HL7 EHR Technical Committee Meeting Minutes
HL7 September 2005 Working Group Meeting, San Diego

HL7 EHR TECHNICAL COMMITTEE MEETING MINUTES 1

MONDAY, SEPTEMBER 12TH, 2005 2

AGENDA
MINUTES:
Q1 – PLenary Session – No EHR TC Meeting
Q2 – PLenary Session – No EHR TC Meeting
Q3 – WELCOME AND INTRODUCTIONS
Q4 – REVIEW OF HL7 EHR WORKGROUP ACTIVITIES

TUESDAY, SEPTEMBER 13TH, 2005 7

AGENDA
MINUTES:
Q1 – ELECTIONS - RECONCILIATION
Q2 – BREAKOUT GROUPS
Q3 – BREAKOUT GROUPS
Q4 – GROUP REPORTS

WEDNESDAY, SEPTEMBER 14TH, 2005 9

AGENDA
MINUTES:
Q1 – EHR-TC TECHNICAL SALON
Q2 – EHR-TC CLINICAL SALON
Q3 – PHR PROJECT REPORT AND MOVING FORWARD
Q4 – PUBLISHING AND BALLOT WRAP-UP
WEDNESDAY EVENING – EHR SERVICES MODEL ERROR! BOOKMARK NOT DEFINED.

THURSDAY, SEPTEMBER 15TH, 2005 16

AGENDA
MINUTES:
Q1 - CONFORMANCE CRITERIA
Q2 – NEXT STEPS/ACTION ITEMS
Q3 – BREAKOUT GROUPS
Q4 – BREAKOUT GROUPS
Meeting Dates | Location
---|---
September 12th-15th 2005 | Town & Country Resort Hotel, San Diego, CA

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<th>Attendees</th>
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Date | Time | Location
---|---|---
Monday, September 12th, 2005 | Q1-Q4 | Pacific Salon 1

**Agenda**

Q1  Plenary Session – No TC Meeting
Q2  Plenary Session – No TC Meeting
Q3  Presiding Co-Chair: Linda Fischetti
  1  Welcome and Introductions
  2  Begin review of HL7 EHR workgroup activities
Q4  Presiding Co-Chair: Linda Fischetti
  1  Review of HL7 EHR workgroup activities (cont.)

**Minutes:**

Q1 – Plenary Session – No EHR TC Meeting
Q2 – Plenary Session – No EHR TC Meeting
Q3 – Welcome and Introductions
TC Introduction and Overview
Review of proposed agenda

**Quorum**
Teleconference Quorum set to 30% of Working Group Meeting First Day Q1 attendance.
Attendance: 33
New Quorum: 9 + 1 presiding chair

Discussion on how the current Functional Model is and may be used and today:
- Input into the Certification process by CCHIT
- Use as the basis for an RFP
- Germany---model of architecture
- Reference for completeness---functional requirements
Q4 – Review of HL7 EHR Workgroup Activities

Security/Privacy Subgroup
Have written Conformance Criteria as requested by the EHR TC in Holland. These will be available next week and include, among other topics:
- Audit trial
- Synchronization
- Unique identity, registry and directory service
- Distributed registry access

LTC/NCPDP Joint Workgroup (Long Term Care/National Council Prescription Drug Programs)
Created in Spring 2005
Address e prescribing issues/MMA/Part D
Also started HL7 subgroup
Feedback on the DSTU
Work jointly with EHR TC’s LTC Minimum Function Set
www.ncpdpwg14.org
Workgroup goal: Jointly review/discuss the DSTU to provide develop conformance criteria/statements unique to LTC and develop a roadmap for the evolution of the EHR over time

Interoperability Report
Will be a presentation on this Tuesday afternoon by Gary Dickinson
Update from Don Bechtel via Gary Dickinson: X12N and HL7 cross mapping
Pam Morgan and Kathleen Connor have moved on to other projects. May need some assistance with the crosswalk.

Direct Care Report
How to go about writing conformance criteria.

