AHIMA STANDARDS FACT SHEET

Standards Category: Information Content Standards

Information Content Standards specify the content of information exchanges.

First level information content standards define the structure and organization of content in the electronic message (string of data) or document (structured representation of data). The Health Level Seven (HL7) Reference Information Model (RIM) represents the first level information content standard. The RIM is a pictorial representation of the application domain data organization that identifies the lifecycle of events. RIMs are shared models of data organization between domains and are the models from which all domains create information exchange standards. The RIM expresses the data content (data sets) needed in a specific clinical or administrative context and provides an explicit representation of the semantic and lexical connections that exist between the data elements carried in the fields of HL7 version 3 (v3) messages, HL7 CDA documents and HL7 FHIR resources described below. The RIM is essential to increasing precision and reducing implementation costs.

Second level information content standards define a 'package' of standards (data vocabularies/terminologies/classifications, data types, document structure), for example:

- **HL7 Continuity of Care Document (CCD)** is an eXtensible Markup Language (XML)-based standard to specify the encoding, structure, and semantics of a clinical document for health information exchange. The CCD was a joint effort of HL7 and the American Society for Testing and Materials (ASTM) International. The CCD represents a harmonization of ASTM's Continuity of Care Record (CCR) and HL7's Clinical Document Architecture (CDA).

- **HL7 Clinical Document Architecture (CDA)** is an XML-based description of the document that comprised of the document header – collection of metadata (when it is written, who wrote it, for what organization, which patient it applies to, and the visit/encounter for which it describes the service) and the document body with a structured format (sections, templates, entries) that can be processed by machine; and unstructured text (scanned or word-processed documents).

- **HL7 Fast Healthcare Interoperability Resources (FHIR)** are sets of modular components that are suitable for use in mobile phone apps, cloud communications, Electronic Health Record (EHR)-based data sharing and server communication. FHIR resources share (a) a common way to define and represent content components (data elements), building them from data types that define common reusable patterns of elements; (b) a common set of metadata; (c) a human readable part (narrative).

Resources

Orlova A. Health Information Technology Standards and Systems Interoperability Course. *Boone K. Lecture 7: Information Content Standards.* Johns Hopkins School of Public Health (JHSPH) Opencourseware. Johns Hopkins University. URL: http://ocw.jhsph.edu/index.cfm/go/viewCourse/course/InfStandards/coursePage/index/

Boone K. The CDA™ Book. Springer-Verlag, London. 2011

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ISO Technical Committee 215 Health Informatics (ISO/TC215)

Established in 1998, **International Organization for Standardization, Technical Committee 215, Health Informatics (ISO/TC215**) has over 70 member countries and liaison organizations representing millions of healthcare stakeholders worldwide. **The ISO/TC215 mission** is *standardization in the field of health informatics to facilitate the capture, interchange and use of health-related data, information, and knowledge to support and enable all aspects of the health system.*

The **US delegation** at ISO/TC215 is represented by the **Technical Advisory Group (ISO/TC215 USTAG)** – a committee accredited by American National Standards Institute – that develops US national positions on international standards. Since 2011 AHIMA provides Secretariat to ISO/TC215 and serves as Administrator to the USTAG at ISO/TC215.

ISO/TC215 develops international standards for semantic (shared content), technical (shared infrastructure) and functional (shared rules) interoperability. ISO/TC215 product portfolio contains **over 200 standards** including those under development. Information content standards are part of ISO/TC215 semantic interoperability standards portfolio.

ISO/TC 215 Information Content Standards Examples

(IS – International Standard, TR – Technical Report, TS – Technical Specification)

ISO Number	Title
ISO/IS 11239:2012	Identification of medicinal products (IDMP) -- Data elements and structures for the unique identification and exchange of regulated information on pharmaceutical dose forms, units of presentation, routes of administration and packaging
ISO/IS 13119:2012	Clinical knowledge resources -- Metadata
ISO/TR 13128:2012	Clinical document registry federation
ISO/TS 13972:2015	Detailed clinical models, characteristics and processes
ISO/IS 13940:2015	System of concepts to support continuity of care
ISO/IS 14199:2015	Information models -- Biomedical research integrated domain group (BRIDG) model
ISO/TR 14292	Personal health records -- Definition, scope and context
ISO/TS 19293	Requirements for a record of the dispense of a medicinal product
ISO/TR 20514	Electronic health record -- Definition, scope and context
ISO/IS 20301	Health cards -- General characteristics
ISO/TS 21526	Metadata repository requirements (MetaRep)
ISO/IS 21549	Patient healthcard data
ISO/HL7 IS 21731	HL7 version 3 -- Reference information model, Release 4
ISO/IS 22077	Medical waveform format
ISO/TS 27790:2009	Document registry framework
ISO/HL7 IS 27932	Data Exchange Standards -- HL7 clinical document architecture, Release 2

Resources

ISO/TC215 Standards and Projects Catalog: http://www.ahima.org/~/media/AHIMA/Files/AHIMA-and-Our-Work/ISOTC215StandardsCatalog2017.ashx?la=en
ISO/TC215 Website at ISO: https://www.iso.org/committee/54960.html
ISO/TC215 Website at AHIMA: http://www.ahima.org/about/global?tabid=ISO