

3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply. Only key terms and definitions are provided in this section. Additional background terms and definitions from two normative references: ISO 17115:2007, Health informatics - Vocabulary for terminological systems are provided in Annex A [2] ; and ISO 1087-1:2000, Terminology work - Vocabulary - Part 1: Theory and application provided in Annex B [1].

3.1

acupuncture

acupuncture therapy

insertion of needle into particular area of human body for remedial purposes; pricking, scratching, scrubbing/massage, or pressing on particular area of body surface with needle are also called acupuncture.

EXAMPLES Round-pointed needle is used for massage; spoon needle is used for pressing.

3.2

acupuncture needle

needle used for **acupuncture** (3.1)

EXAMPLES The nine types of classical needles, filiform needle, shear needle, round-pointed needle, spoon needle, lance needle, round-sharp needle, stiletto needle, long needle and big needle; stone needle, round-pointed wood stick.

3.3

acupuncture point

acupoint

particular body surface area used for **acupuncture** (3.1). It is regarded in traditional medicine that life force travels there, then the stimulation to the area causes both the changes of **life force** (3.4) flows and the changes the balance of them.

EXAMPLE 1 In traditional "Chinese medicine", Yongquan (湧泉) means the deepest area in concaved on foot sole.

EXAMPLE 2 In Ayurveda, Kurcha (of foot) means the deepest area in concaved on foot sole.

3.4

life force

one of fundamental belief of traditional philosophy, that the basic element and life-sustaining force that constitutes the universe and, through its movements or changes or transformations, produces everything including human body and life activities. In the domain of traditional medicine, life force refers both to the refined nutritive substances, as well as to its functional activities.

NOTE 1 In traditional medicine, the term of life force tends referring to the multi-aspects; element itself, its functions and activities.

NOTE 2 In traditional medicine, the term of life force tends referring to one of its subcategories.

EXAMPLE 1 In traditional "Chinese medicine", Qi: Qi, Blood^{<TCM>}, Fluid^{<TCM>}. In this context, Fluid^{<TCM>} means body fluid, serous or mucous. Both Blood^{<TCM>} and Fluid^{<TCM>} are not blood or water in modern medicine/science, but they means one of body elements produced from Qi. Also, refer to viscera and bowels (3.8).

EXAMPLE 2 In Ayurveda, Prana; Vata, Pitta, Kapha.

EXAMPLE 3 In traditional Tibetan medicine, rLung.

EXAMPLE 4 In traditional Thai medicine, Lhom, or Lhom Pran.

3.5

life force flow channel

channel

one of fundamental belief of traditional medicine, that ideological channels within/around human body and they form links and a network then also connect to **viscera** and **bowels** (3.8), in which **life force** (3.4) flow through.

EXAMPLE 1 In traditional “Chinese medicine”, Meridians^{<TCM>}, Collaterals^{<TCM>}, Vessels^{<TCM>}, Divergences^{<TCM>}, Cutaneous Regions^{<TCM>} and Sinews^{<TCM>} occasionally talked with them, but it is regarded that Sinews^{<TCM>} are not connected to Viscera^{<TCM>} and Bowels^{<TCM>}.

EXAMPLE 2 In Ayurveda, Nadi, Srotas.

EXAMPLE 3 In traditional Tibetan medicine, Tsa.

EXAMPLE 4 In traditional Thai medicine, Sen, or Sen sib (Sen sip).

NOTE 1 Those **terms** (B.3.4.3) listed above designate **superordinate concept** (B.3.2.13) according to **channel** (3.5), so, there are terms that designate **subordinate concepts** (B.3.2.14), e.g., Lung Meridian (Shǒu Tàiyīn Fèijīng; 手太陰肺經), Large Intestine Meridian (Shǒu Yángmíng Dàchángjīng; 足陽明大腸經), Kidney Meridian (Zú Xiǎoyīn Shènjīng; 足小陰腎經), Conception Vessel (Rènmai; 任脈) and so on, in traditional “Chinese medicine”.

NOTE 2 Vishodara Nadi in Ayurveda.

NOTE 3 Life force flow may be regarded to have normal flow direction along a channel.

3.6

connection via life force flow

one of fundamental belief of traditional medicine, that a preceding **acupuncture points** (3.3), a succeeding **acupuncture points**, a particular location of body, or some of **viscera** and **bowels** (3.8) which are regarded to be strongly connected to certain **acupuncture points** via **channel(s)** (3.5) through **life force** (3.4) flows.

EXAMPLE 1 In traditional “Chinese medicine”; Lung Meridian originates from Middle Energizer^{<TCM>} (Zhōngjiāo; 中焦) and descends to connect with Large Intestine^{<TCM>}. Winding back on itself, it travels along the upper orifice of Stomach^{<TCM>}, crosses the diaphragm and enters Lung^{<TCM>}. Emerging transversely from Lung^{<TCM>}, the meridian descends on the front of upper arm. Reaching the cubital fossa, it continues downward on the radial border of forearm to Cùnkǒu (寸口), the radial artery at the wrist where the pulse is palpated. Passing the thenar eminence, the meridian travels along the radial border and terminates at the radial side of the tip of the thumb (Refer to the figure in C.1).

EXAMPLES 2 In traditional “Chinese medicine”; On both side of Lung Medians, there are respectively eleven acupuncture points. The first point is Zhōngfǔ (中府), the second one is Yúnmén (雲門), the seventh is Lièquē (列缺), the ninth is Tàiyuān (太淵), and the last eleventh is Shǎoshāng (少商). All of those are connected via the meridian, and to a viscus Lung^{<TCM>} and a bowel Middle Energizer^{<TCM>}. Lung Meridian terminates at Shǎoshāng but Qi flows to the next channel, Large Intestine Meridian.

