HIM's Expanding Role in Clinical Data Analysis and Mapping

By Jane Cook, CPC

As the healthcare community works to meet the requirements of the Centers for Medicare and Medicaid Services' (CMS) "meaningful use" EHR incentive program and other initiatives, new opportunities are forming for the health information management (HIM) professional. Roles in both clinical data analysis and mapping have emerged following these recent developments in the HIM field.

At its core, meaningful use is a set of specifications and data standards designed to promote the adoption and use of interoperable health information within electronic health record systems. In order to achieve success, healthcare organizations must "translate" their non-standard historical data to those standards identified within the program.

Another commonly used term for this effort is "mapping," defined by the International Organization for Standardization as "the process of associating concepts or terms from one coding system to concepts or terms in another coding system and defining their equivalence in accordance with a documented rationale and a given purpose."[1] The general equivalence mappings (GEMs) created by CMS are one example of this process, developed to assist with the transition from ICD-9-CM to ICD-10-CM/PCS.

Mapping Basics

Mapping involves a source terminology or data set-the start point from which one is mapping-and a target terminology or data set-the destination for which one is attempting to find equivalence. For example, the GEMs contain a set of maps from ICD-9-CM diagnoses (the source) to ICD-10-CM diagnoses (the target).

How closely the codes are related to one another is characterized by either an "equivalent" or "approximate" relation type. In some cases there is no plausible translation, for which a "no map" relation is used. Different use cases for maps may require other types of map relations, but are ultimately defined by the organization's desired output.

HIM Mapping Scenarios

Many HIM professionals are already engaged in mapping activities. The following brief study of practical scenarios where HIM professionals are likely to be involved in mapping projects can help illuminate this evolving circumstance.

At a fundamental level, development of a facility's charge description master (CDM) is a type of mapping activity. The CDM serves as a file of hospital or outpatient services, procedures, drugs, and supplies that are linked with specific data elements necessary for billing and management reporting. HIM provides a critical role in CDM development today, but should also evolve into roles that use data for better support of disease, risk, and outcomes management, as well as for business decisions.

The transition from ICD-9-CM to ICD-10-CM/PCS creates the need for organizations to anticipate and create business rules for ICD-10 implementation parallel to those embedded with ICD-9 codes. Payer organizations create internal rules for claims payment, identification of potential fraud and abuse, disease management, wellness programs, post-payment reviews, and other functions. HIM professionals are aptly suited to help map current logic centered on ICD-9 codes since they understand at a practical level how codes are abstracted from the patient record, inclusion and exclusion rules within the classification, and documentation requirements. Currently, payer organizations are actively seeking HIM professionals to fill this role within their ICD-10 transition teams.

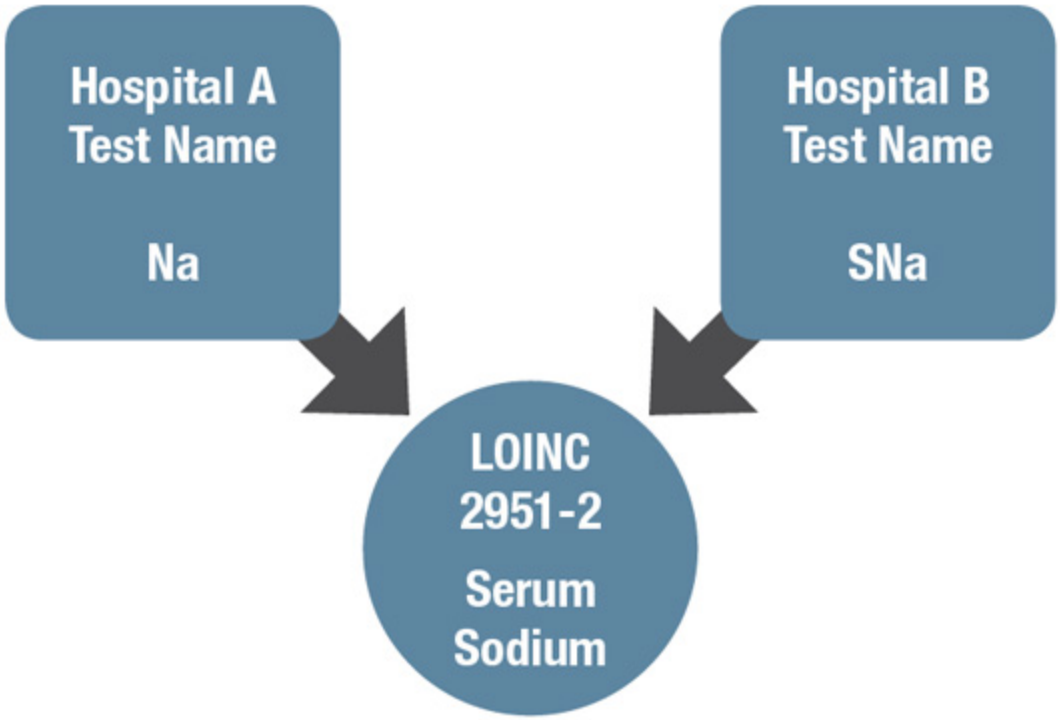
Meaningful use identifies vocabulary standards such as Logical Observation Identifiers Names and Codes (LOINC) for electronic health record representation of laboratory data. Traditionally, facilities have created internal proprietary lab codes for tests performed within the hospital. Within a multi-hospital organization, these vary from facility to facility.

In order to conform to reporting requirements, these local codes must be mapped to their LOINC equivalents. Due to the sheer number of individual tests performed by a facility, these involve large mapping endeavors for which there are limited internal laboratorial resources. The mapping project can be executed by a team comprised of the HIM professional and a laboratory technician that can provide referential support.

These are just a few examples of current industry activities. As healthcare quality initiatives and other programs continue to evolve, so shall the mapping opportunities within the HIM community.

LOINC Standard Mapping

Hospital A's test catalog name is "Na" and Hospital B's test catalog name is "SNa." Both are sodium serum measurements, which can be mapped to the LOINC standard of 2951-2.



Data Analysis Familiar to HIM Professionals

HIM professionals' interaction with clinical data and its exchange began long before any notion of government initiatives were conceived. Abstraction of data from patient records to meet public health and state reporting requirements (i.e., communicable diseases and public safety), for facility-specific risk reporting such as postoperative infections, as well as for reimbursement, is a well-established role within HIM. Many data standards identified in legislative acts like the Health Insurance Portability and Accountability Act-such as CPT, ICD, and HCPCS-are already used in common practice by health information specialists.

Other standards which may not be as familiar to HIM professionals include SNOMED CT, LOINC, and RxNorm. However, a working knowledge of these standards is highly desirable in many healthcare industry roles. It is also critical that content management and mapping best practices are utilized during projects so that quality maps can be produced and maintained over time. The HIM professional's data steward expertise creates a solid foundation on which to develop these additional skills.

Mapping for the Future

Gaining experience and understanding in data and mapping principles can be as simple as seeking additional training. As healthcare initiatives grow and mature, professionals who have made a personal investment in gaining additional mapping, content management, and data analysis skills will be highly sought after in the industry.

Notes

1. International Organization for Standardization. "Mapping of Terminologies to Classifications." 05-31-2010 ISO TC 215/SC N, ISO 2010.

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