

Electronic Health Records and Electronic Health Archives: An Archival Examination of the ISO Health Informatics Standards



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I. Motive

93 standards + 30 technical reports of health informatics by the International Organization on Standardization (ISO)

facilitating “capture, interchange and use of health-related data, information, and knowledge to support and enable all aspects of the health system”

also address

electronic health record (EHR)

eArchiving process

Q1: Do these standards reflect what is the focus of the records field??

Q2: Are there any concerns that are critical to the health industry but overlooked by the records field?

- The similarities or differences between what is shaped by these standards and what is theorized and practiced in the records management field

II. Methods

2-step analysis

1st Stage Analysis

2nd Stage Analysis

Expected Outcomes

Data Selection

Most Relevant

- ISO/TS 21547:2010 - Reviewed and Confirmed in 2017 Health informatics -- Security requirements for archiving of electronic health records -- Principles
- ISO/HL7 10781 - Electronic Health Record System Functional Model, Release 2
- ISO 15489-1:2016 Information and documentation -- Records management -- Part 1: Concepts and principles
- ISO 16175-3:2010 Information and documentation -- Principles and functional requirements for records in electronic office environments -- Part 3: Guidelines and functional requirements for records in business systems

● Integrated business process

● Integrated system design

● Streamlined managerial framework

III. Preliminary findings

Conceptual comparison

ISO 15489-1 record(s) **information** created, received and maintained as evidence and as an asset by **an organization or person**, in pursuit of legal obligations or in the transaction of business.

ISO/TS 21547 EHR comprehensive, structured set of clinical, demographic, environmental, social and financial **data and information** in electronic form, documenting the healthcare given to a **single individual**.

At the conceptual level, the definition of record(s) in ISO 15489-1 covers the definition of EHR in ISO/TS 21547.

Major Functionality Comparison

Examples:
ISO 15489-1 **9.4** & ISO 16175-3 **3.1.4 Records classification**
ISO/TS 21547 **3.2.26 Secure classification**

ISO 16175-3 **3.4 Retaining** and disposing of records as required
ISO/TS 21547 10.4.1 The EHR-archive must preserve information(...**retention time**...)

ISO 15489-1 **9.9 Disposition** & ISO 16175-3 **2.4.1 Disposing of records**
ISO/TS 21547 **10.3.6 Deletion of the HER**

The core concerns about functionality are covered in all listed standards.

However, ISO 15489-1 and ISO 16175-3 focus on high-level generalization, while ISO/TS 21547 and ISO/HL7 10781 is specific to the business activities in health industry.

Conclusion

- In the field of record or archival science, standards, policies and regulations can be formulated more specifically. Therefore they can align with the standards for records management in a specific industry in a more relevant, effective and systematic way.
- The result of the 2nd stage analysis could facilitate system integration and professional cooperation.