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Health informatics — Categorial structures of clinical findings in traditional medicine

Part 1: Traditional Chinese, Japanese and Korean medicine

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National foreword

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Health informatics — Categorial structures of clinical findings in traditional medicine —

Part 1: Traditional Chinese, Japanese and Korean medicine

Informatique de santé — Structures catégorielles des recherches cliniques en médecine traditionnelle —

Partie 1: Médecine traditionnelle de l'Asie de l'est

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Foreword

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The committee responsible for this document is ISO/TC 215, *Health informatics*.

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Introduction

In most countries there are many types of traditional medicine that are distinct from the health care system based on biomedicine. In some countries this traditional medicine has been institutionalized; in other countries it may have a significant role in health care as an alternative medicine. One type of traditional medicine is traditional Chinese, traditional Japanese, and traditional Korean medicine (TM-CJK), which has spread from ancient China to other East Asian regions over thousands of years. TM-CJK is now relatively homogenous in terms of theory and practice including: disease classification; diagnostic methods; and treatment modalities such as acupuncture and use of herbs.

As in biomedicine, health care professionals specializing in this clinical discipline use specific terminologies in their clinical records and documentations as well as in their practice, research and education. There will be several standard TM-CJK terminologies used around the world in Electronic Health Record (EHR) systems both in separate systems supporting TM-CJK practice and in systems combining TM-CJK and biomedicine content. Interoperability of health record systems is a core objective of informatics standards; this can be supported by standards for terminologies such as those used in TM-CJK and biomedicine.

This Technical Specification provides categorial structures of clinical findings in TM-CJK for the requirements. An essential requirement for sematic interoperability of TM-CJK health records is a categorial-structure driven terminology system for TM-CJK diagnosis. Although there are many terminological resources in TM-CJK in electronic format and also some International Standard TM-CJK terminologies, there are none that meet the requirements of health informatics such as interoperability between systems and machine readability. However, the ICD-11 Traditional Medicine (TM) chapter and ICTM are being developed by the World Health Organization (WHO) and will meet this criteria with their formal content model which identifies TM diagnostic entities, their properties and value sets.[15] Hence This Technical Specification refers to the ICTM content model.

This Technical Specification describes the core, underlying components of terminological expressions (i.e. the Categorial Structure) of clinical findings in TM-CJK. It is aligned with ISO/TS 22789:2010 *Health informatics — Conceptual framework for patient findings and problems in terminologies*, which deals with the same domain in biomedicine. It specifies a concept system detailing the categories of the domain (clinical findings in TM-CJK) and a domain constraint of sanctioned characteristics, each composed of a semantic link and an applicable characterizing category. An item enclosed by single brackets <> refers to a category of domain or a characterizing category that can be specialized to various concepts as required. An item enclosed within the text by single accolades { } identifies a semantic link.

The Technical Specification does not specify the names of individual TM-CJK concepts in the definitions. However, when it is necessary to give examples with names of concepts in TM-CJK, the WHO International Standard Terminologies on Traditional Medicine in the Western Pacific Region is used.[1] Also current ICD-11 Traditional Medicine chapter(Beta Draft), which is the global reference point, will serve as a repository for examples in the next revision.[15] International Standard Chinese-English Basic Nomenclature of Chinese Medicine of World Federation of Chinese Medicine Societies (WFCMS) was accessible and considerable for the Technical Specification.[13] A future revision of this Technical Specification will incorporate examples from other authorized standards when they are fully established.

When a unique category is introduced and its name is already used in biomedicine, the '-TM' after the name is used to indicate that the term has a different concept in TM-CJK, for example, 'disorder-TM' is a different concept from 'disorder' in the biomedicine field.

Comparison and alignment with ISO/TS 22789:2010 is presented in Annex A. In Annex B, an informative description of Categorial Structures and their implementation in terms of intersection between terminology models and information models is provided.

The building methodology of the categorial structure in this Technical Specification is the one that was defined by CEN in EN 12264 and applied to different domains, from surgical procedures (EN 1828[2]) to nursing care (ISO 18104[3]) and clinical findings of the biomedicine area (ISO/TS 22789).

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The potential uses for this categorial structure are to:

— provide a core model to describe the structure of TM-CJK, and facilitate improved semantic correspondence with information models;

— facilitate the representation of TM-CJK using a standard core model in a manner suitable for computer processing;

— support developers of new terminology systems concerning TM-CJK clinical findings;

— support developers of new detailed content areas of existing terminology systems concerning TM-CJK clinical findings ;

— facilitate the mapping or integration between TM-CJK terminologies and biomedicine terminological systems.

The direct users for this Technical Specification are:

— developers of terminology systems concerning TM-CJK patient findings;

— developers of information systems that require a structured framework of concepts of TM-CJK patient findings to facilitate implementation.

The following will benefit from this Technical Specification;

— informaticians, analysts and epidemiologists who require common models of knowledge to facilitate analysis of current and legacy data from one or more information systems;

— clinicians and coders, to provide greater consistency in structure and organization when entering and retrieving data using one or more terminology systems.

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1 Scope

This Technical Specification defines a categorial structure for clinical findings in terminological systems for Traditional Chinese Medicine, Traditional Japanese Medicine, and Traditional Korean Medicine (TM-CJK). This Technical Specification defines three subcategories: pattern-TM, disorder-TM and sign&symptom-TM. Concept representations within these three categories are used to describe the states of patients in clinical records and communications.

This Technical Specification is not applicable to:

— a comprehensive categorial structure for TM-CJK;

— an exhaustive list of all possible characterizing concepts that could be used to describe clinical findings;

— terms/descriptions for individual TM-CJK concepts;

— a detailed terminology of clinical findings in TM-CJK;

— categorical structure of diagnosis and treatment on clinical findings in TM-CJK.

NOTE This Technical Specification is limited to a subpopulation of clinical findings in traditional medicine. Other types of clinical findings are represented in ISO/TS 22789 although it has not been tested for this purpose.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies

ISO/TS 22789:2010, *Health informatics — Conceptual framework for patient findings and problems in terminologies*

3 Terms and definitions

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

3.1 General

3.1.1
concept
unit of knowledge created by a unique combination of characteristics

[SOURCE: ISO 1087-1:2000, definition 3.2.1]

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