathology Codes web site both for its content and the process. There has been an indicating to incorporate the Australian Request Codes in the LOINC review of request codes.

Referral

After working through storyboards and activity diagrams the Patient Care TC was able to secure the change of mood code from order to request as required for Referral has been accepted.

Further work has been done on the Storyboards, domain UML Class model, and Activity diagrams as started within IT 14/6/6. The RMIM has been developed to support Shared Care and Referral and the Patient Care TC will include these in the coming ballot after further work by members over the next 6 weeks. The Australasian team also undertook refinement and further development of the storyboards, activity diagram, and RMIM.

This will be continued within IT14/6/6 in the next few weeks. IT14-6-6 working group met twice in the evenings, joined by a number of international delegates, to further develop the domain model R-MIM and resolve recently discovered outstanding problems with V2 Referral message.

The Structured Documents TC has reviewed our proposals for enhancements to the CDA Release 2 specification necessary to support Referral. Again further discussion of some of these items on the list server has been requested and will start next week. The TC wants our work included in the coming ballot so that Referral can be represented in CDA as well as V3 messaging.

UK and Finland have joined the Australasian effort on Referral, Finland for CDA and UK for both this and V3 messaging.

This may be a generic message that will in due course incorporate pathology requests.

Clinical Decision Support

Clinical Decision Support has, at this meeting, engaged the HDF methodology, which we have been recommending at all the recent meetings. This is an important step to resolve the impasse between competing guideline approaches and difficulties in the overall direction of HL7 Decision Support. It also provides a mechanism for Australasian requirements to be accommodated. Australasian members will work on application of the HDF methodology particularly the requirements and activity diagram.

We have begun exploratory discussion with TC members from the US and UK regarding the delivery of Guideline and Decision Support conference sessions at the coming HL7 meeting in Australasia.

"Orders"

The term used for a mood code has been changed from 'order' to 'request' after 2 years lobbying. This was approved by the V3 Facilitators Round Table meeting.

V3 Issues

Much of the OO sessions during the week was spent resolving ballot issues related to V3. The methodology is becoming clearer to the participants and is useful regardless of whether messages are V2 or V3. Australia provided more than its share to this process.

Substantial progress has been achieved on issues raised by Australian attendees. Some of these include simplifying the V3 Dynamic model, upgrading the descriptive content of the V3 components, improving the navigation and presentation of the ballot material. As some of these improvements require changes to the tooling, they may not be evident in the next V3 ballot cycle.

Significant work has been done in Patient Care Technical Committee to develop ballot content for a Patient Care domain in the next ballot release. This will include a message for a referral and a discharge summary. Significant amount of this work has been and will continue to be done by the Australian and New Zealand contingent outside of this meeting.

The Australian RIM ballot responses were reviewed and a few issues where accepted with modification whilst the others (the more significant issues) were found as "Not Persuasive" for this version of the RIM. It was acknowledged that they were issues but would be deferred to a later version of the RIM. This was accepted as long as there was a process in place, which would allow the RIM to evolve and be improved. This item was discussed later in the week and guidelines were documented to indicating what can be changed without re-balloting the RIM and others that would require them to be approved via the balloting process.

A few out of committee meetings were held to provide a mapping of OpenEHR archetypes to V3 RIM structures, which evolved towards a preliminary proposal. A series of RMIM extracts were developed to have a one to one mapping from the OpenEHR List_s, Single_S, Tree_S, Table_S and History structures. These can be used as a pattern to represent an instance of an Archetype such as an Full Blood Count. These structures are valid constrained models of a Generic Archetype RMIM extract that may be proposed as an alternative Observation message representation when the required lobbying carried out. An outcome of this may be a Archetype CMET.

Sunday afternoon and evening included a tools training session, which took a room full of people from the writing of storyboards, drawing RMIM diagram, creating HMD's and generating XML Schema's. This should improve the number of people who have the capability to produce the V3 artefacts including a group of Australians.

This Working Meeting has been even busier than every before, as the V3 work moves towards completion. While there are certainly modelling and methodology issues with the current V3 ballot, it is approaching implementability. The infrastructure has taken leaps and bounds towards a workable standard:

* XML Data types are expected to pass Normative ballot
* Abstract Data Types are expected to pass Informative ballot
* several issues with the schemas have been resolved

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Evaluation of Benefits and Difficulties of Continued Participation

My comments from the last report hold: Beside the sheer intellectual power and experience of the attendees at this meeting, what impressed most was just how international HL7 has become and how broad the domain of activity in standards development is now. It seems clear to me that this group is going to be the source of most health informatics standards for the foreseeable future.

Australia is making an important contribution in most areas and carries a degree of prestige and weight in its participation well beyond our due based on size alone.

Recommendations and Actions

There is a requirement for an increase in awareness and activity relating to Standards that are used in Electronic Clinical Decision Support. This is strongly supported by the recent Health ON-Line task force report. This is to be addressed at the coming HL7 Australia Workshop 13-14 August and also the Pathology Informatics Meeting to be held 18-19 September 2003. Progress was made in arranging material and faculty for both meetings.

There is significant interest in both the content and process around the pathology code set web site as a way of improving electronic working. A presentation has been requested for the next meeting.

Michael Legg, 5-May-2003