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Health informatics — Terminological resources —

Part 2: Implementation Capability (TIC)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 215, *Health informatics*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

0.1 Objective

The aim of the ISO 17117 series is to enable health care organizations, vendors (including cloud services and conventional software products), governments and other decision makers to

— understand requirements for implementation of terminology in healthcare systems, and

— describe organization capability needed when using terminological resources.

This document defines the capability of implemented terminological resources based on the information lifecycle. Terminology implementation is assessed by review of each of the following 5 terminological implementation component parts:

— Data design;

— Data capture;

— Data storage;

— Data retrieval;

— Data exchange (interoperability) and re-use.

And reviewed according to the implementation processes and capabilities as defined across 5 areas:

— Terminological resource functionality;

— Tool functionality;

— Workforce capability;

— Governance;

— Conformity to standards.

0.2 Stakeholders and audience

The users of this document include

— health care organizations – to assess product capabilities and plan future directions and purchases;

— vendors (including cloud services and conventional software products) to

  — support implementation of terminological resources in their products,

  — enable semantic interoperability across different systems, and

  — assess product requirements influencing future directions for software development.

— government and other decision makers to identify areas of terminology practice that require improvement or should be included in purchasing or tender arrangements,

— educators and educational organizations to educate the health informatics and healthcare communities on the requirements for terminology implementation, and

— terminological resource developers to assist in defining the services needed to best support their resources.

Health informatics — Terminological resources —

Part 2:
Implementation Capability (TIC)

1 Scope

This document defines the components (benchmarks) of capability of terminological resources implementation in healthcare software products, including electronic health record systems. It is intended that these benchmarks form the basis of a maturity model. The document will support analysis of requirements to meet use cases in the implementation of terminological resources in healthcare.

This document does not specify requirements for any specific terminological resource. It is intended to provide a basis from which requirements for terminological resources capabilities can be specified in the future. The tooling being used can impact the level of maturity reached but is not covered in detail in this document. Terminological resources include code systems of all types, terminologies, classifications, value sets, and value domains.

The impact of tooling (computer–assisted coding, speech recognition, template development) on the capability of the terminological resources is not covered in detail in this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/TS 22287, *Health informatics — Workforce roles and capabilities for terminology and terminology services in healthcare (term workforce)*

ISO/TS 21564, *Health Informatics — Terminology resource map quality measures (MapQual)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
term
word or words corresponding to one or more concepts

Note 1 to entry: Value domains can be enumerated (e.g. Total centimetres NNN) or non-enumerated (e.g. Sex code N).

3.2
code system
organized, managed collection of codes, each of which has associated designations, meanings and in some cases relationships, properties or rules