SLOVENSKI STANDARD
oSIST prEN ISO 21549-5:2014

01-december-2014

Zdravstvena informatika - Podatki o pacientu na zdravstveni kartici - 5. del: Identifikacijski podatki (ISO/DIS 21549-5:2014)

Health informatics - Patient healthcard data - Part 5: Identification data (ISO/DIS 21549-5:2014)

Medizinische Informatik – Patientendaten auf Karten im Gesundheitswesen – Teil 5: Identifikationsdaten (ISO/DIS 21549-5:2014)

Informatique de santé - Données relatives aux cartes de santé des patients - Partie 5: Données d'identification (ISO/DIS 21549-5:2014)

Ta slovenski standard je istoveten z: **prEN ISO 21549-5 rev**

ICS:

35.240.15	Identifikacijske kartice in sorodne naprave	Identification cards and related devices
35.240.80	Uporabniške rešitve IT v zdravstveni tehniki	IT applications in health care technology

oSIST prEN ISO 21549-5:2014 **en,fr,de**

DRAFT INTERNATIONAL STANDARD
ISO/DIS 21549-5

ISO/TC **215**
Secretariat: **ANSI**

Voting begins on:
2014-09-25

Voting terminates on:
2015-02-25

Health informatics — Patient healthcard data —

Part 5: Identification data

Informatique de santé — Données relatives aux cartes de santé des patients —
Partie 5: Données d'identification

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.

Reference number
ISO/DIS 21549-5:2014(E)

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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 21549-5 was prepared by Technical Committee ISO/TC 215, *Health Informatics*.

This second edition cancels and replaces the first edition (ISO 21549-5:2008), which has undergone a minor revision. The following changes have been made:

— Subclause 5.2, Table 1: condition of Sex optionality is added.

— Subclause 5.2, Table 1: optionality of National representation of the name is corrected to match ASN.1 definition and Figure 1.

ISO 21549 consists of the following parts, under the general title *Health informatics — Patient healthcard*:

— *Part 1: General Structure*

— *Part 2: Common objects*

— *Part 3: Limited clinical data*

— *Part 4: Extended clinical data*

— *Part 5: Identification data*

— *Part 6: Administrative data*

— *Part 7: Medication data*

— *Part 8: Links*

Introduction

With a more mobile population, greater healthcare delivery in the community and at patients' homes, together with a growing demand for improved quality of ambulatory care, portable information systems and stores have increasingly been developed and used. Such devices are used for tasks ranging from identification, through portable medical record files, and on to patient-transportable monitoring systems.

The functions of such devices are to carry and to transmit person-identifiable information between themselves and other systems; therefore, during their operational lifetime they may share information with many technologically different systems which differ greatly in their functions and capabilities.

Healthcare administration increasingly relies upon similar automated identification systems. For instance prescriptions may be automated and data exchange carried out at a number of sites using patient transportable computer readable devices. Healthcare funding institutions and providers are increasingly involved in cross-region care, where reimbursement may require automated data exchange between dissimilar healthcare systems. Administrative data objects may require linkage to external parties responsible for their own domains which are not within the scope of this part of ISO 21549. For instance, cross-border reimbursement of healthcare services are usually regulated by law and intergovernmental agreements which are not subject to standardization.

The advent of remotely accessible databases and support systems has led to the development and use of "Healthcare Person" identification devices that are also able to perform security functions and transmit digital signatures to remote systems via networks.

With the growing use of data cards for practical everyday healthcare delivery, the need has arisen for a standardized data format for interchange.

The person-related data carried by a data card can be categorised in three broad types: identification (of the device itself and the individual to whom the data it carries relates), administrative and clinical. It is important to realize that a given healthcare data card "de facto"has to contain device data and identification data and may in addition contain administrative, clinical, medication and linkage data.

Device data are defined to include:

— identification of the device itself;

— identification of the functions and functioning capabilities of the device.

Identification data are defined to include:

— unique identification of the device holder (and not information of other persons!).

