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Health informatics — Categorial structures for representation of acupuncture —

Part 4: Meridian and collateral channels

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

Partie 4: Les méridiens et leurs collatéraux

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Foreword

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

Introduction

Acupuncture therapy is widely practiced as a part of complementary and alternative medicine in many countries, both eastern and western.

A guideline for reporting acupuncture intervention in clinical trial is already provided, and a large number of clinical trials have been conducted to assess the efficiency of acupuncture therapy. However, the descriptions of meridian and collateral, as an acupuncture intervention in clinical reports, tend to be insufficient for the interpretation of heterogeneity among trials, often causing difficulties in synthesizing data in the meta-analysis. This arises from three reasons: firstly, appropriate information structure of meridian and collateral is not formulated; secondly, peculiar concepts within traditional medicine in western pacific-rim region originated in China are not considered sufficient; thirdly, semantic associations between concepts of meridian and collateral need to be explicit.

This document defines the categorial structures in the field of meridian and collateral in order to solve the existing problems.

Health informatics — Categorial structures for representation of acupuncture —

Part 4: Meridian and collateral channels

1 Scope

This document specifies the categorial structure within the subject field of meridian and collateral 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 meridian and collateral.

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 https://www.electropedia.org/

3.1
categorial structure
minimal set of domain constraints for representing concept systems in a subject field

Note 1 to entry: Clause 6 provides further explanation.

3.2
category
division of sets of entities regarded as having particular shared characteristics

EXAMPLE Oral route, subcutaneous route and all other routes share characteristics particular to the category route.

Note 1 to entry: Categories may be more or less general. Where one category is subsumed by another, the IS A relation is asserted to obtain a hierarchy between the more specific or subsumed category and the more general or subsuming category. For example, the parenteral route is more general than the intravenous route.

3.3
characteristic
abstraction of a property of an entity or of a set of entities

EXAMPLE Fever is a characteristic symptom of flu.

Note 1 to entry: Characteristics are used for describing concepts and for differentiating categories

3.4
semantic link
formal representation of a directed associative relation or partitive relation between two concepts

EXAMPLE Affects (with inverse be affected).

Note 1 to entry: This includes all relations except the generic relation.

Note 2 to entry: A semantic link always has an inverse, i.e. another semantic link with the opposite direction.

[SOURCE: ISO 17115:2007, 2.2.3, modified — a new Example has been added and the Note 3 to entry has been deleted.]

3.5
characterizing categories
formal *category* (3.2) whose specialization by a domain constraint is allowed to be used as characterizing concept in a particular context

[SOURCE: ISO 17115:2007, 2.3.3, modified — the example and Note 1 to entry have been deleted.]

4 Characterizing categories

4.1 Meridian and collateral

This is a system of conduits through which qi and blood circulate, connecting the bowels, viscera, extremities, superficial organs and tissues, making the body an organic whole, the same as channels and networks, meridians or channels. See Reference [9].

4.2 Course of the meridian

This is the direction and the route of the meridians. See Reference [9].

4.3 Meridian qi

The qi that flows through the meridians is the same as the collateral qi.

Qi is the basic element that constitutes the cosmos and, through its movements, changes and transformations, produces everything in the world, including the human body and life activities. In the field of traditional medicine, qi refers both to the refined nutritive substance that flows within the human body as well as to its functional activities. See Reference [9].

4.4 Body and orifices

Body and orifices include all tissues and organs, the morphological structure, such as the head, torso and limbs, five zang-organs and six fu-organs, etc. Also skin, vessel, muscle, tendon and bone, etc. (refer to TCM thesauri).

4.5 Physiology functions

Physiologically, the meridian and collateral serve as the pathways for qi and blood to flow and circulate in the body. Pathologically, these transmit pathogenic factors into the body. See ISO/TS 17938:2014, Table 1.

4.6 Viscera and bowels

This is the collective term for internal organs, which are also called zang-organs and fu-organs. See ISO/TS 17938:2014, Table 1.

EXAMPLE Five viscera, which can store and transport nutrients.

4.7 Pathological process-TM

This is a process occurring as a consequence, or the induction, of the clinical finding-TM. See ISO/TS 16277-1:2015, 3.3.3.3.

EXAMPLE Stagnation of meridian qi, derangement of meridian qi.

4.8 Fourteen meridians

This is a collective term for the twelve regular meridians plus the governor and conception vessels. See Reference [9].

4.9 Twelve meridians

A collective term for the three yin meridians and three yang meridians of each hand and foot, which is also the same as the twelve regular meridians. See Reference [9].

4.10 Anatomical landmark

This is a clearly defined point on the body that can be used for defining anthropometric measurements. See ISO 20685:2010, 3.7.

EXAMPLE Tragion, top of head.

5 Semantic links

5.1 Belong to

This specifies a special functionality relation between fourteen meridians and acupuncture points.

Semantic link: between fourteen meridians and acupuncture points.

EXAMPLE Zhongfu (LU1) belongs to lung meridian.

Every fourteen meridians, every terminological phrase complying with this document shall have this semantic link.

5.2 Regulate

This specifies a more refined relationship under the relationship of affect (UMLS), which include positive and negative effects.

Semantic link: between meridian and collateral and physiology functions, between meridian and collateral and pathological process-TM.

5.3 Location of

This specifies the position, site, or region of an entity or the site of a process (UMLS).

Semantic link: between meridian and collateral and anatomical landmark.

Every meridian and collateral complying with this document shall have this semantic link.