TECHNICAL SPECIFICATION

ISO/TS 22990

First edition
2019-05

Traditional Chinese medicine — Categories of clinical terminological system to support the integration of clinical terms from traditional Chinese medicine and Western medicine

Reference number
ISO/TS 22990:2019(E)

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Published in Switzerland

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Foreword

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This document was prepared by Technical Committee ISO/TC 249, *Traditional Chinese medicine*.

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

The clinical terms used in traditional Chinese medicine (TCM) are distinct from those used in healthcare systems based on Western medicine. Although the SNOMED CT[29] has become more mature and the TCM clinical term framework has already been published, the clinical terms of TCM and Western medicine are used in combination in real medical records, and therefore cannot and should not be completely separated. Specific standards are urgently needed to support the increase of computer applications and electronic communication in healthcare. An encompassing terminological system is required to support a consistent way of indexing, reserving, retrieving and aggregating TCM and Western medicine clinical data. The standardization of TCM clinical terminology (ISO 19465) cannot fully meet the needs of electronic medical record processing for hospitals. The large number of clinical terms cannot be effectively managed without classification. Development of a categorial framework is a fundamental requirement for the development of the terminological system.

The objective of this document is to express a core categorial structure of clinical terms of TCM and Western medicine, based upon existing structures. The development of this document will help existing users to develop a robust logical clinical terminology system.

Traditional Chinese medicine — Categories of clinical terminological system to support the integration of clinical terms from traditional Chinese medicine and Western medicine

1 Scope

This document establishes the core classification framework for the integration of clinical terms from traditional Chinese medicine (TCM) and Western medicine. This structure supports terminology integration in standardized electronic medical records, including professional clinical terms in TCM and Western medicine. Non-technical terms for electronic medical records are also included.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

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

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

3.1
concept
internal conception, general notion or idea of something

Note 1 to entry: Concepts are not necessarily bound to particular languages. They are, however, influenced by the social or cultural background often leading to different categorizations.

[SOURCE: ISO/TS 18876-1:2003, 3.1.3, modified — "internal conception" added, Note 1 to entry added.]

3.2
concept system
set of *concepts* (3.1) structured according to the relations among them

[SOURCE: ISO 1087-1:2000, 3.2.11]

3.3
terminology
structured human and machine-readable representation of clinical *concepts* (3.1) required directly or indirectly to describe health conditions and healthcare activities, and allow their subsequent retrieval or analysis

EXAMPLE This includes the relationship of the terminology to the specifications for organizing, communicating and interpreting such a set of concepts. The use of the term terminology in healthcare implies a terminology that is designed for use in computer systems. The term vocabulary or health or medical language is used to indicate the broader idea of linguistic representation without the specification of computability.

[SOURCE: ISO 18104:2014, 3.1.9, modified — example added, Note 1 to entry removed.]

3.4
terminological system
set of *concepts* (3.1) structured according to the relations among them, each concept being represented by a sign which denotes it

[SOURCE: ISO 18308:2011, 3.50, modified — notes removed.]

3.5
class
description of a set of objects that share the same attributes, operations, methods, behaviour, relationships and semantics

[SOURCE: ISO 14813-5:2010, B.1.25]

3.6
class hierarchy
ordering of classes, in which a subclass is a specialization of its superclass

[SOURCE: ISO/IEC/IEEE 24765:2017, 3.578, modified — Note 1 to entry removed.]

3.7
superclass
class that is one step above another class in a class hierarchy

[SOURCE: ISO/IEC Guide 77-2:2008, 2.22, modified]

3.8
subclass
class that is one step below another class in a class hierarchy

[SOURCE: ISO/IEC Guide 77-2:2008, 2.21, modified]

3.9
traditional Chinese medicine
TCM
medicine that originated in China characterised by holism and treatment based on pattern identification and syndrome differentiation

[SOURCE: ISO/TS 17948:2014, 2.2, modified]

3.10
Western medicine
system of evidence-based healthcare which originated in Western civilization

Note 1 to entry: A system in which medical doctors and other healthcare professionals (such as nurses, pharmacists and therapists) treat symptoms and diseases using drugs, radiation or surgery. Also called allopathic medicine, biomedicine, conventional medicine, mainstream medicine and orthodox medicine.

4 Categorial structures

Categorial structures are critical in building a terminology system suitable for electronic medical records. The 27 categorial structures listed below are the top classes of the integration of TCM and Western medicine clinical terms, which can guide the terminology construction of specific clinical branches. The second and third classes have not been listed in this document. The related categorial structures are described as follows, and the hierarchy is shown in Figure 1.

