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Traditional Chinese medicine — Categories of traditional Chinese medicine (TCM) clinical terminological systems

National foreword

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**Traditional Chinese medicine —
Categories of traditional
Chinese medicine (TCM) clinical
terminological systems**

*Médecine traditionnelle chinoise — Catégories de systèmes
terminologiques de médecine traditionnelle chinoise (MTC) clinique*



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Foreword

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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).

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The committee responsible for this document is ISO/TC 249, *Traditional Chinese medicine*.

Introduction

Clinical terms used in traditional Chinese medicine (TCM) healthcare are distinct from those used in health care systems based on biomedicine. The proliferation of computer applications and increase of electronic communication in TCM healthcare call urgently for specific standards. A terminological system is required to support a consistent way of indexing, storing, retrieving and aggregating clinical data of TCM. However, the process of standardization of clinical terminology of TCM is not compatible with the needs. The large number of clinical terms in the TCM system cannot be effectively managed without classification. The development of the category framework is a fundamental part of the terminological system.

The objective of this document is to express a core categorial structure of TCM clinical terms. The development of an International Standard will help existing users to develop a robust logical TCM clinical terminology system.

The potential uses for this categorial structure are as follows:

- support developers of TCM clinical terminology systems (TCMCTS);
- support developers of new terminology systems concerning TCM;
- facilitate the representation of TCM clinical information using a standardized core model in a manner suitable for computer processing;
- facilitate the mapping between TCM terminologies and biomedicine terminological systems.

The target groups for this document are the following:

- developers of TCM clinical terminology systems;
- developers of information systems that require a structured framework of concepts to facilitate implementation;
- specialists who require common models of knowledge to facilitate the 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.

Traditional Chinese medicine — Categories of traditional Chinese medicine (TCM) clinical terminological systems

1 Scope

This document specifies a categorial structure within the subject field of traditional Chinese medicine (TCM) clinical practice. It describes the upper-level categories of TCM clinical terms and the nomenclature of the hierarchical categories. It is applicable only to clinical terminological systems in TCM disciplines, not to a comprehensive categorial structure of TCM, the conceptual definition of the hierarchy categories, and terms for individual TCM concepts.

The following are considered outside the scope of this document:

- comprehensive categories of TCM;
- the conceptual definition of the hierarchy categories.
- terms for individual TCM concepts;
- the terms or categories of Kampo, Korean medicine and other traditional medicines.

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:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 concept

unit of knowledge created by a unique combination of characteristics

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 1087-1:2000, 3.2.1, modified]

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

[SOURCE: ISO 18104:2014, 3.1.9, modified]

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]

3.5 class hierarchy

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

[SOURCE: ISO/IEC/IEEE 24765:2010, 3.412]

3.6 superclass

class that is one step above another class in a class inclusion hierarchy

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

3.7 subclass

class that is one step below another class in a class inclusion hierarchy

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

4 Classification principles of TCMCTS

The following principles should be considered:

4.1 Practicability

The concept and classification of the terms shall be based on the aim of serving the clinical application of TCM. The practicability and convenience during practice shall be taken into consideration. The hierarchical framework of concepts of TCM will be developed. The structure shall be established for the purpose of supporting electric medical records and medical insurance.

4.2 Internality and systematic feature

Originating from the need of the clinical practice of Chinese medicine, all the commonly encountered clinical terms of Chinese medicine shall be covered in the system. Clinical terms shall be sequenced systematically, scientifically and appropriately according to the property and characteristics in clinical practice. One concept shall only exist in one specific hierarchical structure.

4.3 Extendibility

In order to provide conditions for the further expansion of the system, the extendibility shall be considered in advance in the planning stage of the classification system to guarantee the integrality of the existing system when new items are added.

5 Categorical structure of a TCM clinical terminological system (TCMCTS)

5.1 Overview

TCM clinical terminological system (TCMCTS) is a clinical terminology of TCM that provides clinical content and expressivity for clinical documentation and reporting. It can be used to code, retrieve, and analyse clinical data. The terminology is composed of 17 class hierarchies with the objective of representing clinical information across the scope of TCM. Hierarchy content classifies high-level concepts (superclasses) which include

- symptom and sign,
- four examination objects,
- disease and pattern,
- TCM operational approach,
- cause and mechanism of disease,
- theory and experience,
- therapeutic principle and method of treatment,
- Chinese medicinals,
- body system,
- staging and transmission/transmutation,
- TCM internal substance,
- environment or geographical location in TCM,
- TCM equipment and device,
- unit of measurement and qualifier value in TCM,
- linkage,
- medical case record structure,
- phrase.

NOTE See [Annex A](#) for a diagram of the TCMCTS hierarchical structure.

5.2 Symptom and sign

5.2.1 Concepts in this hierarchy represent a (bodily or mental) phenomenon, circumstance or change of condition arising from and accompanying a disease or other pathological condition. Subjective indications or behaviour disorder perceptible to the patient, and the abnormal signs discovered by a doctor, are included.