EXAMPLES 3 At Lièquē, Lung Median connects to Conception Vessel. At Tàiyuān, eight life forces converge, they are Qi, Blood^{<TCM>}, Vessel^{<TCM>}, Viscus^{<TCM>}, Bowel^{<TCM>}, Muscle^{<TCM>}, Bone^{<TCM>}, and Marrow^{<TCM>}.

NOTE Such connections are not identified in some acupuncture points, e.g., “extra points” in traditional “Chinese medicine”.

3.7

distinctiveness of life force flow

one of fundamental belief of traditional medicine, that feature of **life force** (3.4) flow in certain **acupuncture points** (3.3).

EXAMPLES 1 In traditional “Chinese medicine”, following points are regarded as where life force flows distinctively; source point (原穴), connecting points (絡穴), transport points (俞穴), alarm points (募穴), cleft points (郄穴), and five transport points (五輸穴) which include well point (井穴), brook point (榮穴), stream point (輸穴), river point (經穴) and sea point (合穴). And also, eight meeting points (八會穴), lower sea points of the six bowels (下合穴), confluence points of the eight vessels (八脈交会穴), crossing points (交会穴). NB. Those terms are not **designators to acupoint** (3.11) but collective terms.

EXAMPLES 2 In traditional “Chinese medicine”, Zhōngfǔ is one of alarm points, Lièquē is one of connecting points and confluence points of the eight vessels. Tàiyuān is one of source point, transport points, and eight meeting points. Shǎoshāng is one of well point.

NOTE Distinctiveness of life flow characterise the action of the acupuncture point.

3.8**viscus and bowel
viscera and bowels**

one of belief of traditional medicine, that the ideological internal organ which has two aspects: one is abstract of physiological functions which consist of some functions of different organs or body systems in modern medicine, and the other is materialistic and anatomical substance.

EXAMPLE In traditional “Chinese medicine”, viscus means the site as an internal organ where Qi and Qi derivatives are formed and stored, and, generally speaking bowel means a part of digestive organs but three bowels, i.e., Triple Energizers^{<TCM>} (Sānjiāo; 三焦) do not correspondent to any anatomical organ.

3.9**microsystem
micro point system
micro acupoint system**

one of belief among new-age “traditional medicine”, that each of body sites project to a certain narrow region, so the remedial stimulation of a particular compartment in the region, i.e. **acupuncture point** (3.3), is available for treatment of the body site.

EXAMPLES Auricular point (system) reported by a French doctor, P.Nogier in 1957; Ear acupuncture in China (GB/T 13734-2008, revision of 1992); Hand point (system) which prevails in Korea.

3.10**affiliation of acupoint
hierarchical relation** (B.3.2.20) **to superordinate concept** (B.3.2.14), as one of **subordinate concepts** (B.3.2.14)

EXAMPLES In traditional “Chinese medicine”, Tàiyuān belongs to Lung Meridian, Lung^{<TCM>} and Middle Energizer^{<TCM>}. The ear lobe 5th area (LO5) in Chinese National Standard belongs to the ear acupuncture system in China.

3.11**designator to acupoint**

term and code that designate(s) **acupuncture point** (3.3) **concept** (B.3.2.1), and is should be given the entry in a terminological resource

EXAMPLE In traditional “Chinese medicine”, the point location where the deepest point in concaved on foot sole is designated by both the term ‘Yǒngquán’ (湧泉) and the code ‘KI 1’ in terminological resource of WHO [6].

NOTE 1 Some points only have whether term or code.

NOTE 2 In clinical practices, anonymous areas are often used for acupuncture therapy. Those are called Ashi point (阿是穴) as a collective word in traditional “Chinese medicine”.

3.12**anatomical landmark**

reference points on body surface used to identify a certain point or area

NOTE Some acupuncture points are equivalent to landmarks of surface anatomy in modern medicine.

3.13**measuring system**

a measuring method for somatometry. In **acupuncture** (3.1), it used to identify a certain point or area with describing the distance from **anatomical landmark** (3.12) to **acupuncture point** (3.3)

EXAMPLES 1 In traditional “Chinese medicine”, proportional bone (skeletal) cun, finger cun, and finger breadth.

EXAMPLES 2 In Ayurveda, anguli, or anguli parimana.

3.14

approach to acupoint

approaching way to reach appropriate area of **acupuncture point** (3.3) with keeping away hard tissues, nerves, or blood vessels

EXAMPLES At Lièquē, obliquely insert needle towards elbow, to the depth from 0.2 to 0.3 cun (refer to 3.13).
At Tàiyuān, perpendicularly insert needle, to the depth from 0.2 to 0.3 cun.
At Shǎoshāng, transversely or flatly insert needle towards forearm, to the depth from 0.2 to 0.3 cun.

NOTE Adequate approach is determined by body position of patient, local posture of the target region, lean of inserting needle to body surface plane, and depth of the point of needle.

3.15

clinical findings at acupoint

findings detected before **acupuncture** (3.1) around the area which may be appropriate for **acupuncture**

EXAMPLE Referred pain, tenderness, pressure pain, swelling, piriform concaved area, trigger point, electric conductivity.

NOTE 1 In order to find suitable point location, clinical findings may be detected with **detecting technique of acupoint** (3.16).

NOTE 2 Findings during or after the stimulation of acupuncture point in an acupuncture therapy is called "elicited response" in Part 2 Needling. And adverse effects and responses is called "adverse event" in Part 2 Needling.

3.16

detecting technique of acupoint

the technique to find appropriate **acupuncture point** (3.3)

EXAMPLE inspection, palpation, and electric conductivity test.

