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**Health informatics — Categorical  
structure for representation of  
traditional Chinese medicine clinical  
decision support system**

*Informatique de santé — Structure catégorielle pour la  
représentation du système d'aide à la décision clinique en médecine  
traditionnelle chinoise*



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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](http://www.iso.org/directives)).

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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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 215, *Health informatics*, in collaboration with 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](http://www.iso.org/members.html).

## Introduction

The aim of traditional Chinese medicine clinical decision support systems (TCMCDSS) is to help prescribe Chinese materia medica (CMM) and other therapies that fit the patient's personal situation with respect to effectiveness and toxicity of the medicine. The imbalance between supply and demand of medical resources leads to a huge demand for TCMCDSS, through which TCM diagnosis and treatment schemes can be optimized and the effectiveness and safety of primary medical care can be improved. Hence the establishment of TCMCDSS is in line with clinical practice needs and it has the requirements of real application scenarios. However, different TCMCDSS lack a unified semantic information framework, which affects the data exchange and sharing among different institutions and databases.

In conclusion, a unified semantic classification framework will greatly enhance the completeness, accuracy of TCMCDSS, which will establish a solid foundation for the sharing and utilization of the data in the future.



# Health informatics — Categorial structure for representation of traditional Chinese medicine clinical decision support system

## 1 Scope

This document specifies the categorial structure within the field of traditional Chinese medicine clinical decision support system by defining a set of domain constraints of sanctioned characteristics, each composed of a relationship and an applicable information model.

This document is not applicable to Western medicine and Japanese Kampo medicine. It is not applicable to the design and management of artificial intelligence diagnosis and treatment.

## 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.

## 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 General

#### 3.1.1

##### **concept**

unit of knowledge created by a unique combination of characteristics

[SOURCE: ISO 1087:2019, 3.2.7, modified — Notes to entry deleted.]

#### 3.1.2

##### **entity**

concrete or abstract thing of interest

Note 1 to entry: Some information modelling methods use entity for their main information modelling construct, whilst others use entity type.

#### 3.1.3

##### **relationship**

association between two or more entities that is significant for some intended purpose

Note 1 to entry: Can also be known as an association when the information model is based upon object classes.

[SOURCE: ISO 19440:2020, 3.64, modified — Note to entry added.]