

HL7 Guidelines Workshop Clinical Perspective

David Rowed.

IT 14/6/6 — Referral and Health Service Messaging
HL7 Australia.



HL7 Guideline Workshop, August 13-14, 2003

Guidelines: Clinical Standards Environment

- Mismatched Health Information Models supporting:
 - Messaging
 - EHRs
$$EHR = \int Message dt$$
- Clinical Knowledge
- DSS needs / Guideline applicability
- DSS Formalism hunger



HL7 Guideline Workshop, August 13-14, 2003

Clinical Knowledge

- Definitional
 - Archetypes
- Phenomenological
 - Archetypes
 - Scientific Knowledge
- Strategic
 - Guidelines
- Patient Centred
 - EHR



HL7 Guideline Workshop, August 13-14, 2003

HL7 Version 2 – Clinical Concepts

- Prescription Messaging
- Laboratory messaging
- Registry Notification
 - Issue focussed
 - General: Event Summaries
- Patient Care
- Referral
 - Discharge Referral
 - Shared care
 - Event Summaries



HL7 Guideline Workshop, August 13-14, 2003

HL7 Version 2 – Clinical Concepts

- Medications
- Results and Clinical Observations
- Diagnoses, Problems,
- Goals and Pathways
- Provider Roles
- Variances



HL7 Guideline Workshop, August 13-14, 2003

HL7 -- Arden Syntax SIG

- From ASTM
- HL7 ANSI Standard
- Only major CDS Standard
- Version 2.1
 - December 2002
 - XML Write statements
- Version 2.5
 - OO notations
 - ?further XML encoding
- Version 3 -- possibilities:
 - RIM Compliant?
 - Fully OO?
 - Gello Expression language



HL7 Guideline Workshop, August 13-14, 2003

HL7 --Guidelines SIG

- GLIF and other Guideline developments
- CPGA
- GEM
- Workflow and Decision models
- Solution not requirements-based directions
 - Need for HDF
- No proposals
- Not in ballotable state



HL7Guideline Workshop, August 13-14, 2003

HL7 EHR SIG (1)

- HL7 historical resistance (messaging history)
- Sponsored by CDS TC
- Importance of EHR to CDS
 - Arden Curly Braces
 - vMR
- Initiatives Australian and European
 - GEHR
 - openEHR
 - CEN
- Australian Co-chair



HL7Guideline Workshop, August 13-14, 2003

HL7 New Clinical Initiatives --EHR SIG (2)

- Relationship to CDA and Templates
 - ShARM
 - Archetypes
- Scope has been controversial
 - Different expectations
 - Distinguishing Clinical from Admin
- EHR Issues:
 - Applicability of RIM and V3 Data Types
 - EHR wrt HL7 V3 Messages
 - HL7 V3 Messages vs EHR Extracts



HL7Guideline Workshop, August 13-14, 2003

HL7 Version 3

- Need to deal with ambiguity
- Disciplined model-driven approach--UML
- Development over 5 yrs
- Evolution with HDF
 - Requirements driven
 - High level UML domain model (not RIM)
 - New projects eg V3 Discharge Referral
 - Gradual compliance by TCs
 - Eg Need for CDS / Guideline work



HL7Guideline Workshop, August 13-14, 2003

HL7 Version 3

- Reference Information Model
- V3 data Types
- XML ITS
- XML Schema / Templates
- CDA vs Messages
- Better support for clinical communications



HL7Guideline Workshop, August 13-14, 2003

HL7 V3 --CDA Documents:

- Human readable
- Match workflow
- Make sense on their own
- Intended to persist in time
 - physically vs messages
 - semantically meaningful into future (cf paper records)



HL7Guideline Workshop, August 13-14, 2003

HL7 V3

–Clinical Document Architecture

- XML
- Templates in XML Schema
 - Proposal --unimplemented
 - openEHR Archetypes can deliver
 - ADL
- CDA Release 2 Proposal
 - Single specification
 - Templates specify levels of structure.
 - full structure employing RIM semantics



HL7Guideline Workshop, August 13-14, 2003

CDA and EHR

- CDA Suitable for use within a DMS
 - Various solutions to authoring
- CDA documents do not constitute an EHR
- ?CDA / SD for guidelines
- CDA aligns closely with openEHR structures
 - transactions / compositions
 - ShARM



HL7Guideline Workshop, August 13-14, 2003

CDA Applications

- *Potential for structured guidelines*
- *Ease of exchange with EHRs*
- IT14/6/6 developing CDA Level 3 specifications for
 - Referral
 - Shared Care
- CDA : EHR + Guidelines + “Communication”



HL7Guideline Workshop, August 13-14, 2003

EHR Developments

- vMR: Simplified from RIM (Pattern)
- OpenEHR
 - Folder,
 - Composition/Document,
 - Section,
 - Entry,
 - Cluster,
 - Element
 - Data types



HL7Guideline Workshop, August 13-14, 2003

Guidelines and Primary Care Environment

- Very high real-time information needs impossible without computerisation
- Constraining work practice demands
 - time
 - economic
 - emotional



HL7Guideline Workshop, August 13-14, 2003

Guidelines and Primary Care

- High unmet real-time information needs
 - Breadth of expectation
 - Narrowing and streamlining of skill base
 - CME further streamlines skills
 - Needs computerisation
- Constraining workflow demands
 - Time
 - Economic
 - Emotional
- Extensive Patient Histories
 - Becoming unmanageable in paper
- Discovery services / Guideline management
 - InfoButton



HL7Guideline Workshop, August 13-14, 2003

Guidelines Requirements for Primary Care

- *Active DSS* in Chronic Disease guidelines must link into EHR
extensive EHR may be less important in acute care.
- Workflow integration
guidelines must be operable in background
- Applicability of guidelines
- Alerts must be appropriate



HL7Guideline Workshop, August 13-14, 2003

Guidelines-- Next steps

- Methodology : HDF
- Scopes areas of needed guideline use
- Detailed requirements
 - Guideline applications
 - Guideline formalisms
 - EHR: vMR / LCD
- Assess HL7 RIM representation.
 - General events
 - Knowledge
- Extend RIM to cover gaps if possible



HL7Guideline Workshop, August 13-14, 2003