See public comment material spreadsheets

- How to guide with do’s and don’ts
  - Help notes, not binding
  - Presents steps and principles
  - Targets functional model, but useful for profiles
- Steps
  - Read the function carefully
  - Separate into meaningful sentences:
    - What does it mean to implement this function?
• Condition to hold true, behavior or actions to take
  ▪ Identify the actor and interaction
  ▪ Is this mandatory or optional?
  ▪ Check for dependencies and co-relationships
  ▪ Shall (essence of the function) vs. should (hard to imagine) vs. may

• Principles
  o Keep each statement simple, clear, precise
  o Make criteria technology neutral
  o Do not change the functionality of the FM
  o Do NOT mix technologies – be consistent
  o Constrain optionality and cardinality
    ▪ What features, values, etc need to be there?
    ▪ How many (0 or more, choose 1, at least one)
  o State explicit dependencies and constraints
  o Do NOT state how to test
  o Do NOT rely on formatting or context to convey intentions
    ▪ Don’t count on italics or bold to convey information
    ▪ Use normative language (shall, should, may)

Supportive Report

Infrastructure Report
  1. All conf criteria for all the functions, created new functions – after reviewing some that were not entirely clear
  2. Some more to do
  3. Sue did do strikethroughs to show how the work changed

DSTU – will evolve as people work with it.

Vassil – Information and Infrastructure group: approach the work by defining conf for existing functions as they are then go back and restructure the headers as decided at the last minute – easier to restructure things first. Made some changes to subsections with information and clarified and important and see some feedback with this meeting.

Now go back to parked items from DSTU and begin working on them.

Legal Report
Scope: The charge of this work group will be to review the EHR functional model a

Work group charge:
  • Review existing key characteristics

Sub group #1 – address necessary controls to prevent unauthorized data alteration and manipulation
Amendment and correction
Adding of omissions
Adding late entries
Redacting – we will discuss a possible technical solution that will successfully redact text so that it cannot be undone or over written
EHR auditing abilities

Sub group #2 – address necessary controls to ensure data consistency and integrity

- Data entry and capture
  - Timeliness
  - Date & time stamps
  - Linking each entry to a patient
  - Accuracy
  - Continuity of entries
  - Permanency of entries
- Retention
- Record destruction
- Record ownership and stewardship
- Record completeness
- Definition of the complete record for release of information (what is complete record)
- Release of information guidelines and standards. The use of “print sets” and “present print files”
- Use of pre-defined printed output
- Define legal medical record in the discovery process
- Data integrity
  - Disaster planning
  - Contingency planning

Steps in the process
- Used HL7 EHR DSTU as an organizing framework
- Conducted a brief environmental assessment of existing work
- Submit proposed conf statements, comments, findings, and other input to the EHR – TC
- Develop HL7 educational program and “Shareable knowledgebase”

Final report the EHR – TC
1. introduction and overview
2. purpose and scope
3. how are the conf statements

EHR functions addressed:
- health info capture, mgmt, and review
- identify and maintain a patient record
- manage clinical documents and notes
• entity authorization
• non-repudiations
• secure data exchange
• secure
• Medication ordering and managements

Recommended functions
• Management of version control
• Contingency management (not part of original functional scope)
• Disaster plan management (not part of original functional scope)
• Data integrity controls

Supporting guidelines and standards
• ADA
• IOM
• JAMA
• JAMIA
• HIMSS

The definition of legal EHR:
The legal business record generated at or for a healthcare organ during the normal course of business.
This record would be released upon request.
The record can be in any medium to include the electronic medium
The legal medical record is defined by facility policy and must conform to national and local laws and standards.
Tuesday, September 13th, 2005

**Q1-Q4**

Pacific Salon 1

**Agenda**

**Q1**
- Presiding Co-Chair: Co-chair
- 1. Review of Public Period

**Q2**
- Presiding Co-Chair: Co-chair
- 1. TC Breakouts - Conformance Criteria and Public Review results review

**Q3**
- Presiding Co-Chair: Co-chair
- 1. TC Breakouts - Conformance Criteria and Public Review results review

**Q4**
- Presiding Co-Chair: Co-chair
- 1. TC Breakouts - Conformance Criteria and Public Review results review

**Minutes:**

**Q1 – Public Review Period**

**Announcements**

1. ISO has a slot for the EHR 215
   - ISO xxx has 8 working groups
   - WG1 and WG8 are both interested in the EHR standard
   - Will end up with WG8---which is where it should be
   - Interested in interoperability

2. Opportunities to see how the EHR may be used
   a. HITSP (standards panel) if RFP is approved-----will take the place of the HISB
   b. ‘Use Case Development’ process needs to be integrated into the EHR Standard
   c. Grants/RFPs
      - RFP #1 has been awarded--good place to look for harmonization
      - 3 more RFP’s are to be awarded
        - Certification
        - NHIN
        - ARC
      - Each needs 3 recommended use cases that go to the AHIC---AHIC decides 3 common use cases

**Public Comment Review**

What was in the Ballot Package
- Readers Guide
- Conformance Clause for EHR
- EHR Conformance Guide (August 2005)
- EHR-fm-dc-p1
- PublicComment ehr fm dc p1 2005sep.xls
EHR received 5 responses and about 200+ specific comments
Need to review the comments as a team and decide the disposition.

