



Implementation of SNOMED-CT Needed to Facilitate Interoperable Exchange of Health Information

Reviewed and Approved – December 2007

AHIMA's Position

AHIMA calls for widespread adoption and implementation of SNOMED-CT® as a standard clinical terminology in order to facilitate a national health information network and the interoperable exchange of health information between standard electronic health records (EHR).

AHIMA further calls for the development of robust maps from SNOMED-CT to ICD-10-CM and ICD-10-PCS in order to immediately maximize the value of the clinical data and the benefits of EHR systems once ICD-10 code sets, rules, and guidelines are implemented as a replacement for ICD-9-CM.

AHIMA calls for the following actions:

- **Implementation of SNOMED-CT as a standard reference terminology within EHR systems and any standard EHR designated by the Department of Health and Human Services (HHS).**
- **Promotion by the federal government for the development of robust, rules-based maps, designed for different use cases, between SNOMED-CT and other terminologies and classification systems, including ICD-10-CM and ICD-10-PCS.ⁱ Such maps should be made publicly available through the Unified Medical Language Systems (UMLS).**
- **Immediate, federally sponsored, research to demonstrate SNOMED-CT use cases and identify ways in which implementation of SNOMED-CT can be accelerated.**

Rationale

- **A standard clinical terminology is essential for an interoperable national information network.ⁱⁱ**
- **As a controlled clinical reference terminology, SNOMED-CT codifies the clinical information that is captured in an EHR during care and provides a common language that enables consistency in capturing, storing, retrieving, sharing, and aggregating health data across specialties and sites of care.ⁱⁱⁱ**
- **A standard clinical terminology, interacting within an EHR system, results in:**
 - **Access to complete and legible clinical data with links to medical knowledge for real-time clinical decision support;**
 - **Interoperability that permits many different sites and providers to send and receive explicit and useful medical data that speeds care delivery and reduces duplicate testing and prescribing;**
 - **Computer analysis of standardized data for identifying relevant patient information to produce automatic reminders or practitioner alerts;**
 - **The ability to perform queries to review standards of care for benchmarking, measuring and interpreting effectiveness, and quality improvement.^{iv}**

- Mapping from SNOMED-CT to other medical terminologies and classification systems avoids duplicate data capture, while facilitating enhanced health reporting, billing, and statistical analysis.^v
- Mapping from SNOMED-CT to ICD-10-CM and ICD-10-PCS will facilitate the administrative reporting process by enabling computer-assisted ICD-10-CM/PCS coding, and improve the value of clinical data by facilitating retrieval at the desired level of detail (SNOMED-CT, ICD-10-CM/PCS or another classification system), depending on the purpose for which the data is used.
- Demonstration of use cases for SNOMED-CT, including the value of mapping to administrative code sets such as ICD-9-CM, ICD-10-CM, and ICD-10-PCS, will help to speed widespread implementation of SNOMED-CT.
- Although a map already exists between SNOMED-CT and ICD-9-CM, use of ICD-9-CM in EHR systems instead of ICD-10-CM and ICD-10-PCS diminishes the value of the US investment in SNOMED-CT. The full benefit of a common reference terminology cannot be realized if it is aggregated into an obsolete classification system.

Current Situation

- In 2003, the National Library of Medicine (NLM) entered into a five-year agreement to license SNOMED-CT for use in the US. This provides US users and vendors to incorporate this powerful tool into widespread EHR products without incurring individual licensing agreements and costs.
- The National Committee on Vital and Health Statistics (NCVHS) has recommended:
 - The federal government recognize a “core set” of patient medical record information (PMRI) terminologies as a national standard, one of which was SNOMED-CT.^{vi}
 - The federal government recognize an additional group of terminologies as “important related terminologies,” which included code sets promulgated under the Health Insurance Portability and Accountability Act (HIPAA) and that the government promote the creation and maintenance of mappings between these terminologies and the core set of PMRI terminologies.
 - HHS initiate the regulatory process for the adoption of ICD-10-CM and ICD-10-PCS as replacements for the 30-year-old ICD-9-CM. To date, HHS has not yet acted on this recommendation.
- The Institute of Medicine (IOM) report “Patient Safety: Achieving a New Standard for Care” noted that having a common clinical reference terminology is expected to reduce the cost, increase the efficiency, and improve the quality of data exchange, clinical research, patient safety, sharing of computer guidelines, and public health monitoring.^{vii}

AHIMA is the premier association of health information management (HIM) professionals. AHIMA’s 51,000 members are dedicated to the effective management of personal health information needed to deliver quality healthcare to the public. Founded in 1928 to improve the quality of medical records, AHIMA is committed to advancing the HIM profession in an increasingly electronic and global environment through leadership in advocacy, education, certification, and lifelong learning.

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Background on SNOMED-CT and Mapping

SNOMED-CT:

- Is a comprehensive, precise clinical reference terminology that contains concepts linked to clinical knowledge to enable accurate recording of data without ambiguity;
- Is specifically designed for use in an EHR:
 - It is incompatible with a paper-based health record system.
 - Integrated into software applications, it represents clinically relevant information in a reliable, reproducible manner;
- Supports clinical decision support systems, computerized physician order entry systems, and critical care monitoring;
- Facilitates communication among clinicians and improves the quality of data available for research and measurement of clinical outcomes;
- Ensures interoperability of patient information across software applications for disease management, treatments, etiologies, clinical findings, therapies, procedures, and outcomes;
- Provides a common language that enables a consistent way of capturing, indexing, storing, retrieving, and aggregating clinical data across clinical specialties and sites of care;
- Contains concepts linked to clinical knowledge to enable accurate recording of data without ambiguity;
- Works through implementation in software applications, representing clinically relevant information in a reliable, reproducible manner;
- Contains over 364,400 concepts with unique meanings and formal logic-based definitions; more than 984,000 English language descriptions or synonyms; and approximately 1.47 million semantic relationships.

Mapping

The purpose of mapping is to provide a link between one terminology and another in order to:^{viii}

- Use data collected for one purpose for another purpose,
- Retain the value of data when migrating to newer database formats and schemas, and
- Avoid entering data multiple times and the associated risk of increased cost and errors.

See the AHIMA white paper, *Coordination of SNOMED-CT and ICD-10: Getting the Most Out of Electronic Health Record Systems*, for a complete description of the roles of terminologies and classifications in EHR systems and the importance of mapping to effectively use clinical information for multiple purposes.

ⁱ See AHIMA statement “Support of Prompt Adoption of ICD-10-CM and ICD-10-PCS in the United States,” available at www.ahima.org/icd10

ⁱⁱ AHIMA letter to HHS Secretary Tommy Thompson (July 2003). Available at www.ahima.org/dc

ⁱⁱⁱ Available at the SNOMED Website at www.snomed.org

^{iv} Giannangelo, Kathy, *Clinical Vocabulary Basics*. AHIMA audio seminar. August 26, 2004.

^v Giannangelo, Kathy, *Clinical Vocabulary Basics*. AHIMA audio seminar. August 26, 2004.

^{vi} National Committee on Vital and Health Statistics, “Recommendations for PMRI Terminology Standards.” NCVHS letter to HHS Secretary and report titled “NCVHS Patient Medical Record Information Terminology Analysis Reports” – available at www.ncvhs.hhs.gov

^{vii} Institute of Medicine, “Patient Safety: Achieving a New Standard for Care.” November 20, 2003. Available at www.iom.edu/reports.asp

^{viii} Imel, Margaret, and James Campbell. “Mapping from a Clinical Terminology to a Classification.” AHIMA’s 75th Anniversary National Convention and Exhibit Proceedings, October 2003.