Health informatics - Patient healthcard data - Part 1: General structure (ISO 21549-1:2013)

EESTI STANDARDIKESKUS EVS
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NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 21549-1:2013 sisaldab Euroopa standardi EN ISO 21549-1:2013 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 21549-1:2013 consists of the English text of the European standard EN ISO 21549-1:2013.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 19.06.2013.	Date of Availability of the European standard is 19.06.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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Informatique de santé - Données relatives aux cartes de santé des patients - Partie 1: Structure générale (ISO 21549-1:2013)

Medizinische Informatik - Patientendaten auf Karten im Gesundheitswesen - Teil 1: Allgemeiner Aufbau (ISO 21549-1:2013)

This European Standard was approved by CEN on 2 June 2013.

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Foreword

This document (EN ISO 21549-1:2013) 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of an identical text or by endorsement, at the latest by December 2013, and conflicting national standards shall be withdrawn at the latest by December 2013.

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

This document supersedes EN ISO 21549-1:2004.

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Endorsement notice

The text of ISO 21549-1:2013 has been approved by CEN as EN ISO 21549-1:2013 without any modification.

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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 records, 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 insurers and providers are increasingly involved in cross-region care, where reimbursement may require automated data exchange between dissimilar healthcare systems.

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 categorized in three broad types: identification (of the device itself and the individual to whom the data it carries relate), 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 and clinical data.

Device data are defined to include:

— identification of the device itself;

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

Identification data may include:

— unique identification of the device holder or of all other persons to whom the data carried by the device are related.

Administrative data may 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;

— 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 (HCP);

— related actions planned, requested or performed.

Because a data card essentially provides specific answers to definite queries while at the same time there is 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.

Data in the four categories above share many features. For instance, each may need to include ID numbers, names and dates. Some information may also have clinical as well as administrative uses. Therefore it has been considered inadequate to provide a simple list of items carried by healthcare data cards without applying a generic organization, based upon the existence of basic data elements. These may be defined by their characteristics (e.g. their format), and from them compound data objects may be constructed; several such objects may also share attributes.

Health informatics — Patient healthcard data —

Part 1:
General structure

1   Scope

This part of ISO 21549 defines a general structure for the different types of data to be defined in other parts of ISO 21549 using UML notation. ISO 21549 defines data structures held on patient healthcards compliant with the physical dimensions of ID-1 cards, as defined by ISO/IEC 7810.

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/IEC 7810, *Identification cards — Physical characteristics*

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

ISO 21549-3, *Health informatics — Patient healthcard data — Part 3: Limited clinical data*

ISO 21549-4, *Health informatics — Patient healthcard data — Part 4: Extended clinical data*

ISO 21549-5, *Health informatics — Patient healthcard data — Part 5: Identification data*

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

ISO 21549-7, *Health informatics — Patient healthcard data — Part 7: Medication data*

ISO 21549-8, *Health informatics — Patient healthcard data — Part 8: Links*

3   Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
data object
collection of data that has a natural grouping and may be identified as a complete entity

3.2
healthcare data card
card conformant to ISO 7816 (all parts) intended for use within the healthcare domain

3.3
patient healthcard
healthcare data card containing data related to a unique record person intended for use within the healthcare domain

Note 1 to entry: The term "patient" is not intended to determine that the record person is currently a subject of care.

3.4
record
collection of data