



Standard Practice for Defining and Implementing Pharmacotherapy Information Services within the Electronic Health Record (EHR) Environment and Networked Architectures¹

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1. Scope

1.1 This practice applies to the process of defining and documenting the capabilities, logical data sources, and pathways of data exchange regarding pharmacotherapy information services within a given network architecture serving a set of healthcare constituents.

1.2 This practice is not a technical implementation standard but, rather, describes how the implementation methods and techniques can be used to coordinate pharmacotherapy services logically within an electronic health record (EHR) systems environment involving participating organizations and sites connected by a networked communication system.

1.3 This practice covers the content of the nodes and arcs of the resulting logical network involving EHR, pharmacy, and clinical laboratory-capable sites. This practice also considers the various purposes and organizational arrangements for coordinating pharmacotherapy services within the network boundaries and the considerations for connections among external networks.

1.4 This practice refers to other standards for conventions within various data domains, such as pharmacy systems, clinical laboratory information management systems (CLIMS), and EHR systems, and for messaging conventions.

1.5 This practice is intended to outline how integration of pharmacy, CLIMS, and EHR information systems can be undertaken to result in a transparent pharmacotherapy clinical decision support environment, regardless of the underlying implementation architecture, by describing the logical interoperability of information domains as facilitated by information and communications technology (ICT).

1.6 This practice is directed at pharmacists, clinical pharmacologists, clinical laboratorians, information system managers, and information systems vendors for use in planning

and implementing coordinated pharmacotherapy services through effective dialog.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

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 Informatics
- 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
- E1985 Guide for User Authentication and Authorization
- E1986 Guide for Information Access Privileges to Health Information

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.