**Q2 – TC Breakouts - Conformance Criteria and Public Review results review**
Small group breakout sessions
Break out by authoring group to create Conformance Criteria and review public comment period results.

**Q3 – TC Breakouts - Conformance Criteria and Public Review results review**
Small group breakout sessions
Break out by authoring group to create Conformance Criteria and review public comment period results.

**Q4 – TC Breakouts - Conformance Criteria and Public Review results review**
Small group breakout sessions
Break out by authoring group to create Conformance Criteria and review public comment period results.
**Agenda**

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<th>Presiding Co-Chair: Corey Spears</th>
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<td>EHR Technical Salon</td>
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<td>- Security and Accountability</td>
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<td>- Service Oriented Architecture</td>
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<td>EHR Clinical Salon</td>
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<td>- Patient Care</td>
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<td>Conformance Criteria and Public Review results review (Wrap-up)</td>
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**Minutes:**

**Q1 – EHR-TC Technical Salon**

**Services Specification Project**

The underpinnings of an architecture is mandatory to support

**Organized into 3 subgroups**

Infrastructure group working on methodology and metaspec
Entity ID Service
Record Locator and Access Service
Vocabulary

**Relationship formed with Vocab TC**

CTS II is using HSSP Infrastructure
HSSP Terminology work has been subsumed under the above

Specifications to be ready in January 2006
Service Development Framework
Will show how the Framework ties into HER

See [www.omg.org](http://www.omg.org)
Look at Entity ID spec.

**Opportunity**

ONCHIT procurement has elevated interest in the US
Collaboration with IHE is in the early stages
Is real---IBM, Kaiser, Government---all playing

Future --- running as a project ---have deadlines and objectives that drive progress

SDF is incorporated into the HDR framework in 3 years

Ken Rubin -
See what allergies SIG/TC are doing.
Object Management Group (OMG)
Integrating the Healthcare Enterprise (IHE)

Standard that address function semantics and technologies
Complementing existing work and leverage existing standards
Looking at explicit behavior not implicit.

Privacy and Security Expert Panel
Conformance Criteria Development Project
September 14, 2005

Harry Rhodes, AHIMA

Conformance Criteria
  Will be sent to the TC to reviewer
  SHALLs --- have industry wide best practices
  SHOULDs --- did not necessarily have best practices available
  MAYs --- good to do

ONC Anti-Fraud Project – 2005

Will be a report coming out ---soon
  Tasks of the project:
    Use of Auto coding Software
    Interoperable HIT Infrastructure

  Economic Model
  General Principles
  Fraud Management:  non repudiation in prevention and detection
    Audit trails, backdoors,

  Law Enforcement and Prosecution
  Information Technology and Infrastructure

Report on the Use of HIT to Enhance and expand Healthcare Anti-Fraud Activities
EHR TC may need to look at that.

Nancy Orvis
Genomics

Presentation Outline:

- A biomedical RIM is needed to achieve health semantic interoperability
- CG Static models
  - HL7 CG efforts: story boards, static models, etc
  - The Genotype shared model
  - Enabling the “encapsulate & Bubble up” paradigm
- The clinical genomics dynamic model (new in Sep 2005)

To Achieve semantic interoperability … we need standard specs derived from a central health RIM:

The bubbling up process can take into account the most up to date knowledge, the patient specific condition at a point in time and the specific use case requirements and actual message.

Clinical Genomics Static Models

Start with Storyboards
- Tissue typing
- BRCA
- Cystic Fibrosis
- Pharmacogenomics

Results in a clinical statement shared model

Develop mapping cues between raw data elements and genotypes

HPCGG Center for Genetics and Genomics

Moving from static to dynamic models
- Family History
  - Pedigree Model used today used to create an XML model
  - Will have this approved for a DSTU

This needs to then feed into the EHR---dynamically

Both the Surgeon General and CDC have initiatives for people to know their histories.
Symposium on Family History
Hand to doctor in HL7 format, not paper
  - Patient to self-collect would help decrease privacy issues.
  - What can be stored in an EHR and who can see it.

Review of HER and Genomics shared requirements in the EHR
- S.3.5.1 Related by genealogy
**Motion:** Remove S3.5.1 from the next ballot for public comment.