3.17

action of acupoint

therapeutic action(s) of **acupuncture point** (3.3) and its basic mechanism may be also included

EXAMPLE 1 Tàiyuān belongs to the Lung Meridian of Hand, therefore the acupuncture to this acupoint is effective to the problems of diseases of respiratory system. This is called as 疏風 解表 in traditional "Chinese medicine", which means dispersing external Wind Pathogen ^{<TCM>} for relieving exterior pattern/syndrome. This acupoint be used to treat cough and wheeze, combining with Lièquē.

EXAMPLE 2 Tàiyuān is the influential point on pulse and the Vessels ^{<TCM>}, therefore the acupuncture to this acupoint is effective to the problems of diseases of circulatory system. These are called as (i) replenishing Heart ^{<TCM>} and freeing Yáng (益心 通陽), and as (ii) defusing Vessels ^{<TCM>} stasis and relieving Vessels ^{<TCM>} (祛瘀 通脈).

NOTE 1 Acupuncture point may have harmful action, often lethal.

NOTE 2 Many acupuncture points have more than one therapeutic action by itself.

NOTE 3 Combination of several acupuncture points accentuate particular therapeutic action(s).

3.18

applicable therapy

suitable therapies or healing methods to an acupuncture point

EXAMPLE 1 Needling, moxibustion, acupressure, oil massage, aroma therapy; asana, meditation.

EXAMPLE 2 In traditional "Chinese medicine", Wàihuájǎn (外踝尖) is usually inhibited from insertion of needle.

NOTE 1 Different domains of traditional medicine recommend various applicable therapies according to their theories.

NOTE 2 Some acupuncture points are inhibited from needle insertion.

3.19**traditional Chinese medicine****TCM**

in this Technical Specification the term TCM is used in rather a broad sense, that means Chinese medicine originated in ancient China then has prevailed Korea, Vietnam, Japan, and even among Western countries so that various schools and types of “traditional medicine originated in ancient China” would be included.

NOTE Therefore the term of TCM is now a sort of “suitcase word” rather than a polysemous term.

4 Categorical structure for representation of acupuncture point

4.1 Conceptual framework for acupuncture point

This Technical Specification describes a **concept system** (B.3.2.11) detailing a **domain constraint** (A.3.3.2) of potential **sanctioned characteristics** (B.3.2.4) each composed of a **semantic link** (A.3.2.3) and an applicable **characterising category** (A.3.3.3).

In section 4.2, an item enclosed by single angle brackets <> refers to a **characterising category** that can be specialised to various **concepts** (B.3.2.1) as required. An item enclosed within the text by single curly parentheses {} identifies a **semantic link**. The following sections list a set of potential **sanctioned characteristics** that are illustrated in a concept diagram in Figure 1.

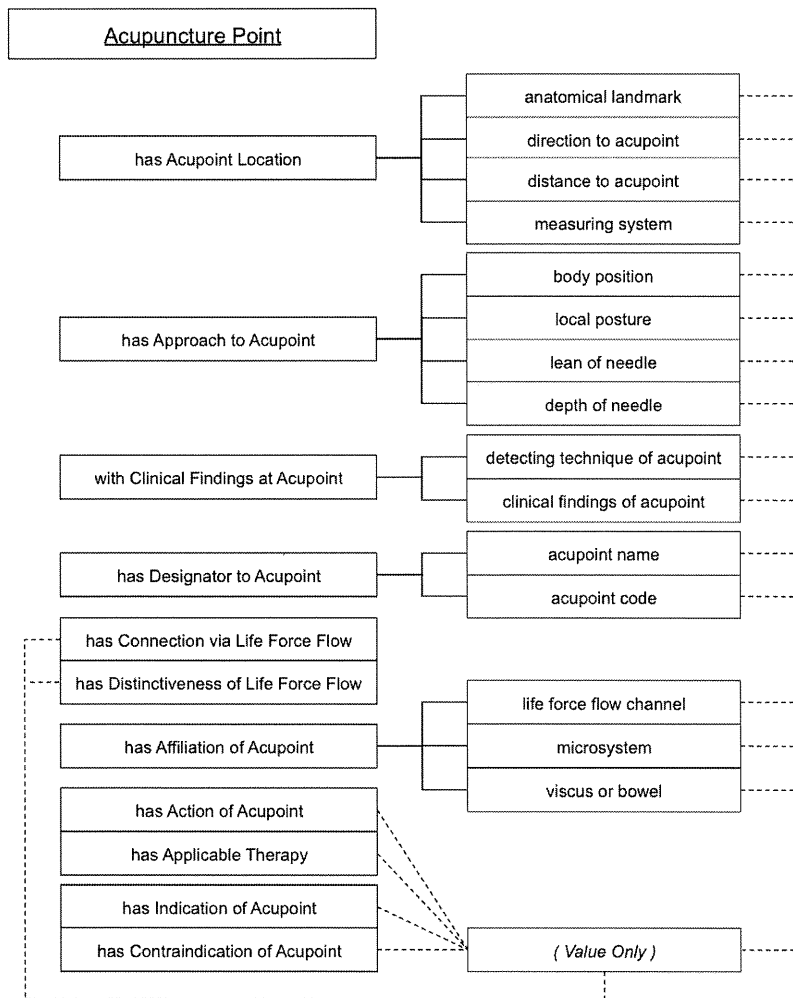


Figure 1 — Conceptual framework for acupuncture point

NOTE Value only refers to a **characterising category** whose specialization is allowed to be used only as a characterizing concept.

4.2 Sanctioned characteristics

4.2.1 Acupoint Location

Formal representation of a **characteristic** composed of the **semantic link** {has Acupoint Location} to the **characterising category** <Acupoint Location> representing an area of body surface, with the **characterising category** <anatomical landmark> representing key area of body surface to find <Acupoint Location>, maybe both with the **characterising category** <direction to acupoint> representing the direction from <anatomical landmark> to <Acupoint Location> and with the distance from <anatomical landmark> to <Acupoint Location>, and identifying a scale with the **characterising category** <measuring system> representing which measuring system is used in a <distance to acupoint > value.

