Irish Standard
I.S. EN 12264:2005

Health informatics - Categorial structures for systems of concepts

I.S. EN 12264:2005

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:	*This document is based on:*	*Published:*
ENV 12264:1997	EN 12264:2005 ENV 12264:1997	15 June, 2005 22 October, 1997

This document was published under the authority of the NSAI and comes into effect on:
16 July, 2007

ICS number:
35.240.80

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W **NSAI.ie**

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

I.S. EN 12264:2005

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 12264

June 2005

ICS 35.240.80

English version

Health informatics - Categorial structures for systems of concepts

Informatique de santé - Structures catégorielles des systèmes de concepts

Medizinische Informatik - Kategoriale Struktur für Begriffssysteme

This European Standard was approved by CEN on 29 April 2005.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. EN 12264:2005: E

Contents

Foreword

This European Standard (EN 12264:2005) has been prepared by 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 2005, and conflicting national standards shall be withdrawn at the latest by December 2005.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard : Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

Computer-based processing and interchange of medical or clinical information require various kinds of terminological systems of concepts to represent that information, such as controlled vocabularies, classifications, nomenclatures, terminologies and thesauri, with or without coding schemes.

The specific terminological issues in the field of health informatics are:

- large number of different terminological systems are available in different clinical specialties;

-large overlap among the subject fields involved;

-large number of codes and rubrics, typically in the order of magnitude of 10,000 to 100,000 entries, in commonly used terminological systems;

- increasing need for re-use of coded data in different health-care contexts;

- polysemy across different clinical specialties and sometimes within them.

The integration of computer-based medical records and administrative information systems in Electronic Health Records (EHR) requires rationalisation in the field, and a uniform way to represent the meaning of medical concepts to ensure that the receiver EHR of a message will catch the meaning introduced by the sender EHR and not only the string of characters embedded in it. It is not possible to impose a rigid uniform standardised natural language clinical terminology on healthcare providers.

Instead a domain specific semantic model has been envisioned and applied in a series of specific European standards (EN) and international standards (ISO) on various subject fields to describe a set of categorial structures in partially overlapping subject fields: a European standard for surgical procedures (EN 1828), an ISO standard on integration of a reference model for nursing (EN ISO 18104) and an ISO technical specification on medical devices. There are also several European Pre standards (ENV) for: clinical laboratory measurements (ENV 1614), medical devices (ENV 12611), vital signs (EN ISO:IEEE 11073-10101 - Part 10101: Nomenclature), point-of-care medical device communication (EN ISO:IEEE 11073-10101 - Part 10101: Nomenclature), medicinal products (ENV 12610), nursing (ENV 14032) and continuity of care (ENV 13940).

This European Standard specifies the terminology and categorical structure description to be used for systems of concepts. Field testing in several countries, revision and integration have provided the comprehensive basis for this document.

1 Scope

1.1 Main purpose

The purpose of this European Standard is to establish the characteristics and the conformance rules required to synthetically describe the organisation and content of a terminological system in health. This European Standard has been developed to allow the production of specific standards on categorial structures for particular healthcare subject fields with the minimum requirements to support meaningful exchange of information.

This European Standard is applicable to:

- facilitate the construction of new terminological systems in a regular form which will increase their coherence and expressiveness;

- facilitate maintenance of terminological systems;

- increase consistency and coherence of existing terminological systems;

- allow systematic cross-references between items of different types of terminological systems;

- facilitate convergence among terminological systems;

- make explicit the overlap between different health care domains terminological systems;

- provide elements for negotiation about integration of different terminological systems into information systems between the respective developers;

- enable the systematic evaluation of terminological systems.

1.2 Target groups

The target groups for this European Standard are:

- designers of specialised standard healthcare terminological categorial structures;

- developers of healthcare terminological systems including classifications and coding systems;

- producers of services for terminological systems and designers of software including applications for natural language processing;

- information modellers, knowledge engineers, and standards developers building models for health information management systems;

- developers of information systems that require an explicit system of concepts;

- developers of mark-up standards for representation of healthcare documents.

1.3 Topics outside the scope

This European Standard has been developed for use as an integrated part of computer-based applications and for the electronic healthcare record. It would be of limited value for manual use.