



Standard Practice for Content and Structure of the Electronic Health Record (EHR)¹

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1. Scope

1.1 This practice covers all types of healthcare services, including those given in ambulatory care, hospitals, nursing homes, skilled nursing facilities, home healthcare, and specialty care environments. They apply both to short term contacts (for example, emergency rooms and emergency medical service units) and long term contacts (primary care physicians with long term patients). The vocabulary aims to encompass the continuum of care through all delivery models.

1.2 This practice has four purposes:

1.2.1 Identify the content and logical structure of an Electronic Health Record (EHR) consistent with currently acknowledged patient record content. The record carries all health related information about a person over time. It may include history and physical, laboratory tests, diagnostic reports, orders and treatments documentation, patient identifying information, legal permissions, and so on.

1.2.2 Explain the relationship of data coming from diverse sources (for example, clinical laboratory information management systems, order entry systems, pharmacy information management systems, dictation systems), and other data in the Electronic Health Record as the primary repository for information from various sources.

1.2.3 Provide a common vocabulary for those developing, purchasing, and implementing EHR systems.

1.2.4 Provide sufficient content from which data extracts can be compiled to create unique setting “views.”

2. Referenced Documents

2.1 ASTM Standards:

E 792 Guide for Selection of a Clinical Laboratory Information Management System²

E 1238 Specification for Transferring Clinical Observations Between Independent Computer Systems²

E 1239 Guide for Description of Reservation/Registration-Admission, Discharge, Transfer (R-ADT) Systems for

Automated Patient Care Information Systems²

E 1381 Specification for Low-Level Protocol to Transfer Messages Between Clinical Instruments and Computer Systems²

E 1394 Specification for Transferring Information Between Clinical Instruments and Computer Systems²

E 1460 Specification for Defining and Sharing Modular Health Knowledge Bases (Arden Syntax for Medical Logic Modules)²

E 1467 Specification for Transferring Digital Neurophysiological Data Between Independent Computer Systems²

E 1633 Specification for the Coded Values Used in the Computer-Based Patient Record²

E 1712 Specification for Representing Clinical Laboratory Test and Analyte Names²

E 1714 Guide for Properties of a Universal Healthcare Identifier²

E 1715 Practice for an Object-Oriented Model for Registration, Admitting, Discharge, and Transfer (RADT) Functions in Computer Based Patient Record Systems²

E 1769 Guide for Properties of Electronic Health Records and Record Systems²

2.2 ISO Standards:³

IS 5218 1977 Information Interchange—Representation of Human Sexes

IS 1000 1981 SI Units and Recommendations for the Use of Their Multiples and of Certain Other Units

IS 2955 1983 Information Processing—Representation of SI and Other Units in Systems with Limited Character Sets

IS 8072 1984 Information Processing Standard—Open System Interconnection Transport Service Definition

IS 8601 1988 Data Elements and Interchange Formats—Information Interchange (Representation of Dates and Times)

IS 6937:1994 Information Technology—Coded Graphic Character Set for Text Communication (Revision of Parts 1 and 2)

IS 10367:1991 Standardized Coded Graphic Character Sets for Use in 8 Bit Codes

¹ This practice is under the jurisdiction of ASTM Committee E31 on Healthcare Informatics and is the direct responsibility of Subcommittee E31.19 on Electronic Health Record Content and Structure.

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² *Annual Book of ASTM Standards*, Vol 14.01.

³ Available from International Organization for Standardization (ISO), 1 rue de Varembe, Case postale 56, CH-1211, Geneva 20, Switzerland.