EXAMPLE 1 Tàiyuān has a composite characteristic express by a semantic link {has Acupoint Location} and a characterising concept <between the radical styloid process and the scaphoid bone, in the concave ulnar to the abductor pollicis longus tendon>.

EXAMPLE 2 Zhōngfū has a composite characteristic express by a semantic link {has Acupoint Location} and a characterising concept <at the same level as the first intercostal space>, <lateral to the infraclavicular fossa>, <6 B-cun lateral to the anterior median line>, <body cun>.

NOTE The location of anonymous point or area that stimulus is given shall be intelligibly recorded in clinical record.

4.2.2 Approach to Acupoint

Formal representation of a **characteristic** composed of the **semantic link** {has Approach to Acupoint} to the **characterising category** <Approach to Acupoint> representing an appropriate approach to a certain <Acupoint Location> (4.2.1), with the **characterising category** <body position> representing patient body position, with the **characterising category** <local posture> representing posture of local body region, with the **characterising category** <lean of needle> representing the lean of inserting needle to body surface plane, and with the **characterising category** <depth of needle> representing depth of needle point insertion to reach appropriate stimulation area.

EXAMPLE 1 Yǒngquán has a composite characteristic express by a semantic link {has Approach to Acupoint} and a characterising concept <spine>, <perpendicular>, and <0.5 cun>.

EXAMPLE 2 Tàiyuān has a composite characteristic express by a semantic link {has Approach to Acupoint} and a characterising concept <straighten the wrist and hold the palms upwards>, <perpendicular>, and <0.2 cun>.

NOTE The approach of anonymous point or area that stimulus is given should be recorded in clinical record in necessity.

4.2.3 Clinical Findings at Acupoint

Formal representation of a **characteristic** composed of the **semantic link** {has Clinical Findings at Acupoint} to the **characterising category** <Clinical Findings at Acupoint> representing the clinical findings appeared or detected at <Acupoint Location> (4.2.1) often with <detecting technique of acupoint>, representing **clinical findings at acupoint** (3.15) if necessary with **detecting technique of acupoint** (3.16).

EXAMPLE "Point or area on body over the medial margin of Tibia" has a composite characteristic express by a semantic link {has Clinical Findings of Acupoint} and a characterising concept <pressure pain>. N.B. This is also an example for an anonymous acupoint.

NOTE The clinical findings a/o detecting technique for localization of anonymous point or area that stimulus is given shall be recorded in clinical record.

4.2.4 Designator to Acupoint

Formal representation of a potential **characteristic** composed of the **semantic link** {has Designator to Acupoint} to the **characterising category** including the <Acupoint Name> and/or <Acupoint Code>, that designates a certain **acupuncture point** (3.3) **concept** (B.3.2.1).

EXAMPLE Tàiyuān [as concept] has a composite characteristic express by a semantic link {has Designator to Acupoint} and a characterising concept <Taiyuan> [as name], <太淵>, <太渊> and <LU9>.

4.2.5 Connection via Life Force Flow

Formal representation of a potential **characteristic** composed of the **semantic link** {has Connection via Life Force Flow} to the **characterising category** <Connection via Life Force Flow> representing the adjacent site(s) of the **life force** (3.4) flow at a certain **acupuncture point** (3.3), those sites includes **acupuncture point, channel** (3.5), or **viscus or bowel** (3.8).

EXAMPLE Tàiyuān has a composite characteristic express by a semantic link {has Connection via Life Force Flow} and a characterising concept <Jingqú (經渠)>, <Yúji (魚際)>, <Lung^{<TCM>}>, <Middle Energizer^{<TCM>}>.

4.2.6 Distinctiveness of Life Force Flow

Formal representation of a potential **characteristic** composed of the **semantic link** {has Distinctiveness of Life Force Flow} to the **characterising category** <Distinctiveness of Life Force Flow> representing the feature of **life force** (3.4) flow at a certain **acupuncture point** (3.3).

EXAMPLE 1 Tàiyuān has a composite characteristic express by a semantic link {has Distinctiveness of Life Force Flow} and a characterising concept <Source point>, <Transport point>, and <Eight meeting point>.

4.2.7 Affiliation of Acupoint

Formal representation of a potential **characteristic** composed of the **semantic link** {has Affiliation of Acupoint} to the **characterising category** <Affiliation of Acupoint> including <Channel>, <Microsystem>, or <Viscus or Bowel> representing which channel affiliation an **acupuncture point** (3.3) belongs to.

EXAMPLE 1 Tàiyuān has a composite characteristic express by a semantic link {has Affiliation of Acupoint} and a characterising concept <Lung Meridian>, <Lung^{<TCM>}> and <Middle Energizer^{<TCM>}>.

EXAMPLE 2 LO5, i.e., the ear lobe 5th area, has a composite characteristic express by a semantic link {has Affiliation of Acupoint} and a characterising concept <ear acupuncture>.

4.2.8 Action of Acupoint

Formal representation of a potential **characteristic** composed of the **semantic link** {has Action of Acupoint} to the **characterising category** <Action of Acupoint> representing therapeutic **action of acupoint** (3.17) when the adequate therapy is applied to an **acupuncture point** (3.3).

EXAMPLE Tàiyuān has a composite characteristic express by a semantic link {has Action of Acupoint} and a characterising concept <dispersing external Wind^{<TCM>} pathogen^{<TCM>} for relieving exterior pattern/syndrome>, <replenishing Heart^{<TCM>} and freeing Yáng>, and <defusing Vessels^{<TCM>} stasis and relieving Vessels^{<TCM>}>.