5.2.2 This hierarchy contains three sub-hierarchies: symptom and sign through four diagnostic methods, symptom and sign through analysing of the physical constitutions of the patients, and symptom and sign through diagnosis with instruments of TCM.

5.2.3 Symptom and sign through the four diagnostic methods includes various clinical manifestations and signs collected by inspection, auscultation and olfaction, inquiring and palpation.

5.2.4 Symptom and sign through analysing the physical constitutions of the patients includes symptoms that reflect the features of the body constitution of the patient.

5.2.5 Symptom and sign through diagnosis with instruments of TCM includes information collected by diagnostic and treatment instruments.

5.3 Examination objects

Examination object concepts represent objects according to four examinations and could be classified as

- inspection object,
- auscultation (listening) and olfaction(smelling) object,
- inquiring (inquiry) object, and
- palpation object.

5.4 Disease and pattern

5.4.1 Overview

The disease and pattern class hierarchy contains two subclasses: a) disease and b) pattern. The concepts in disease represent a condition of being (more or less seriously) out of health, and the symptoms, signs, behaviour and pathological changes are always abnormal. The concepts in pattern describe diagnostic conclusions or conditions of the pathological changes at a certain stage of a disease, including the location, cause, and nature of the diseases as well as the trend of development.

5.4.2 Disease

The concepts under disease can be divided into 13 subclasses in accordance with traditional classification methods: disease of internal medicine, surgical disease, gynaecological disease, paediatric disease, diseases in ophthalmology and ear-nose-throat department, diseases in orthopaedics and traumatology, disease of impediment, flaccidity and tumour, epidemic disease, intoxication, symptomatic disease, infectious disease, parasitic disease and other diseases.[\[6\]](#) [\[7\]](#)

5.4.3 Pattern

The concepts under the pattern subclass are based on the system of differentiation on patterns, which are divided into patterns of cause of disease; patterns of Yin-Yang-Qi-Blood-Fluid-Humour and Phlegm, pattern of Viscera-Bowels and meridians; patterns of six meridians, patterns of Defence-Qi-Nutrient-Blood, patterns of Classical Formula, and other patterns, and then further divide into sub-branches.

5.5 TCM operational approach

TCM operational approach concepts represent activities performed in the provision of healthcare using TCM. The class hierarchy contains three subclass objects: a) health promotion, b) diagnosis, and c) therapy.

5.6 Cause and mechanism of disease

The concepts under the cause and mechanism of disease class can be used to describe the cause or pathogenic factors that break the Yin-Yang balance of the human body and the mechanism by which disease arises and develops, the same as pathogenesis.

5.7 Theory and experience

The concepts of theory and experience represent TCM theory, experiences and theories guiding clinical practice in TCM. They have a kind of correlation with disease, principle and method of treatment, and procedure in terms of study or utilization.

5.8 Therapeutic principle and method of treatment

The concepts of therapeutic principle and method of treatment describe a general rule that shall be followed in treating disease and the specific intervention derived from a principle of treatment according to different diseases and patterns.

5.9 Chinese medicinals

The concepts of Chinese medicinals represent the medicinal substances which are used under the guide of TCM theory, and also refer to those medicinal substances recorded in Chinese *materia medica*. These medicinals include decocting pieces, Chinese patent drugs, formula, and medicated diet.

5.10 Body system

The concepts of body system represent body constituent and morphology. This class hierarchy includes some organs or systems which do not have a specific shape and structure, such as meridian and collateral, and triple energizers.

5.11 Staging and transmission/transmutation

The concepts of staging and transmission/transmutation hierarchy represent the development of a disease, and the transmission from one meridian/channel to another with changes in the manifestations, including location of transmission and nature of transmission of the disease. And it contains such sub-hierarchies as transmission along six meridians, transmission along triple energizers, transmission along Defence-Qi-Nutrient-Blood, and three passes.

5.12 TCM internal substance

Concepts under the internal substance in TCM hierarchy are different from the understanding of substance in Western medicine. It is a general term covering visible and invisible substances in TCM. These internal substances may be normal or abnormal.

EXAMPLE Qi, blood, fluid and humour, spittle, urine, and phlegm.

5.13 Environment or geographic location in TCM

The environment and geographic location in TCM hierarchy includes types of environment in TCM as well as already named geographic locations used in TCM. The class hierarchy contains two subclasses: a) environment, and b) geographic location.

EXAMPLE Lingnan area (South of the Five Ridge area), Bashu (Sichuan province).

5.14 TCM equipment and device

Concepts of the TCM device and equipment hierarchy represent equipment and devices used in diagnosis, treatment, and also in Chinese medicinal processes. This class hierarchy includes three subclasses: a) diagnostic equipment and device, b) treatment equipment and device, and c) Chinese medicinal process equipment.

EXAMPLE Diagnostic equipment such as meridian and collateral determinator, treatment device such as stone needle, splint, cupping jar, acupuncture needle.

