



SLOVENSKI STANDARD SIST EN ISO 18104:2024

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Nadomešča:
SIST EN ISO 18104:2014

Zdravstvena informatika - Kategorijske strukture za predstavitev prakse bolniške nege v terminoloških sistemih (ISO 18104:2023)

Health informatics - Categorical structures for representation of nursing practice in terminological systems (ISO 18104:2023)

Medizinische Informatik - Kategoriale Strukturen zur Darstellung der Pflegepraxis in terminologischen Systemen (ISO 18104:2023)

Informatique de santé - Structures catégorielles destinées à la représentation des pratiques de soins infirmiers dans les systèmes terminologiques (ISO 18104:2023)

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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 practice in terminological systems (ISO 18104:2023)

Informatique de santé - Structures catégorielles
destinées à la représentation des pratiques de soins
infirmiers dans les systèmes terminologiques (ISO
18104:2023)

Medizinische Informatik - Kategoriale Strukturen zur
Darstellung der Pflegepraxis in terminologischen
Systemen (ISO 18104:2023)

This European Standard was approved by CEN on 17 November 2023.

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European foreword

This document (EN ISO 18104:2023) 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 European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.

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INTERNATIONAL STANDARD

ISO
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Third edition
2023-12

Health informatics — Categorical structures for representation of nursing practice in terminological systems

*Informatique de santé — Structures catégorielles destinées à la
représentation des pratiques de soins infirmiers dans les systèmes
terminologiques*

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 215, *Health informatics*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 251, *Health informatics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 18104:2014), which has been technically revised.

The main changes are as follows:

- more comprehensive representation of nursing practice;
- inclusion of nurse sensitive outcomes, its sub-categories representing known confounding variables and their relationship with the care process;
- inclusion of reference to ISO 13606-2 and openEHR RIM;
- inclusion of reference to ICNP into the SNOMED CT® terminology;
- representation of the nursing action 'Assessment' as an Observation which is represented as a sub-category of NursingAction;
- recognition of the collaborative roles of nurses (and midwives) with their subject of care to inform actions and assessments;
- inclusion of a goal/ expected outcome category;
- inclusion of a number of specified sub-categories enabling the differentiation between Nursing Actions and actions undertaken by others, as listed in a new category titled Outcome Causation;

- category definitions were reviewed and updated;
- definitions are provided for all new categories and sub-categories.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

Development of terminological systems to support nursing has been motivated by multiple factors including the need to:

- represent nursing concepts in electronic systems and communications, including systems that support multi-professional team communications and personal health records;
- analyse data about the nursing contribution to subject of care and outcomes — for quality improvement, research, resource and performance management, reimbursement, policy and other purposes;
- describe nursing in order to educate and inform students and others.

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. These requirements are best represented by clinical information models. Nursing terminologies, or those parts of healthcare-related terminologies that are relevant to nursing, include concept representations for nursing assessments, a nursing action undertaken to determine a nursing diagnoses (judgements). Nursing diagnoses inform the need for further nursing actions. Collectively these concepts represent the provision of nursing services whilst nurse sensitive outcomes represent the result of health services, including nursing services, delivered at any point in time.

A nursing diagnosis is used as an indicator of nursing service demand. Nursing actions represent nursing service delivery components undertaken to meet the service demand. These concepts and the scope of nursing practice are further elaborated in [Annex A](#).

It was identified that nursing outcome definitions need to differentiate between conceptual, structural or contextual viewpoints. A conceptual definition recognises that nurse-sensitive subject of care outcomes are the result of a number of defining aspects. Nurse-sensitive health outcomes not only pertain to individuals but also to groups, families, local communities and the population at large. This is further elaborated in [Annex A](#).

Nursing practice is best represented by terminological systems pertaining to three key categories, 1) Nursing Diagnosis, 2) Nursing Actions and 3) Nurse Sensitive Outcomes. These concepts and the scope of nursing practice reflect the nursing process, they are further elaborated in [Annex A](#). The categories that make up the nursing practice domain are shown in [Figure A.1](#). Semantic links between categories are shown in [Figures 1, 2 and 3](#). As this document deals with populations and groups of individuals, as well as individual subjects of care, the definition of 'subject of care' does not conform with ISO 13940:2015.

Many of the categories and subcategories included in this document are equally applicable to other clinical disciplines. This categorial structure represents a common pattern for all types of clinical practices. The terminologies association with each of these categories and sub-categories are likely to differ to best represent each discipline's knowledge base and service protocols.

Topics considered outside the scope of this document include

- complete categorial structures that would cover all the potential details that could appear in expressions of nursing diagnoses, nursing actions and nurse sensitive outcomes,
- a detailed terminology of nursing diagnoses or nursing actions or nurse sensitive outcomes,
- a "state model" for nursing diagnoses or nursing actions or nurse sensitive outcomes — for example, provisional nursing diagnosis or absent nursing diagnosis, planned nursing action or nursing action not to be done — see [Annex A](#),
- nursing diagnoses made and nursing actions undertaken by nurses working in other professional roles — see [Annex A](#), and
- knowledge relationships such as causal relationships between concepts — see [Annex B](#).