4.2.9 Applicable Therapy

Formal representation of a potential **characteristic** composed of the **semantic link** {has Applicable Therapy} to the **characterising category** <Applicable Therapy> representing **applicable therapy** (3.18) to an **acupuncture point** (3.3).

EXAMPLE 1 Tàiyuān has a composite characteristic express by a semantic link {has Applicable Therapy} and a characterising concept <needling>, <moxibustion>, and <acupressure>.

EXAMPLE 2 Wàihuájǎn (外踝尖) has a composite characteristic express by a semantic link {has Applicable Therapy} and a characterising concept <inhibited from insertion of needle>.

4.2.10 Indication of Acupoint

Formal representation of a potential **characteristic** composed of the **semantic link** {has Indication of Acupoint} to the **characterising category** <Indication of Acupoint> representing the indication of acupuncture therapy of a certain **acupuncture point** (3.3).

EXAMPLE Tàiyuān has a composite characteristic express by a semantic link {has Indication of Acupoint} and a characterising concept <hot palm>, <feeling of weakness and pain in wrist>, <cough>, <wheeze>, <nausea> <heart pain>, and so on.

4.2.11 Contraindication of Acupoint

Formal representation of a potential **characteristic** composed of the **semantic link** {has Contraindication of Acupoint} to the **characterising category** <Contraindication of Acupoint> representing the contraindication of acupuncture therapy of a certain **acupuncture point** (3.3).

EXAMPLE Shéncōng (神聰) has a composite characteristic express by a semantic link {has Contraindication of Acupoint} and a characterising concept <child>.

5 Conformity to the technical specification

Within the scope of this Technical specification, as defined in 1.1:

5.1 General

An acupuncture point (3.1) description claiming conformance to the present Technical specification shall describe concepts that are defined in terminological resources which have entries to acupuncture points and that clinical records or reports those describe any clinical information concerning the descriptions of acupuncture point(s) and its/those function(s).

5.2 Identifying point location a/o a designator

An acupuncture point (3.1) description claiming conformance to the present Technical specification shall describe whether point location (4.2.1 Acupoint Location) or a designator to point (4.2.4 Designator to Acupoint). In a clinical procedure, point location may be slightly out of ordinary position, which a designator indicates. In such cases, both designator to point (4.2.4 Designator to Acupoint) and point location (4.2.1 Acupoint Location) shall be described in clinical records and in scientific papers.

5.3 Identifying approach to point

An acupuncture point (3.1) description claiming conformance to the present Technical specification should describe the approaching to an acupuncture point (4.2.2 Approach to Acupoint) as necessary. The necessity depends on the purpose of a terminological resource, on clinical situation, or on research method of scientific paper.

5.4 Identifying detecting manner as the reason for point location

An acupuncture point (3.1) description claiming conformance to the present Technical specification should describe the detecting manner of acupuncture point (4.2.3 Clinical Findings at Acupoint) as necessary. The necessity depends on the purpose of a terminological resource, on clinical situation, or on research method of scientific paper.

5.5 Identifying life force flow related descriptions

An acupuncture point (3.1) description claiming conformance to the present Technical specification may describe connection via life force flow (4.2.5 Connection via Life Force Flow), distinctiveness of life force flow (4.3.6 Distinctiveness of Life Force Flow), and affiliation (4.3.7 Affiliation of Acupoint) in terminological resources, as the necessity depending both on the domain of concept system and on the purpose of a terminological resource.

5.6 Identifying action and indication/contraindication

An acupuncture point (3.1) description that claiming conformance to the present Technical specification should describe a medicinal action of acupuncture point (4.2.8 Action of Acupoint), indication of acupuncture point (4.2.10 Indication of Acupoint), and contraindication of acupuncture point (4.2.11 Contraindication of Acupoint) in terminological resources, as the necessity depending on the purpose of a terminological resource.

5.7 Defining/Identifying applicable/applied therapy

An acupuncture point (3.1) description claiming conformance to the present Technical specification shall describe the applicable therapy of acupuncture point (4.2.9 Applicable Therapy) as necessary. The necessity depends on the purpose of a terminological resource, on clinical situation, or on research method of scientific paper.

Annex A (normative)

Selected definitions from ISO 17115

The following terms and definitions are selected from ISO 17115. They are included here as background to the key terms and definitions in Clause 3 of this International Standard. The numbering in this Annex reflects the numbering in ISO 17115, for consistency.

A.1 Formal representation of characteristics

A.2.2.1

composite characteristic
qualifier

representation of a **characteristic** (B.3.2.4)

EXAMPLE hasCause Bacteria; Location = LeftUpperLobeOfLung

NOTE Typically expressed by a **semantic link** (A.2.2.3) and a **characterising concept** (A.2.2.2)

NOTE Can be compared to an attribute-value pair in a **compositional system** (A.2.5.2)

NOTE A qualifier often denotes **characteristics** with a small simple **characterizing generic concept** (A.2.3.3), such as laterality (left or right), or severity (low, moderate, high).

A.2.2.2

characterizing concept
concept (B.3.2.1) that is referenced by a **semantic link** (A.2.2.3) in a **composite characteristic** (A.2.2.1)

EXAMPLES "Bacterium" in the construct "Disease that hasCause Bacterium"; "Yellow" in the construct "SkinLesion that hasColor Yellow".

A.2.2.3

semantic link

formal representation of a directed **associative relation** (B.3.2.23) or **partitive relation** (B.3.2.22) between two **concepts** (B.3.2.1),

EXAMPLES hasLocation (with inverse isLocationOf); isCauseOf (with inverse hasCause)

NOTE This includes all relations except the **generic relation** (B.3.2.21).

