



SLOVENSKI STANDARD
oSIST prEN ISO 18104:2012
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Zdravstvena informatika - Kategorijske strukture za predstavitev diagnoz in postopkov bolniške nege v terminoloških sistemih (ISO/DIS 18104:2012)

Health informatics - Categorical structures for representation of nursing diagnoses and nursing actions in terminological systems (ISO/DIS 18104:2012)

Medizinische Informatik - Kategoriale Strukturen zur Darstellung von Pflegediagnosen und Pflegeaktionen in terminologischen Systemen (ISO/DIS 18104:2012)

Informatique de santé - Structures catégoriques pour la représentation des diagnostics de soins et des actions de soins dans les systèmes terminologiques (ISO/DIS 18104:2012)

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35.240.80	Uporabniške rešitve IT v zdravstveni tehniki	IT applications in health care technology
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Health informatics - Categorical structures for representation of nursing diagnoses and nursing actions in terminological systems (ISO/DIS 18104:2012)

Informatique de santé - Structures catégoriques pour la représentation des diagnostics de soins et des actions de soins dans les systèmes terminologiques (ISO/DIS 18104:2012)

Medizinische Informatik - Kategoriale Strukturen zur Darstellung von Pflegediagnosen und Pflegeaktionen in terminologischen Systemen (ISO/DIS 18104:2012)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 251.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (prEN ISO 18104:2012) has been prepared by Technical Committee ISO/TC 215 "Health informatics" in collaboration with Technical Committee CEN/TC 251 "Health informatics" the secretariat of which is held by NEN.

This document is currently submitted to the parallel Enquiry.

This document will supersede EN ISO 18104:2003.

Endorsement notice

The text of ISO/DIS 18104:2012 has been approved by CEN as a prEN ISO 18104:2012 without any modification.

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Health informatics — Categorical structures for representation of nursing diagnoses and nursing actions in terminological systems

Informatique de santé — Structures catégoriques pour la représentation des diagnostics de soins et des actions de soins dans les systèmes terminologiques

[Revision of first edition (ISO 18104:2003)]

ICS 35.240.80

ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO-lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five-month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

Pour accélérer la distribution, le présent document est distribué tel qu'il est parvenu du secrétariat du comité. Le travail de rédaction et de composition de texte sera effectué au Secrétariat central de l'ISO au stade de publication.

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/DIS 18104 was prepared by Technical Committee ISO/TC 215, *Health Informatics*, Working Group 3 – Semantic Content

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Health informatics — Categorical structures for representation of nursing diagnoses and nursing actions in terminological systems

1 Introduction

Development of terminological systems (also referred to as terminologies) to support nursing has been motivated by multiple factors including the need to:

- Describe nursing in order to educate and inform students and others;
- Represent nursing concepts in electronic systems and communications;
- Analyse data about the nursing contribution to patient care and outcomes - for quality improvement, research, management, reimbursement, policy and other purposes.

Multiple terminologies exist to support representation of concepts for healthcare purposes; some of these are relevant to the nursing domain. In the context of health informatics, there is a clear requirement for both domain coverage and for interoperability among computer-processable terminological systems that support nursing. Nursing terminologies, or those parts of healthcare-related terminologies that are relevant to nursing, include concept representations for nursing diagnoses and nursing actions.

A nursing diagnosis is a label assigned to an assessment finding, event, situation or other health issue to indicate that it is considered by the nurse and the subject of care to be noteworthy. Nursing actions are acts performed by or under the direction of a nurse, with the intention of directly or indirectly improving or maintaining the health of a person, group or population, the precise scope of nursing actions being delineated in each jurisdiction. These concepts and the scope of nursing practice are further elaborated in **Annex C**.

The International Standard ISO 18104:2003 *Integration of a Nursing Reference Terminology Model for Nursing* [1] focused on the conceptual structures that are the basis of nursing terminologies in order to support interoperability. A major purpose of this initial International Standard was 'to establish a nursing reference terminology model consistent with the goals and objectives of other specific health terminology models in order to provide a more unified reference health model' [1]. This purpose is still relevant in 2012 to support interdisciplinary communication, for example, where single, shared records are used, including records held by patients.

Following ISO rules, a review of the 2003 standard was undertaken during 2008/09; national member bodies, nursing organisations, industry representatives and experts provided comment. In addition to evaluation of the purpose, target groups, definitions and provisions of the standard, the review considered the implications of relevant International Standards published since 2003. The main findings / recommendations of the review were:

1. The standard has been used in at least eleven member countries and by several international terminology development organisations.
2. It was recommended that any revision should be based on a clearly articulated value proposition supported by evidence from the review. A number of published reports indicate that the standard is fit for the purposes listed in **Section 2.1**. There is anecdotal evidence of other uses including supporting design of terminology content in electronic record systems.
3. Normative references and definitions must be updated. Other relevant international work should be considered, for example: the World Health Organisation Family of International Classifications (WHO-FIC) International Classification of Healthcare Interventions (ICHI) [2].

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4. Review of relevant ISO standards confirmed that the naming of some categories may need to be revised and that some categories may be more appropriately designated as semantic links.
5. Responses indicated that 'dimension' and 'potentiality' in the diagnosis model and 'target' in the action model were not applied reliably by different users and required further consideration.
6. It was recommended that a model for outcomes be considered and that informative annexes clarify the relationship between the model for diagnoses and the model for actions as well as points of intersection between terminology models and information models.
7. A number of reviewers recommended that the standard should be supported by implementation guidance / examples, and that the title and the language used in the document should be revised so that it is better understood by target groups.

This revision addresses these findings and recommendations. In the Normative part, two redundant categories have been removed (Dimension and Recipient of Care) and changes have been made to correct errors, clarify meaning and update definitions. Examples of use and value are provided in the **Glossary** and linked to specific purposes in **Section 2.1**. The standard defines the structure of terminological expressions for nursing diagnoses and nursing actions – the professional meaning of these constructs and their relationship to other record components is addressed in **Annex C** along with points of intersection between terminology models and information models. An informative description of categorial structures and their implementation is provided in **Annex D**.

2 Scope

2.1 Main purpose

This International Standard specifies the characteristics of two **categorial structures** (4.2), and the minimal **domain constraints** (4.5) required for conformance, with the overall aim of supporting interoperability in the exchange of meaningful information between information systems in respect of nursing diagnoses and nursing actions.

Categorial structures (4.2) for nursing diagnoses and nursing actions support interoperability by providing common frameworks with which to:

- a) analyse the features of different terminologies and to establish the nature of the relationship between them [3] – [8];
- b) develop terminologies for representing nursing diagnoses and nursing actions [9] - [12];
- c) develop terminologies that are able to be related to each other [3], [8], [13];
- d) establish relationships between terminology models, information models and ontologies in the nursing domain [14] – [16];

There is early evidence that the categorial structure for nursing actions can be used as a framework for analyzing nursing practice [17] and for developing content of electronic nursing summaries [18].

2.2 Target audience

This Standard is applicable to:

- developers of terminologies that include nursing diagnosis and nursing action concepts;
- developers of categorial structures and terminologies for other healthcare domains, to support clarification of any relationship to or overlap with nursing concepts;