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



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# Foreword

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This document was prepared by Technical Committee ISO/TC 215, *Health informatics*.

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# 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.