NOTE A semantic link always has an inverse, i.e. another semantic link with the opposite direction.

NOTE A semantic link can be part of a **composite characteristic** (A.2.2.1) where it describes the role of the **characterizing concept** (A.2.2.2). Similarly, it defines the role of a **characterizing generic concept** (A.2.3.3) in a sanctioned **characteristic** (B.3.2.4).

A.2 Sanctioned specialization

A.2.3.1

sanctioned characteristic
formal representation of a **type of characteristic** (B.3.2.5)

EXAMPLE performedUsing <INSTRUMENT>; hasLocation <BodyPartOrImplantedDevice>.

EXAMPLE "CauseOfInflammation canBe set{ bacteria, virus, parasite, autoimmune, chemical, physical }", where "canBe" is the **semantic link** (A.2.2.3), and "set{ bacteria, virus, parasite, autoimmune, chemical, physical }" is the **characterizing generic concept** (A.2.3.3)

NOTE A sanctioned characteristic is typically made up of a combination of a semantic link and a characterizing generic concept, and can be used in **domain constraints** (A.2.3.2).

A.2.3.2

domain constraint

sanction rule prescribing the set of **sanctioned characteristics** (A.2.3.1) that are valid to **specialize** (A.2.1.1) a **concept** (B.3.2.1) in a certain **subject field** (B.3.1.2)

EXAMPLE "Infection possibly hasLocation SkeletalStructure" describes that an infection in a certain context can be located in a structure that is a kind of skeletal structure

NOTE The rule describes the set of sanctioned **characteristics** (B.3.2.4) by combining the **semantic link** (A.2.2.3) and the **characterizing generic concept** (A.2.3.3) it links to, possibly by enumeration of the concepts in the characterizing generic concept

NOTE Different levels of sanctioning are possible (e.g. conceivable, sensible, normal, usuallyInTheContextOf, necessary).

A.2.3.3

characterizing generic concept

characterizing category

value domain

formal category (A.2.5.3) whose specialisation by a **domain constraint** (A.2.3.2) is allowed to be used as **characterizing concept** (A.2.2.2) in a particular context

EXAMPLE <INFECTIOUS_ORGANISM> = {bacterium, virus, parasite}, in the context of "Infection that hasCause INFECTIOUS_ORGANISM".

NOTE The context includes a **superordinate concept** (B.3.2.13) and a **semantic link** (A.2.2.3)

A.3 Formal concept representation

A.2.4.1

compositional concept representation

intentional definition (B.3.3.2) of a **concept** (B.3.2.1) using as **delimiting characteristics** (B.3.2.7) one or more **composite characteristics** (A.2.2.1)

NOTE This allows inference and subsumption within a **compositional system** (A.2.5.2). It is usually expressed in a formalism, such as description logic.

A.2.4.2

axiomatic concept representation

axiom concept representation present in a **formal system** (A.2.5.1) without a **formal definition** (A.2.4.3)

EXAMPLES Liver; Incision act; Pain

NOTE This often represents a "natural kind" from the perspective of a particular terminology system; i.e. something that "just exists". It may have a definition or description outside the system but by choice, this is not represented in the system.

A.2.4.3

formal definition

definition within a **formal system** (A.2.5.1)

NOTE This can be done by a **compositional concept representation** (A.2.4.1) or a formal **extensional definition** (B.3.3.3)

NOTE It is usually automatically processable and governed by explicit rules

A.2.4.4

concept name

canonical expression

term (B.3.4.3) which uniquely designates a **concept** (B.3.2.1) within a **concept system** (B.3.2.11)

EXAMPLE Machine readable: <Inflammation that <hasCause Bacteria hasLocation Lung>> (with compositional characteristics sorted alphabetically after semantic link) instead of <pulmonaryInfection that hasCause Bacteria>

EXAMPLE General language: Inflammation that has cause bacteria and has location lung (with compositional characteristics sorted alphabetically after semantic link) instead of pulmonary infection that has cause bacteria.

NOTE It is preferred expression to represent a **concept** (B.3.2.1) in a given terminology system

NOTE It is unique within the system unambiguous

A.2.4.5

categorial structure

minimal set of **domain constraints** (A.2.3.2) for representing **concepts systems** (B.3.2.11) in a **subject field** (B.3.1.2).

A.2.4.6

precoordinated concept representation

compositional concept representation (A.2.4.1) within a **formal system** (A.2.5.1), with an equivalent single unique identifier

EXAMPLE Problem=Fracture that hasLocation Femur. This is an example of how a precoordinated concept is represented

NOTE The identifier (code, term etc) may be within or outside the terminology system in question.

A.2.4.7

post-coordinated concept representation

compositional concept representation (A.2.4.1) using more than one **concept** (B.3.2.1) from one or many **formal systems** (A.2.5.1), combined using mechanisms within or outside the formal systems

EXAMPLE Problem.Main = Fracture, Problem.Location = Femur within a template for a problem description

NOTE Combining concepts from disparate terminologies can cause problems with overlapping and/or conflicting concepts. Typically, the mechanisms for making **compositional concept representations** (A.2.4.1) are specified in an information model (e.g. as templates for a certain type of concept).

A.4 Terminology and information models, concept systems

A.2.5.1

formal [concept representation] system

set of machine processable definitions in a **subject field** (B.3.1.2)

A.2.5.2

compositional system

system that supports the creation of **compositional concept representations** (A.2.4.1)

A.2.5.3

formal category

generic concept (B.2.1.4) represented by a **formal definition** (A.2.4.3)

NOTE This implies that the generic concept's **extension** (B.3.2.8) can be determined algorithmically and includes extensionally defined **concepts** (B.3.2.1) and formal **intensional definitions** (B.3.3.2).

