

Organizational Track

1 p.m.-2 p.m. Maintenance and Updating

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Terminology Manager Mapping,

SNOMED, International

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Health Data Dictionary

3M



SNOMED CT[®] to ICD-9- CM

Mapping Overview

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Mapping Manager
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SNOMED CT to ICD-9-CM Epidemiological/Statistical Map Mapping (current)

- The SNOMED CT to ICD-9-CM mapping provides an *approximation* of the closest ICD-9-CM code or codes at the highest level of specificity, that best represent the disorder or finding concept *

** It is important to note that this mapping is NOT intended for direct billing or reimbursement without additional authoritative review*

SNOMED CT Source Domains Mapped

- Clinical Findings
 - Disorders
 - Findings
- Context dependent categories:
 - Family history
 - Past history
 - Reasons for visit

Current ICD-9-CM mapping

- ICD-9-CM map advice categories:
 - 0 = Unmappable
 - 1 = 1:1; concepts are identical or included within the ICD-9-CM code description
 - 2 = Narrow to broad; SNOMED is more specific
 - 3 = Broad to narrow; ICD is more specific
 - 4 = Overlap exists and rules are required to correctly map

SNOMED CT to ICD-9-CM Update Process

- Existing mapping
 - