

Terminologies and Conceptual Systems for Health Telematics

Internationally comprehensible standardised terminology systems are essential for electronic data exchange in medicine, e.g. in integrated patient care. Alpha-ID, LOINC and OID are important instruments for precise naming of terms and objects in medicine. As expert for medical classifications, nomenclatures and thesauri, DIMDI is also in charge of the above mentioned basic components for tele-medical applications.

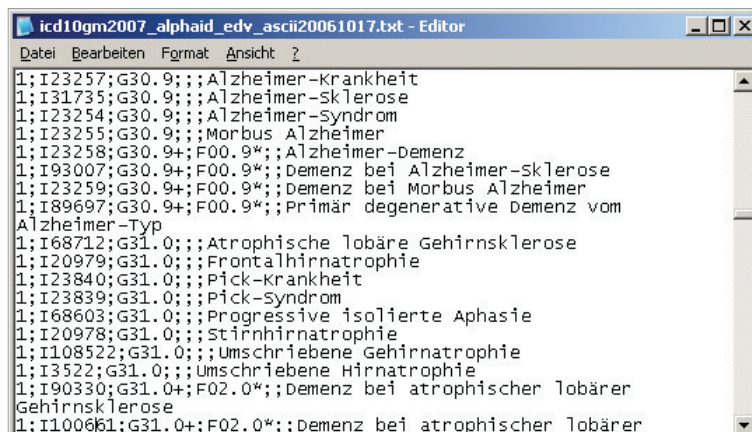
The semantic basic components made available by DIMDI are already in practical use in numerous systems: They are used, for example, in the Health-Level-7 (HL 7) Implementation-Guide for Insurance Information, in the Implementation Guide for quality within dialysis treatment and the VHitG medical report.

Alpha-ID for Diagnoses

The Alpha-ID serves as a detailed and medically applicable interpretation of diagnoses.

The Alpha-ID is basically a consecutive number which identifies the entries of the alphabetical index of the ICD-10-GM.

The Alpha-ID allows machine-usable interpretation of detailed medical information and offers the potential to incorporate internationally used nomenclatures and classifications like the ICD-10.



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1; I23257; G30.9;; Alzheimer-Krankheit
1; I31735; G30.9;; Alzheimer-Sklerose
1; I23254; G30.9;; Alzheimer-Syndrom
1; I23255; G30.9;; Morbus Alzheimer
1; I23258; G30.9+; F00.9*;; Alzheimer-Demenz
1; I93007; G30.9+; F00.9*;; Demenz bei Alzheimer-Sklerose
1; I23259; G30.9+; F00.9*;; Demenz bei Morbus Alzheimer
1; I89697; G30.9+; F00.9*;; Primär degenerative Demenz vom
Alzheimer-Typ
1; I68712; G31.0;; Atrophische lobäre Gehirnsklerose
1; I20979; G31.0;; Frontalhirnatrophie
1; I23840; G31.0;; Pick-Krankheit
1; I23839; G31.0;; Pick-Syndrom
1; I68603; G31.0;; Progressive isolierte Aphasie
1; I20978; G31.0;; Stirnhirnatrophie
1; I108522; G31.0;; Umschriebene Gehirnatrophie
1; I3522; G31.0;; Umschriebene Hirnatrophie
1; I90330; G31.0+; F02.0*;; Demenz bei atrophischer lobärer
Gehirnsklerose
1; I100661; G31.0+; F02.0*;; Demenz bei atrophischer lobärer
  
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An extract of the Alpha-ID

The constancy of the code and therefore its interoperability is secured by DIMDI's maintenance.

In view of the increased networking in health care, the codes must be structured coherently and the terms clearly designated. By adding Alpha-ID to the alphabetical index (ICD-10), a nationwide standardised, sophisticated coding is possible without disturbing the treatment process.

The high diffusion rate of the alphabetical index in Germany makes the terminology easy and accessible region-wide without increasing bureaucracy.

Processing of the Alpha-ID entries is subject to a continuous maintenance procedure, which also takes third party suggestions for improvement into consideration. »

Alpha-ID at DIMDI:

www.dimdi.de

- eHealth - Alpha-ID

Please send your suggestions for

improvement of the Alpha-ID to:

alpha-id@dimdi.de

LOINC for the laboratory area and clinical investigations

» LOINC is the abbreviation for Logical Observation Identifiers Names and Codes. The coding system for the laboratory area is approved by the German Institute for Standardization (DIN) and is presently establishing itself in laboratory information systems and analyzers. At DIMDI you have online access to the LOINC database under www.dimdi.de - eHealth - LOINC.

Use of different systems among senders and receivers of data in hospitals, laboratories and medical practices may result in laboratory values and clinical findings not being properly transmitted and interpreted.

The LOINC system solves this problem by supplying universal, internationally unambiguous identifiers for laboratory tests and clinical findings. LOINC consist of several axes:

» The **laboratory tests** contain the usual categories of clinical chemistry, haematology, serology, microbiology and toxicology. There are categories for medicines, drugs, and allergens and for cell counts, as can be found in a blood count or cerebrospinal fluid cytology.

» The **clinical part** of the LOINC database contains entries for vital signs, for haemodynamic determination, for fluid balancing, for electrocardiograms, ultrasonics in obstetrics, echocardiography, imaging in urology, gastroenterological endoscopy, artificial respiration and other clinical investigations.

The Regenstrief Institute in Indianapolis maintains the LOINC database and the corresponding documentation (User's Manual). The German user group (LOINC User Group) groups together the specialised knowledge from medical laboratory users and industrial software promoters and together with DIMDI and HL7,

compiles partial translations and selection catalogues of the US-American standard works.

LOINC at DIMDI:
www.dimdi.de - eHealth
- LOINC

OID for Objects

The precise classification and naming of objects in health care by means of object identifiers (OID) is also necessary for standardised data exchange: Even a producer of hospital software or a medical concepts system must be clearly identified throughout the world.

Different organisations assign OID for health care. In order to concentrate the-

OID at DIMDI:
www.dimdi.de - eHealth - OID

1.2.276.0.76.3.1.1	kbv	The National Association of Statutory Health Insurance Physicians (Kassenärztliche Bundesvereinigung)
1.2.276.0.76.3.1.2	dimdi	Deutsches Institut für Medizinische Dokumentation und Information, German Institute of Medical Documentation and Information
1.2.276.0.76.5.355	alphaid2009	ID of the alphabetical Index ICD-10-GM-2009. Alpha-ID
1.2.276.0.76.5.357	ops2009	The german procedure classification OPS according to §301 SGB V Version 2009 DIMDI BMG
1.2.276.0.76.5.356	icd10gm2009	International Statistical Classification of Diseases and Related Health Problems (ICD), German modification ICD-10-GM 10th revision, Version 2009, DIMDI, BMG

se activities and therefore support reliable data exchange (interoperability), central and separate registration, administration and maintenance of OID is essential for health care.

Examples of OID

Since December 2005, DIMDI has been the German OID registration centre and provides the essential structure for the identification and administration of medical data objects. DIMDI offers a convenient database with search request for existing OID: www.dimdi.de – eHealth – OID.

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Within the scope of the

Cooperation

DIMDI has closely collaborated for a few years now with HL7 User Group Germany and HL7 International is represented there in several working parties. In addition, employees of DIMDI are active in working committees of the German Institute of Standardization (DIN) and some are delegated to CEN and ISO. ■

 Federal Ministry
of Health