A.5 Specified concepts

A.2.6.1

mapping

assigning an element in one set to an element in another set through **semantic correspondence** (A.2.6.2)

NOTE It is the relation with the best semantic correspondence between an element in one set and an element in another set

A.2.6.2

semantic correspondence

measure of similarity between two concepts

NOTE The opposite semantic distance

A.2.6.3

instance of a concept

member of the **extension** (B.3.2.8) of a **concept** (B.3.2.1)

A.2.6.4

focus concept representation

specified representation of the **concept** (B.3.2.1) of interest within a **formal system** (A.2.5.1)

EXAMPLE "Moderately severe inflammation caused by pneumococci located in the upper lobe of the left lung, ascertained by plain film pulmonary X-ray and sputum culture" in the context of a diagnosis with confirmatory evidence.

NOTE It including context information, enabling independent use

A.2.6.5

generic relation

subtype relation

relation between two **concepts** (B.3.2.1) where the **intension** (B.3.2.9) of one of the concepts includes that of the other concept and at least one additional **delimiting characteristic** (B.3.2.7)

[ISO 1087-1:2000, A.3.2.21]

NOTE All individuals in the **extension** (B.3.2.8) of the second are included in the extension of the first.

EXAMPLE A generic relation exists between the concepts 'internal organ' and 'heart', 'surgical deed' and 'appendectomy', 'inflammatory disease' and 'pericarditis'.

A.6 Terminological systems

A.2.7.1

classification

exhaustive set of mutually exclusive **categories** (A.2.1.4) to aggregate data at a pre-prescribed **level of specialization** (A.2.1.3) for a specific purpose

EXAMPLE ICD 10

A.2.7.2

coding scheme

collection of rules that maps the elements in one set, the "coded set" onto the elements in a second set "the code set"

[ISO 2382-4]

NOTE The two sets are not part of the coding scheme.

A.2.7.3**coding system**

combination of a set of **concepts** (B.3.2.1) [coded concepts], a set of code values, and at least one **coding scheme** (A.2.7.2) mapping code values to coded concepts

NOTE Coded concepts are typically represented by **terms** (A3.4.3), but can have other representation. Code values are typically numeric or alphanumeric.

A.2.7.4**reference terminology**

set of atomic level designations structured to support representations of both simple and compositional concepts independent of human language (within machine)

NOTE Reference terminology is designed to uniquely represent **concepts** (A.3.2.1)

NOTE The terminology lists the concepts and specifies their structure, relationships and, if present, their systematic and **formal definitions** (A.2.4.3).

A.2.7.5**clinical terminology**

terminology required directly or indirectly to describe health conditions and healthcare activities

NOTE Health conditions include symptoms, complaints, illness, diseases, disorders etc.

NOTE It is used in, for example, medical records, clinical communication, and medical science.

Annex B **(normative)**

Selected definitions from ISO 1087-1:2000

The following terms and definitions are selected from ISO 1087-1:2000. They are included here as background to the key terms and definitions in Clause 3 of this International Standard. The numbering in this Annex reflects the numbering in ISO 1087-1:2000, for consistency.

B.1 Language and reality

B.3.1.1

object

anything perceivable or conceivable

NOTE Objects may be material (e.g. an engine, a sheet of paper, a diamond), immaterial (e.g. conversion ratio, a project plan) or imagined (e.g. a unicorn).

B.3.1.2

subject field

domain

field of special knowledge

NOTE The borderlines of a subject field are defined from a purpose-related point of view.

B.2 Concept

B.3.2.1

concept

unit of knowledge created by a unique combination of **characteristics** (B.3.2.4)

NOTE Concepts are not necessarily bound to particular languages. They are, however, influenced by the social or cultural background which often leads to different categorizations.

B.3.2.2

individual concept

concept (B.3.2.1) which corresponds to only one **object** (B.3.1.1)

NOTE 1 Examples of individual concepts are 'Saturn', 'the Eiffel Tower'.

NOTE 2 Individual concepts are usually represented by **appellations** (B.3.4.2).

B.3.2.3

general concept

concept (B.3.2.1) which corresponds to two or more **objects** (B.3.1.1) which form a group by reason of common properties

NOTE Examples of general concepts are 'planet', 'tower'.

B.3.2.4

characteristic

abstraction of a property of an **object** (B.3.1.1) or of a set of objects

NOTE Characteristics are used for describing **concepts** (B.3.2.1).

B.3.2.5**type of characteristics**

category of **characteristics** (B.3.2.4) which serves as the criterion of subdivision when establishing **concept systems** (B.3.2.11)

NOTE The type of characteristics colour embraces **characteristics** (B.3.2.4) being red, blue, green, etc. The type of characteristics material embraces characteristics made of wood, metal, etc.

B.3.2.6**essential characteristic**

characteristic (B.3.2.4) which is indispensable to understanding a **concept** (B.3.2.1)

B.3.2.7**delimiting characteristic**

essential characteristic (B.3.2.6) used for distinguishing a **concept** (B.3.2.1) from related concepts

NOTE The delimiting characteristic support for the back may be used for distinguishing the **concepts** (B.3.2.1) 'stool' and 'chair'.

B.3.2.8**extension**

totality of **objects** (B.3.1.1) to which a **concept** (B.3.2.1) corresponds

B.3.2.9**intension**

set of **characteristics** (B.3.2.4) which makes up the **concept** (B.3.2.1)

B.3.2.10**concept field**

unstructured set of thematically related **concepts** (B.3.2.1)

NOTE Concept fields may be used as a starting point for establishing **concept systems** (B.3.2.11).