4.1 Symptom and sign

Hierarchy within a terminology which includes (bodily or mental) phenomenon, circumstance or change of condition arising from and accompanying a disease or other pathological condition not defined as a disease.

4.2 Pattern

Diagnostic conclusion of the pathological changes at a disease stage.

NOTE 1 This diagnostic conclusion is usually reached by a suitable qualified healthcare professional.

NOTE 2 Patterns and syndromes include location, cause and nature of the disease.

NOTE 3 Identification of patterns or syndromes suggests appropriate treatment.

NOTE 4 Patterns and syndromes are specific to the individual.

4.3 Disease

Disorder of structure or function in a human, especially one that produces specific symptoms.

NOTE The disease might represent illnesses which are or are not severe or serious.

4.4 Physiological structure

Organs and tissues which have certain morphological structure, such as skin, vessels, flesh, sinews and bones.

4.5 Functional system

Organs or systems that have no specific form but have physiological functions, such as meridian or triple energizer.

4.6 Medication

Substances applied or administered to human beings or animals for therapeutic, prophylactic or diagnostic purposes or for modification of physiological functions or behaviour.

EXAMPLES Chinese materia medica, pharmaceutical drug.

4.7 Detection indicator

Result of a chemical or physical test which can reveal or assess changes.

NOTE Changes may be revealed in scale measures, biochemical indicators or image indicators.

4.8 Examination objects

Objects including inspection object, listening and smelling object, inquiry object and palpation object which are used in the four examinations of TCM.

EXAMPLES Pulse, tongue picture, sound, complexion.

4.9 Specimen

Sample of tissue, body fluid, food or other substance that is collected or acquired to support the assessment, diagnosis, treatment, mitigation or prevention of a disease, disorder or abnormal physical state, or its symptoms, and the population sample involved in the epidemiological survey.

4.10 Diagnosis

Cognitive process whereby signs, symptoms, test results and other relevant data are evaluated to determine the condition afflicting a patient.

4.11 Therapy

Treatment intended to relieve or heal a disorder.

EXAMPLES Drug therapy, acupuncture, moxibustion therapy, diet therapy, operations and surgical procedures, dietetics, speech pathology, occupational therapy.

4.12 Laboratory procedure

Determination of a single analyte or a combination of values from other determinants or observations that constitute a measure associated with a specimen.

EXAMPLES Respiratory function testing and gastroscopy, pathological examination laboratory operation.

4.13 Medicament processing

Assembly, manufacture or preparation of a medicinal product.

NOTE Includes drug boiling method, taking methods, deployment methods, and all other drug-related methods of operation.

4.14 Health management

Coordinated activities to direct and control personal health risk factors in a healthcare process.

EXAMPLES Registration, follow-up visit.

4.15 Equipment (synonym: health device)

Device used in the assessment, diagnosis, treatment, mitigation or prevention of a disease, disorder or abnormal physical state, or its symptoms.

EXAMPLE Medical electrical equipment.

4.16 Substance

Matter of defined composition that has discrete existence, whose origin may be biological, mineral or chemical.

EXAMPLE Allergen.

4.17 Body substance

Real physical matter of which a person consists.

EXAMPLES Qi, blood and water, secretions, fibre, protein, electrolytes.

4.18 Healthcare record

Health record produced for and used within a healthcare organisation or by a healthcare provider.

NOTE Such records are usually created by a person or persons employed by the healthcare system.

EXAMPLES Outpatient medical record, electronic medical record, health record.

4.19 Theory and experience

Concepts which guide clinical practice in TCM, which have a kind of correlation with disease, principle and method of treatment, and procedure in terms of study or utilization.

4.20 Phrase

Small group of words standing together as a conceptual unit, typically forming a component of a clause.

NOTE Provides a place for grammatical units which are combined by two or more than two words, including those employed in ancient literature and still have significance in the clinical practice of TCM.

4.21 Unit of measurement

Measurable quantity, defined and adopted by convention, with which other quantities of the same dimension are compared in order to express their magnitudes relative to that quantity.

NOTE In TCM, it is used to express the same quantity compared with the size of the definition and the agreement of the specific quantity, and the word used to refer to a person or thing, or the number of action unit.

EXAMPLES Length unit (cun, body cun), qualifier value such as (two) pieces of (ginger), (three) sections of (green onion), and so on.

4.22 Environment and positioning

Type of environment and named locations such as countries, states and regions.

EXAMPLES Lingnan area (south of the Five Ridge area), Bashu (Sichuan province), Europe, South America.