Administrative data can include:

— complementary person(s) related data;

— identification of the funding of healthcare, whether public or private, and their relationships, i.e. insurer(s), contract(s) and policy(ies) or types of benefits;

— identification of other persons as a part of the insurance contract (e.g. a family contract);

— other data (distinguishable from clinical data) that are necessary for the purpose of healthcare delivery.

Clinical data may include:

— items that provide information about health and health events;

— their appraisal and labelling by a healthcare provider;

— related actions planned requested or performed.

Medication data may include:

— a record of medications received or taken by the patient;

— copies of prescriptions including the authority to dispense records of dispensed medication;

— records of medication bought by the patient;

— pointers to other systems that contain information that makes up an electronic prescription and the authority to dispense.

Because a data card essentially provides specific answers to definite queries while having at the same time a need to optimize the use of memory by avoiding redundancies “high level” Object Modelling Technique (OMT) has been applied with respect to the definition of healthcare data card data structures.

This part of ISO 21549 describes and define the basic structure of the identification data objects held on healthcare data cards using UML, plain text and Abstract Syntax Notation (ASN.1).

This part of ISO 21549 does not describe and define the common objects defined within ISO 21549-2 even though they are referenced and utilized within this document.

Health informatics — Patient healthcard data —

Part 5: Identification data

1 Scope

This part of ISO 21549 describes and define the basic structure of the identification data objects held on healthcare data cards, but does not specify particular data sets for storage on devices.

The detailed functions and mechanisms of the following services are not within the scope of this part of ISO 21549 (although its structures can accommodate suitable data objects elsewhere specified):

— security functions and related services that are likely to be specified by users for data cards depending on their specific application, e.g. confidentiality protection, data integrity protection and authentication of persons and devices related to these functions;

— access control services;

— the initialization and issuing process (which begins the operating lifetime of an individual data card, and by which the data card is prepared for the data to be subsequently communicated to it according to this part of ISO 21549).

The following topics are therefore beyond the scope of this part of ISO 21549:

— physical or logical solutions for the practical functioning of particular types of data card;

— the form that data take for use outside the data card, or the way in which such data are visibly represented on the data card or elsewhere.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

ISO 8601, *Data elements and interchange formats — Information interchange — Representation of dates and times*

ISO 21549-1, *Health informatics — Patient healthcard data — Part 1: General structure*

ISO 21549-2, *Health informatics — Patient healthcard data — Part 2: Common objects*

ISO 21549-6, *Health informatics — Patient healthcard data — Part 6: Administrative data*

ISO/IEC 5218, *Information technology — Codes for the representation of human sexes*

ISO/IEC 7816-6, *Identification cards — Integrated circuit cards — Part 6: Interindustry data elements for interchange*

ISO/IEC 8824-1, *Information technology — Abstract Syntax Notation One (ASN.1): Specification of basic notation — Part 1*

ISO/IEC 8825-1, *Information technology — ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER) — Part 1*

ISO/IEC 10646, *Information technology — Universal Multiple-Octet Coded Character Set (UCS)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21549-1 and the following apply:

3.1
identification data
data that provide for the unique identification of the cardholder to whom the records relate

[SOURCE: ISO 251549-1:2013, Clause 5.3]

4 Symbols and abbreviated terms

ASN.1	Abstract Syntax Notation One
CRT	Cardholder Related Template
ICAO	International Civil Aviation Organization
L	Length (ASN.1)
LDS	Logical Data Structure of machine-readable travel documents
N	Numeric
NET	National Extensions Template
UCS	Universal Multiple-Octet Coded Character Set
UML	Unified Modelling Language
UTF8	UCS Transformation Format 8

5 Identification data objects

5.1 Identification objects and data structure

For identification of the cardholder, information about the following objects is needed:

- person;
- address;
- telephone;
- miscellaneous.

The structure of the identification information is derived from the LDS set used for machine-readable travel documents (LDS document of ICAO). No separate objects are introduced for healthcare. The following paragraph contains the table with the definitions of the identification data set.