**Motion:** restated – Extract all the functions listed in the ballot response [from Fox Systems Inc.], and take them to the [Small Ambulatory Care] MFS group for consideration.

*By:* Lenel James

*Second:* Kevin Hughes, MD

**Discussion:**
Where will this be stored so it is not lost in the future? Would like to know where it will be referenced for future use. It will have to be known by the name:

Related by Genealogy, known as function S3.5.1 in September 14, 2005

S3.5.1 will be reused over time. This lead to a discussion of versioning and the importance as the models are changed. It is appropriate that this function be removed as, in the US realm, it is not feasible to implement and the technology does not exist in the short term to support this function.

Gary Dickenson suggests that the function be kept in the profile as the profile does support future needs.

Related by Geneology is not the same as Genomics. Geneology includes biological family relationships and may be sufficient for the current work. Linkage of the birth mother and babies. The system may track birthmother/child relationships.

**Friendly Amendment:** leave function S 3.5.1, but remove conformance criteria #3 from S.3.5.1 Related by Geneology.

*By:* Lenel James

**Vote:**
- **Affirmative:** 15
- **Opposed:** 4
- **Abstain:** 3

Discussion on this section to ensure that we are not affecting the requirements for Genomics:

- DC1.1.4 Family History
- Meets the requirements by genomics.

**Patient Care**
Suggestions for governance. If we can predict the current trend we could have twice as many organizations or group to manage in the next two years. They sit between the functional specs and the detailed output that comes out in CDA and other areas.

1. Support/manage a large number of groups

Publicizing what has happened in the various groups
Partnership between PC and structured IG specification published on Monday for allergies,.... Including SNOMED

Q3 – Interoperability Workgroup Presentation
Gary Dickinson
Came together in March 2005 – naturally split into 3 areas of focus
- Compilation and analysis of industry “Interoperability” definitions
  - Research/reference/foundation project
  - Lead: Patricia Gibbons – Mayo
  - ~75 definitions compiled
    - Many sources, including HL7, NAHIT, ISO
  - Sample of findings: many common concepts, exchange and/or use, unique stakeholder perspectives. Ubiquitous to highly technical
- Next Steps
  - Compilation, analysis and findings: white paper
  - Present to full EHR TC
  - Post on HL7 website
  - Seek industry recognition: press release, publication
- Craft a new HL7 definition for “EHR interoperability”
  - Lead – Donald Kamens, MD, Xpress technologies; St. Vincent’s Medical Center, Jacksonville, FL
  - Start with key findings of compilation and analysis project
  - Possible outcomes
    - Recommend existing definition
    - Recommend revisions
    - Recommend a new definition
    - Make no recommendation
  - Related issue
    - Standing of existing HL7 interoperability definition.
- Approval steps
  - Define
  - When/if approved, seek full HL7 approval (revise as applicable)
  - When/if approved, prepare ballot draft
  - Ballot
- Next steps
  - Draft in development: form pithy def sentence with 1-2 page elaboration
  - Survey of EHR Interoperability concepts and topics
- Complementary models
  - EHR System interoperability
    - System functional model
      - Specifies functions (functional characteristics) of an EHR system which ensure its interoperability
    - Interoperability model
      - Specifies characteristics of an EHR record which ensure its interoperability
Interoperability Model
- Objectives:
  - Establish a common industry reference for EHR Record interoperability
  - Establish a requirements first standard specification
  - Establish a complementary companion to EHR-s functional model
  - Establish testable conf criteria for validation of EHR Records
  - Establish current and forward benchmarks to achieve persistent legal EHR records
  - Specify the EHR record I context of its flow and lifecycle
  - Specify the EHR record in context as immediate record (documentation) of health delivery process
  - Specify WHAT and WHY but NOT HOW
  - Ensure a technology, vendor and product neutral specification
  - Build on HL7 V3 RIM foundation, including primary classes: act, actor, role, participation
  - Leverage HL7’s (ANSI accredited) open, consensus standards development process
  - Ballot and publish a DSTU
  - Enable specific conformance profiles

Why is defining interoperability important?
“Certainly, lack of interoperability is commonly cited as the biggest barrier to attaining the promised benefits of HIT investment. One’s definition of interoperability shapes the size and scope of the problem.”

