

## Health Information Technology and Health Data Standards at NLM

<https://www.nlm.nih.gov/healthit/index.html>



The National Library of Medicine (NLM) is the central coordinating body for clinical terminology standards within the Department of Health and Human Services (HHS). NLM works closely with the Office of the National Coordinator for Health Information Technology (ONC) to ensure NLM efforts are aligned with the goal of the President and HHS Secretary for the nationwide implementation of an interoperable health information technology infrastructure to improve the quality and efficiency of health care.

### Vocabulary Standards

#### LOINC

The Logical Observation Identifiers Names and Codes terminology (LOINC) was developed and is maintained by the Regenstrief Institute, Inc., a non-profit medical research organization associated with Indiana University. The purpose of LOINC is to facilitate the exchange and pooling of clinical or laboratory results for clinical care, outcomes management, claims attachment, and research by providing a set of universal codes and names. LOINC codes allow users to merge clinical results from many sources into one database for patient care, clinical research, or management.

<https://loinc.org/>

#### RxNorm

RxNorm provides normalized names for clinical drugs and links its names to many of the drug vocabularies commonly used in pharmacy management and drug interaction software, including those of First Databank, Micromedex, MediSpan, Gold Standard Drug Database, and Multum. By providing links between these vocabularies, RxNorm can mediate messages between systems not using the same software and vocabulary.

<https://www.nlm.nih.gov/research/umls/rxnorm/index.html>

#### SNOMED CT

SNOMED CT is a clinical terminology and a required standard in interoperability specifications of the U.S. Healthcare Information Technology Standards Panel. The terminology is owned and maintained by the International Health Terminology Standards Development Organisation (IHTSDO), a not-for-profit association. NLM is the United States National Release Center for SNOMED CT.

<https://www.nlm.nih.gov/healthit/snomedct/index.html>

#### Unified Medical Language System (UMLS)

The UMLS integrates and distributes key terminology, classification and coding standards, and associated resources to promote creation of more effective and interoperable biomedical information systems and services, including electronic health records.

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## Terminology Tools

### AccessGUDID

The Global Unique Device Identification Database (GUDID) contains key device identification information submitted to the FDA about medical devices. The FDA is establishing the unique device identification system to adequately identify devices sold in the U.S.- from manufacturing through distribution to patient use. You can use AccessGUDID to search for specific medical devices or download all the GUDID data at once. AccessGUDID also offers RSS feeds and APIs to connect you directly to the data. <https://accessgudid.nlm.nih.gov/>

### Common Data Element Repository

The NIH Common Data Elements (CDE) Repository has been designed to provide access to structured human- and machine-readable definitions of data elements that have been recommended or required by NIH and other organizations for use in research and for other purposes. The Repository is a platform for identifying related data elements in use across diverse areas, for harmonizing data elements, and for linking CDEs to other existing standards and terminologies, including the value sets in the Value Set Authority Center (VSAC). <https://cde.nlm.nih.gov/>

### DailyMed

DailyMed is the official provider of FDA label information (package inserts). This Web site provides a standard, comprehensive, up-to-date, look-up and download resource of medication content and labeling found in medication package inserts. <https://dailymed.nlm.nih.gov/>

### MedlinePlus Connect

MedlinePlus Connect helps patients and health care providers access consumer health information at the point of need in a health IT system. Patient portals, patient health record (PHR) systems, and electronic health record (EHR) systems can use MedlinePlus Connect to provide health information for patients, families, and healthcare providers using standard clinical vocabularies for diagnoses (problem codes), medications, and lab tests. <https://www.medlineplus.gov/connect>

### MetaMap

MetaMap is a highly configurable program developed by the NLM to map biomedical text to the UMLS Metathesaurus or to discover Metathesaurus concepts referred to in text. MetaMap uses a knowledge-intensive approach based on symbolic, natural-language processing (NLP) and computational-linguistic techniques. Besides being applied for both IR and data-mining applications, MetaMap is one of the foundations of NLM's Medical Text Indexer (MTI) which is being used for both semiautomatic and fully automatic indexing of biomedical literature at NLM.

<https://metamap.nlm.nih.gov/>

### Value Set Authority Center (VSAC)

The VSAC provides access to vocabulary value sets contained in the 2014 electronic Clinical Quality Measures (eCQMs). Each value set consists of the numerical values (codes) and human-readable names (terms), drawn from standard vocabularies such as SNOMED CT®, RxNorm, LOINC, and ICD-10-CM, which are used to define clinical concepts used in clinical quality measures (e.g., patients with diabetes, clinical visit). <https://vsac.nlm.nih.gov/>



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