



BSI Standards Publication

**Health Informatics — Categorical structures
for the representation of the decocting
process in traditional Chinese medicine**

National foreword

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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).

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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.

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

Traditional Chinese Medicine (TCM) is widely used as a part of complementary and alternative medicine treatments worldwide. Decoction is the most common method for taking TCM medication. It is also the most common extraction method used to manufacture various dosage forms of TCM medication, such as granules or liquids. It is also necessary to represent the categorial structure describing the decocting process involved in the determination of therapeutic equivalence.

Guidelines prescribing decoction in clinical trials and in research are already available. A large number of clinical trials have been conducted to determine the efficacy and efficiency of decoction. However, the heterogeneity of descriptions among trials often causes difficulties in synthesizing the data found in meta-analyses. This is a result of the following three reasons: firstly, an appropriate information structure of decocting process has not yet been formulated; secondly, the peculiar concepts within traditional medicine in the western pacific-rim region that originated in China are not considered sufficient; thirdly, semantic associations between concepts of decoction need to be explicit.

This document defines the minimal categorial structures used by terminological systems in the field of decoction in order to address the aforementioned issues.

The potential benefits of this document include

- supporting developers to provide new terminological systems concerning the decocting process,
- supporting developers to provide new detailed content areas for existing terminological systems on the decocting process,
- facilitating the representation of the decocting process using a standardized core model in a manner suitable for computer processing,
- providing a conceptual framework for the generation of a compositional concept representation of the decocting process,
- facilitating the mapping and improved semantic correspondence between different terminologies by proposing a core specification for the decocting process,
- providing a core model to describe the structure of the decocting process and to facilitate improved semantic correspondence with information models,
- providing a tool for text mining on the decocting process, for database construction and for ancient document processing over a wide area of TCM information collection and processing, and
- providing a new method for researchers to conduct relevant research and implement relevant ideas for the development of TCM disciplines.

The target groups for this document are

- stakeholders, such as companies that offer systems that use electronic categorial structures, by helping these build knowledge databases or by automatic processing of the medical literature,
- EHR or health IT vendors who can be given assistance on prescribing decoction or support in clinical decision making, and
- researchers assisted in performing text mining.

Health Informatics — Categorical structures for the representation of the decocting process in traditional Chinese medicine

1 Scope

This document aims to specify categorical structures in the field of decoction.

This document describes a concept system detailing domain constraints of sanctioned characteristics, each composed of a semantic link and applicable characterizing categories.

The following topics are out of scope of this document:

- models of decoction pieces;
- the specification of categorical structures for the representation of post or manufacturing processes of decoction such as packaging;
- individual pharmaceutical, medicinal products or herbal substances.

This document is applicable to terminological systems/resources.

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 General

3.1.1

decoction

<preparation> liquid medicine prepared by boiling *decoction pieces* (3.1.4) in water or in water with alcohol

3.1.2

decoction

decocting process

decoction process

<method> procedure for making *decoction* (3.1.1), including parameters such as apparatus, temperature, pressure and time

EXAMPLE See 4.2.3.