4.23 Physical factor

Factor that can play a role as a mechanism of injury.

EXAMPLES Physical objects and physical forces.

4.24 Organism

Living entity containing sub-hierarchies including, but not limited to, kingdom Animalia, microorganism and kingdom Plantae, which can be used in modelling the cause of diseases.

EXAMPLES *Streptococcus pyogenes*, *Bacillus anthracis*, lichen.

4.25 Special concept

Specification or artefact that should be avoided as it no longer has a meaningful purpose or has been replaced by a better specification or artefact.

4.26 Linkage concept

Concept designed to join together two or more entities or parts indicating the type of relationship between each of those entities.

4.27 Clinical event

Clinical situation considered to occur at a certain time point.

EXAMPLES Outbreak of disease, diagnosis, treatment.

5 Diagram of clinical terminological system of integration of TCM and Western medicine (CTSITCMWM) hierarchical structure

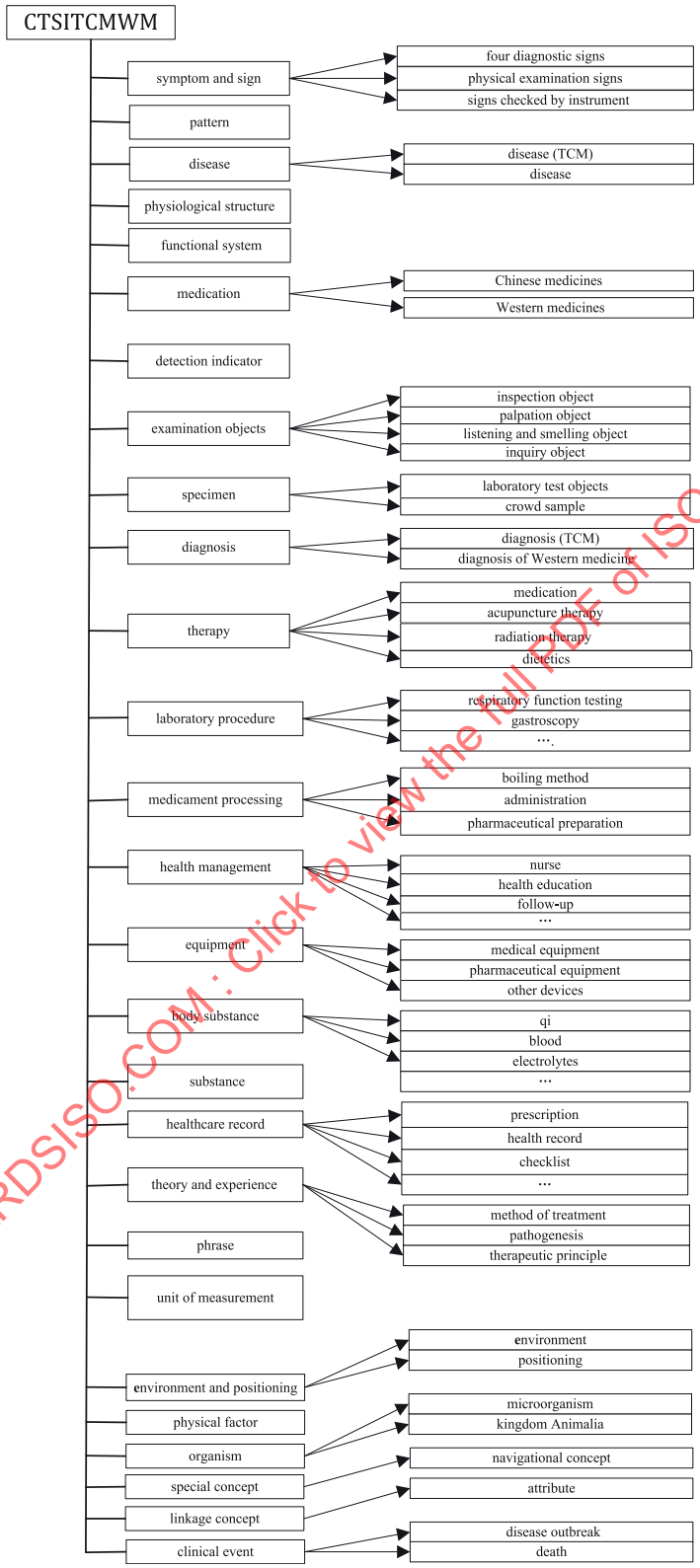

Figure 1 — Diagram of CTSITCMWM hierarchical structure