B.3.2.11**concept system**

system of concepts

set of **concepts** (B.3.2.1) structured according to the relations among them

B.3.2.12**concept diagram**

graphic representation of a **concept system** (B.3.2.11)

B.3.2.13**superordinate concept**

broader concept

concept (B.3.2.1) which is either a **generic concept** (B.3.2.15) or a **comprehensive concept** (B.3.2.17)

B.3.2.14**subordinate concept**

narrower concept

concept (B.3.2.1) which is either a **specific concept** (B.3.2.16) or a **partitive concept** (B.3.2.18)

B.3.2.15**generic concept**

concept (B.3.2.1) in a **generic relation** (B.3.2.21) having the narrower **intension** (B.3.2.9)

B.3.2.16**specific concept**

concept (B.3.2.1) in a **generic relation** (B.3.2.21) having the broader **intension** (B.3.2.9)

B.3.2.17

comprehensive concept

concept (B.3.2.1) in a **partitive relation** (B.3.2.22) viewed as the whole

B.3.2.18

partitive concept

concept (B.3.2.1) in a **partitive relation** (B.3.2.22) viewed as one of the parts making up the whole

B.3.2.19

coordinate concept

subordinate concept (B.3.2.14) having the same nearest **superordinate concept** (B.3.2.13) and same criterion of subdivision as some other **concept** (B.3.2.1) in a given **concept system** (B.3.2.11)

B.3.2.20

hierarchical relation

relation between two **concepts** (B.3.2.1) which may be either a **generic relation** (B.3.2.21) or a **partitive relation** (B.3.2.22)

B.3.2.21

generic relation

genus-species relation

relation between two **concepts** (B.3.2.1) where the **intension** (B.3.2.9) of one of the concepts includes that of the other concept and at least one additional **delimiting characteristic** (B.3.2.7)

NOTE

A generic relation exists between the **concepts** (B.3.2.1) 'word' and 'pronoun', 'vehicle' and 'car', 'person' and 'child'.

B.3.2.22

partitive relation

part-whole relation

relation between two **concepts** (B.3.2.1) where one of the concepts constitutes the whole and the other concept a part of that whole

NOTE

A partitive relation exists between the **concepts** (B.3.2.1) 'week' and 'day', 'molecule' and 'atom'.

B.3.2.23

associative relation

pragmatic relation

relation between two **concepts** (B.3.2.1) having a nonhierarchical thematic connection by virtue of experience

NOTE

An associative relation exists between the **concepts** (B.3.2.1) 'education' and 'teaching', 'baking' and 'oven'.

B.3.2.24

sequential relation

associative relation (B.3.2.23) based on spatial or temporal proximity

NOTE

A sequential relation exists between the **concepts** (B.3.2.1) 'production' and 'consumption', etc.

B.3.2.25

temporal relation

sequential relation (B.3.2.24) involving events in time

NOTE

A temporal relation exists between the **concepts** (B.3.2.1) 'spring' and 'summer', 'autumn' and 'winter'.

B.3.2.26

causal relation

associative relation (B.3.2.23) involving cause and its effect

NOTE

A causal relation exists between the **concepts** (B.3.2.1) 'action' and 'reaction', 'nuclear explosion' and 'fall-out'.

B.3 Definitions

B.3.3.1

definition

representation of a **concept** (B.3.2.1) by a descriptive statement which serves to differentiate it from related concepts

B.3.3.2

intensional definition

definition (B.3.3.1) which describes the **intension** (B.3.2.9) of a **concept** (B.3.2.1) by stating the **superordinate concept** (B.3.2.13) and the **delimiting characteristics** (B.3.2.7)

NOTE The following is an example of an intensional definition for the **concept** (B.3.2.1) 'incandescent lamp':

incandescent lamp

electric lamp in which a filament is heated by an electric current in such a way that it emits light.

B.3.3.3

extensional definition

description of a **concept** (B.3.2.1) by enumerating all of its **subordinate concepts** (B.3.2.14) under one criterion of subdivision

EXAMPLES

Family 18 in the Periodic Table

helium, neon, argon, krypton, xenon and radon

noble gas

helium, neon, argon, krypton, xenon, or radon.

statement which provides further information on any part of a **terminological entry** (B.3.8.2)

B.3.4.3

term

verbal **designation** (B.3.4.1) of a **general concept** (B.3.2.3) in a specific **subject field** (B.3.1.2)

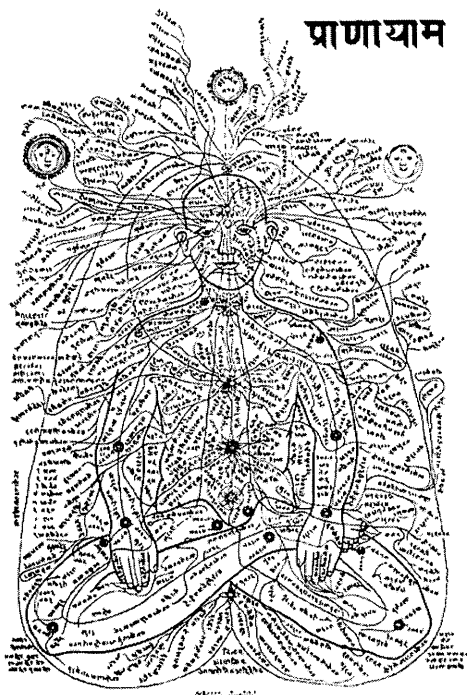
NOTE A term may contain symbols and can have variants, e.g. different forms of spelling.

Annex C (informative)

Sample diagrams of life force flow channel and acupuncture points

C.1 Chinese

The right figure illustrates the Lung Meridian (Shǒu Tàiyīn Fèijīng; 手太陰肺經) and acupuncture points on it. The figure is copied from classic text, *Elucidation of the Fourteen Meridians and Their Function*, 1341.



C.2 India

The left figure illustrates Nadi.