5.15 Unit of measurement and qualifier value in TCM

The concepts under the unit of measurement and qualifier value in TCM hierarchy are 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. SI unit (Systeme International unit) can be used primarily and other measurement units used in the field of TCM can be used under consensus.

EXAMPLE Length unit (cun, body cun), qualifier value such as (two) piece of (ginger), (three) section of (green onion), and so on.

5.16 Linkage

The concept of linkage is intended to link two or more other concepts to express the relationship between different concept types and to describe the relationship between TCM concepts.

5.17 Medical case record structure

Medical case record structure is created by a person or persons for the purpose of providing other people with TCM information about diagnosing disease and the treatment process, the continuous recording includes the symptoms, treatment upon pattern differentiation, prescription and drugs, as well as the patient's information, including name, sex, age, occupation, and so on.

5.18 Phrase

Phrase 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.

Annex A (informative)

Diagram of TCMCTS hierarchical structure

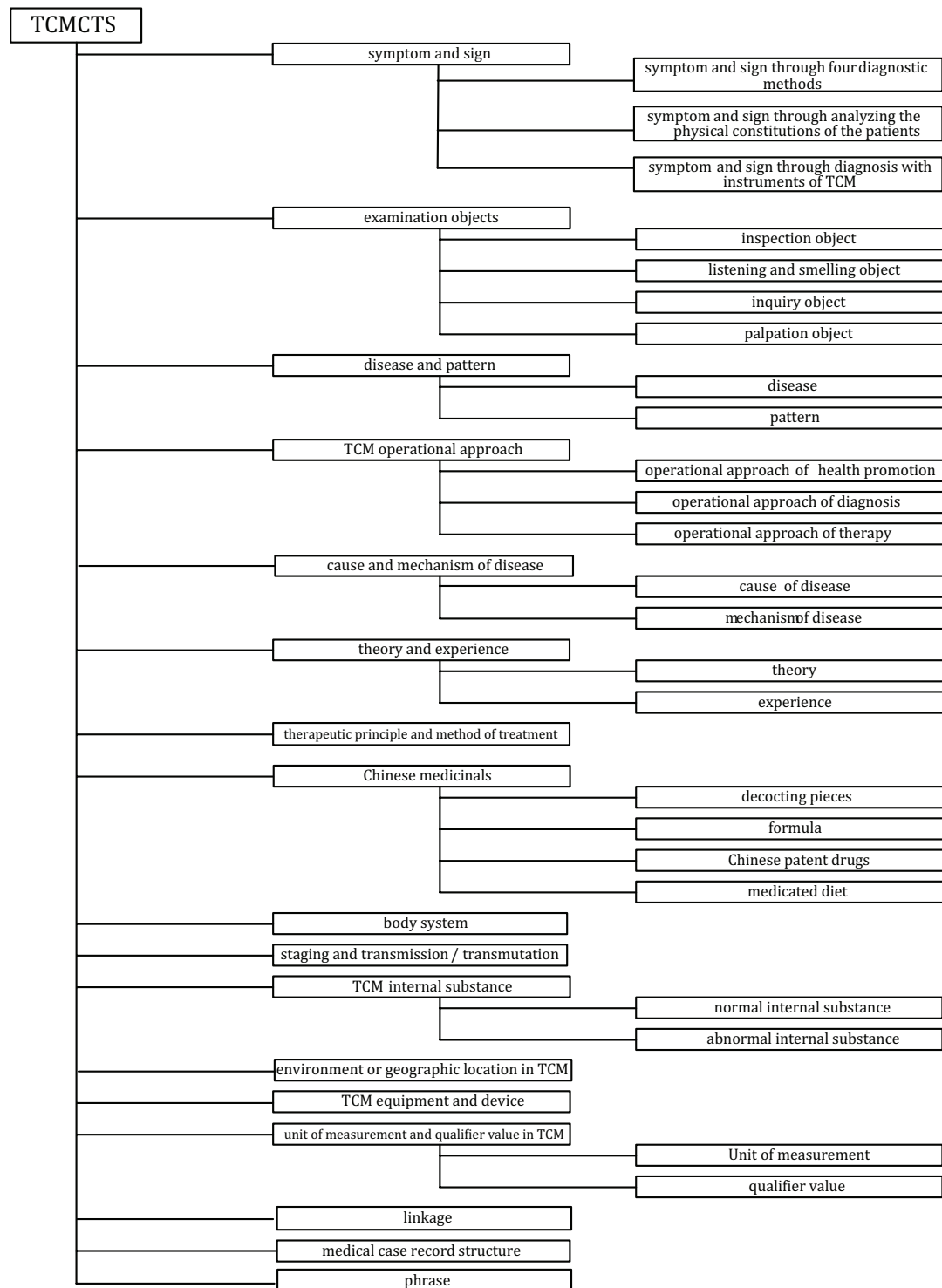


Figure A.1 — Diagram of TCMCTS hierarchical structure

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