Interoperability: Concepts commonly conveyed in existing definitions include:
- Technical
  - Connectivity
  - Fidelity (includes context)
  - Message structure
- Semantic
  - Shared map of reality (ontology)
  - Shared context assumption (Domain)
- Social/Process
  - Collaborative design
    - A priori design collaboration (and/or)
    - Post facto regulation, constraint
  - Characteristics of process-driven applications

Today, our interoperability is largely by the human mind. Question is where do we go from here to get a higher-level human mind

Level 1 (low)
- Technical: reliable connectivity transmission
- Semantic: HL7 2.x
Social: regulation
Level 2 (Med) – a miracle happens here
- Tech: shared standard for exchange of data and programs (XML)
- Semantic: common data model (v3 RIM) + domain-specific standards
- Social: Selected constraints on common models

Level 3 (High)

Semantic interoperability definitions vary greatly

**Q4 – Conformance Criteria and Public Review results review (Wrap-up)**

Direct Care completed the received public comments
Supportive had received additional comments and finished those.
Thursday, September 15th, 2005

Q1-Q4

Hampton Sheffield Room/Pacific Salon 1

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<td>Presiding Co-Chair: Vocab Co-chairs</td>
<td>Vocabulary Committee host for all NLM Project (in Hampton Sheffield Room)</td>
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<td>Next Steps and Action Items</td>
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<td>Presiding Co-Chair: None</td>
<td>No formal TC Meetings - Breakout work continues</td>
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**Minutes:**

**Q1 - Vocabulary Committee host for all NLM Project (in Hampton Sheffield Room)**

See Vocabulary committee minutes for details.

**Q2 – Next Steps and Action Items**

Direct Care by the first TC meeting in November to be ready for Committee level ballot

Consistency across II, Supportive and DC by end of November

Identify 4-5 areas that need to be reviewed by Patient Care---take up in the next call

Outreach on calls to various groups as an outreach effort

Need to send to publication 11/15

Committee level Ballot on November 21

Full membership ballot must pass to become a normative standard

**Motion:** The TC will support the conformance working group working with Canada InfoWay and other SIG to draft FM Profiles.

**By:** Lenel James

**Second:** Gary Dickinson

**Vote:**

**Affirmative:** 11

**Opposed:** 0

**Abstain:** 0

**Motion:** The Work of San Diego on Conformance Criteria will be passed by Pub WG into Draft 4-Chapters for Ballot for submission to TC at 1st October Meeting for
consideration for industry public comment in October, as prep for November prep of 1st Informative Ballot.

**By:** Lenel James  
**Second:** Gary Dickinson  
**Discussion:** Catherine – cart before the horse? Lenel: No. Clarification on what the publication working group means (Internal to EHR). Peter: Have to go to Ballot in November  
**Vote:**  
**Affirmative:** 11  
**Opposed:** 0  
**Abstain:** 0

**Motion:** Updated/revised work of interoperability team to be submitted to the TC for 18th October Meeting for consideration for industry Public Comment at the end of October.

**By:** Lenel James  
**Second:** Catherine Castner  
**Discussion:** Peter: going to be a lot of discussion over the next couple of weeks. I think there is a lot more feedback that we need to collect. Can we “cut it” at some point and get it out. Peter: October 1st is only 2 weeks away. Gary/Peter: discussion on date. Gary is comfortable with October 1st as cut off; bring it back w/ revisions.  
**Vote:**  
**Affirmative:** 11  
**Opposed:** 0  
**Abstain:** 0

**Motion:** Keep public comment documents still available on website and keep feedback coming in through remainder of month.

**By:** Corey Spears  
**Second:** Sue Mitchell  
**Discussion:** No harm in getting some comments back. Peter Make no promises to get formal dispositions on each comment  
**Vote:**  
**Affirmative:** 11  
**Opposed:** 0  
**Abstain:** 0

**Workgroup updates**

Direct Care: Made it through all the public comments and revised conf criteria and functional model accordingly.

Supportive: Made it through all the public comments from John Ritter and LTC, including motion.

Information Infrastructure: got done with hand writing all the comments.
**Remaining to do**

Write and vet remaining conformance criteria for Direct Care. Be done by first TC meeting in November (November 15th for publications) to be submitted to HQ last week of November. Approx 6 weeks. How many functions without conformance criteria – 36 total (20 to be vetted, 16 to be done), need to complete 6/week.

Direct Care call agenda: 9/23/2005 – add to agenda – discussion on getting input from other groups.

Some discussion on interoperability definition – send current work to EHR list.

Project Scope for anything that goes to ballot – great topic for upcoming conference calls.

**Q3 – No formal TC Meetings - Breakout work continues**
Write/evaluate Conformance Criteria

**Q4 – No formal TC Meetings - Breakout work continues**
Write/evaluate Conformance Criteria