



BSI Standards Publication

Health informatics — Categorial structures for representation of acupuncture

Part 1: Acupuncture points

National foreword

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**Health informatics — Categorical
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acupuncture —**

**Part 1:
Acupuncture points**

*Informatique de santé — Structures catégoriques pour la
représentation de l'acupuncture —*

Partie 1: Points d'acupuncture



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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.

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The committee responsible for this document is Technical Committee ISO/TC 215, *Health informatics*.

A list of all parts in the ISO 16843 series can be found on the ISO website.

Introduction

Acupuncture therapy originated from scrubbing or pressing sensitive areas on the body surface. Wood stick or stone was primarily used as a stimulation tool, then, in the course of improvement, needling was gradually developed. Today, those points or zones are used not only in acupuncture practices but also in other kinds of intervention such as acupressure, moxibustion, cupping, or classic massage. New acupuncture points, such as auricular points and oral acupuncture points, have also been discovered in diverse practice of acupuncture.

The practice of traditional medicine is still the subject of scientific criticism. However, it is well known that there is a certain amount of contemporary scientific papers or reports on the interventions using acupuncture points showing considerable therapeutic effects.

Thus in the last two decades, many clinical trials have been conducted to prove efficacy,^{[10][11]} and a large number of research projects on the mechanism of acupuncture have been undertaken using modern scientific methodology. Among various medical domains and countries/regions, there can be found a lot of synonyms and polysemes^{[3][4][5]} impeding meta-analysis, accurate information exchange, data processing and knowledge acquisition related to the principles and practice of acupuncture.

In order to solve these problems, it is essential to prepare definite concept system^{[2][3][4][5]} for the representation of acupuncture points, with concept harmonization^[4]. The resultant categorial structure will support the development of reliable terminological systems, information models and/or mapping among terminological resources.

It is notable that even in the countries with high GDP, only a small portion of the population can receive modern medicine service at will. Also, the WHO Western Pacific Regional Office reports that a high percentage of the population uses traditional medicine in the nations within the region.^[23] These are the reasons why the WHO is trying to explore ways of collecting statistical data not only depending on modern medicine concepts but also the concepts of traditional medicines.

As expected, the accuracy of statistics is dependent upon consistent and agreed terms and definitions harmonized with the backbone of a concept system.^{[1][2][3][4][5]}

For these two reasons, there is a strong need for common conceptual model regarding acupuncture points.

There are many different medical domains such as modern medicine, traditional Chinese medicine, Ayurveda and Thai medicine, and their concept systems also vary. If the concepts of each medical domain are represented in different conceptual models, it will be difficult to find the common elements among them. It means **mapping** or **semantic correspondence** among terminological resources will be costly and potentially error prone. In turn, such situation causes obstruction of knowledge management and acquisition.

It has been estimated that between 0,5 and 45 million concepts are needed to be adequately described^[5] in acupuncture. There is no intention to specify conceptual models for each as international standards. Instead, the concepts with similarities have been harmonized at a high level in this document.^{[1][2][3][4][5]}

With a categorial structure, the minimum elements for common descriptiveness, exchangeability, accountability, reproducibility, and verification necessary for representation of acupuncture points of various medical domains are defined.

Any specific characteristics needed in a specific medical domain should be specified in the projects or other technical committees and domestic or international organizations, along with their specific values or code systems.

Health informatics — Categorial structures for representation of acupuncture —

Part 1: Acupuncture points

1 Scope

This document specifies the **categorial structure** within the **subject field** of acupuncture, by defining a set of **domain constraints** of **sanctioned characteristics** each composed of a **semantic link** and an applicable **characterizing category** in order to represent the **concept** of acupuncture point.

This document describes **sanctioned characteristics** with **semantic links** and **characterizing categories** for representation of acupuncture points. **Concepts** of acupuncture points are used in clinical practices for applying stimulation such as insertion, pricking, scratching, scrubbing, massaging or pressing with various kinds of needles, moxibustion, acupressure and cupping in various medical domains.

The potential uses for this conceptual framework are the following:

- provide a conceptual framework for the generation of **compositional concept representation** of acupuncture point;
- provide a core model to describe the structure of acupuncture point, and facilitate improved **semantic correspondence** with information models;
- facilitate the **mapping** and **semantic correspondence** between different terminological resources by proposing with a core specification of acupuncture point;
- support developers of new terminological systems concerning acupuncture point;
- support developers of new detailed content areas of existing terminological resources concerning acupuncture point to ensure conformance;
- facilitate the representation of acupuncture point in a manner suitable for computer processing;
- provide the monitoring system for adverse events and adverse reactions;
- provide the characterization of clinical research related to acupuncture point.

The target groups for this document are the following:

- developers of terminology systems acupuncture point;
- developers of information systems that require a structured framework of concepts to facilitate implementation and communication;
- informaticians, analysts and epidemiologists who require common models of knowledge to facilitate 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 terminological resources;
- managers and administrative personnel in providing a benchmark by which to judge terminology and information system solutions: as to whether the potential options will deliver compatibility with legacy data and future proofing to emerging terminology products.