



Standard Practice for the Occupational/Environmental Health View of the Electronic Health Record¹

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1. Scope

1.1 This Practice is intended to assemble a logical occupational/environmental health view of the already defined general structure and vocabulary for the Electronic Health Record (EHR) and to suggest the ways in which this view can be used to support employee health assessments and other healthcare delivered at the work site. This view is consistent with the ANSI/ADA Clinical Concept Data Model 2005, which identified the major data entities that will need to be involved. This view would complement other views addressed in other settings of care for the employee and could logically either request other EHR data or deliver to other practitioner requester's record systems portions of occupational/environmental health data that have been recorded at the work site. This practice does not deal with the specific implementation of the content and it also does not either suggest or recommend implementation techniques. Likewise, it does not suggest standards of care. These functions are dealt with in other domains.

2. Referenced Documents

2.1 ASTM Standards:²

- E1239 Practice for Description of Reservation/Registration-Admission, Discharge, Transfer (R-ADT) Systems for Electronic Health Record (EHR) Systems
- E1340 Guide for Rapid Prototyping of Information Systems
- E1384 Practice for Content and Structure of the Electronic Health Record (EHR)
- E1578 Guide for Laboratory Information Management Systems (LIMS)
- E1633 Specification for Coded Values Used in the Electronic Health Record

- E1714 Guide for Properties of a Universal Healthcare Identifier (UHID)
- E1715 Practice for An Object-Oriented Model for Registration, Admitting, Discharge, and Transfer (RADT) Functions in Computer-Based Patient Record Systems
- E1744 Practice for View of Emergency Medical Care in the Electronic Health Record
- E1762 Guide for Electronic Authentication of Health Care Information
- E1869 Guide for Confidentiality, Privacy, Access, and Data Security Principles for Health Information Including Electronic Health Records
- E1986 Guide for Information Access Privileges to Health Information
- E1987 Guide for Individual Rights Regarding Health Information (Withdrawn 2007)³
- E1988 Guide for Training of Persons who have Access to Health Information (Withdrawn 2007)³
- E2017 Guide for Amendments to Health Information
- E2066 Guide for Validation of Laboratory Information Management Systems
- E2084 Specification for Authentication of Healthcare Information Using Digital Signatures (Withdrawn 2009)³
- E2085 Guide on Security Framework for Healthcare Information (Withdrawn 2009)³
- E2086 Guide for Internet and Intranet Healthcare Security (Withdrawn 2009)³
- E2145 Practice for Information Modeling
- E2147 Specification for Audit and Disclosure Logs for Use in Health Information Systems
- E2171 Practice for Rating-Scale Measures Relevant to the Electronic Health Record

2.2 ANSI/IEEE Standards:⁴

- ANSI/IEEE 610.2 Standard Glossary of Computer Applications Terminology
- ANSI/IEEE 610.5 Standard Glossary of Information Management Terminology

¹ This practice is under the jurisdiction of ASTM Committee E31 on Healthcare Informatics and is the direct responsibility of Subcommittee E31.25 on Healthcare Data Management, Security, Confidentiality, and Privacy.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

ANSI/IEEE 610.12 Standard Glossary of Software Engineering Terminology
 ANSI/IEEE 729 Fundamental Terms in Software Engineering
 ANSI/IEEE 830 Software Requirements Specification
 ANSI/IEEE 1058 Software Project Management Plans
 ANSI/IEEE 1062 Recommended Practice for Software Requirements
 ANSI/IEEE 1063 Software User Documentation
 ANSI/IEEE 1073 Framework and Overview
 ANSI/IEEE 1073.2 Application Profile Framework and Overview
 ANSI/IEEE 1073.3.1 Transport Profile
 ANSI/IEEE 1073.4.1 Physical Layer-Cable Connected
 ANSI/IEEE 1074 Standard for Developing Life Cycle Processes
 ANSI/IEEE 1074.1 Guide for Developing Life Cycle Processes
 ANSI/IEEE 1220 Standard for Application and Management of the System Engineering Process
 ANSI/IEEE 1233 Guide to Preparing System Requirements Specifications
 ANSI/IEEE 1320.1 Standard for Conceptual Modeling Language—Syntax and Semantics for IDEF0
 ANSI/IEEE 1320.2 Standard for Conceptual Modeling Language—Syntax and Semantics for IDEF1X97 (IDEF Object)
 ANSI/IEEE 1362 Guide for Information Technology—System Definition—Concept of Operations Document
 ANSI/IEEE 1490 Guide to Project Management Body of Knowledge
 ANSI/IEEE 1498 Trial Use Standard for Information Technology—Software Life Cycle Processes—Software Development: Acquirer—Supplier Agreement
 ANSI/IEEE 12207.0 Standard for Information Technology—Software Life Cycle Processes
 ANSI/IEEE 12207.1 Guide for Information Technology—Software Life Cycle Processes—Life Cycle Data
 ANSI/IEEE 12207.2 Guide for Information Technology—Software Life Cycle Processes—Implementation Considerations
 IEEE P1157.1 Trial Use Standard for Healthcare Data Interchange—Information Model Methods

2.3 ANSI/HL7 Standards:⁴

ANSI/HL7 Interface Standard v2.4
 HL7 Message Development Framework v 3.0 Jan 1997

2.4 ISO Standards:⁴

ISO/IEC TR 9789 Information Technology—Guidelines for the Organization and Representation of Data Elements for Data Interchange—Coding Methods and Principles
 ISO 12200 Computer Applications in Terminology—Machine-Readable Terminology Interchange Format (MARTIF)—Negotiated Interchange
 ISO 12620 Computer Applications in Terminology—Data Categories
 ISO IS 12207 Information Technology-Software Life Cycle Processes

ISO IS 15188 Project Management Guidelines for Terminology Standardization
 ISO WD 15288 System Life Cycle Processes
 ISO 15440 Guide for Life Cycle Processes

2.5 Other Standards:

ANSI X3.172 American National Dictionary for Information Systems
 ANSI/ADA TR 1039 2005 Clinical Content Data Model
 ANSI/ADA 1000.0 Introduction, Model Architecture, and Specification Framework
 ANSI/ADA 1000.1 Individual Identification
 ANSI/ADA 1000.2 Codes and Nomenclature
 ANSI/ADA 1000.3 Individual Characteristics
 ANSI/ADA 1000.4 Population Characteristics
 ANSI/ADA 1000.5 Organization
 ANSI/ADA 1000.6 Location
 ANSI/ADA 1000.7 Communication
 ANSI/ADA 1000.8 Healthcare Event
 ANSI/ADA 1000.9 Health Materiel
 ANSI/ADA 1000.10 Health Services
 ANSI/ADA 1000.11 Health Service Resources
 ANSI/ADA 1000.12 Population Health Facts
 ANSI/ADA 1000.13 Patient Health Facts
 ANSI/ADA 1000.14 Health Condition Diagnosis
 ANSI/ADA 1000.15 Health Service Plan
 ANSI/ADA 1000.16 Patient Health Service
 ANSI/ADA 1000.17 Clinical Investigation
 ANSI/ADA 1000.18 Comments Subject Area
 DICOM Supplement 15 Visible Light Image, Anatomic Frame of Reference, Accession and Specimen for Endoscopy, Microscopy, and Photography
 CEN ENV 1613 Medical Informatics—Messages for the Exchange of Laboratory Information
 CEN ENV 1614 Healthcare Informatics—Structure for Nomenclature, Classification and Coding of Properties in Clinical Laboratory Sciences
 CEN EN 12017 Medical Informatics Vocabulary (MIVoc)
 CEN EN 12264 Categorical Structures of Systems of Concepts—Model for Representation of Semantics (MOSE)
 Internet RFC 1521 N. Borenstein, N Freed MIME [Multi-purpose Internet Mail Extensions] Purpose: Mechanisms for Specifying and Designating the Format of Internet Message Bodies Bellcore Innosoft Sep 1993
 ANSI X12
 CLSI AUTO1-A Laboratory Automation: Specimen Container/Specimen Carrier
 CLSI AUTO2-A Laboratory Automation: Bar codes for Specimen Container Identification
 CLSI AUTO3-A Laboratory Automation: Communications with Automated Clinical Laboratory Systems, Instruments, Devices and Information Systems
 CLSI AUTO4-A Laboratory Automation: Systems Operational Requirements, Characteristics and Information Elements
 CLSI AUTO5-A Laboratory Automation: Electromechanical Interfaces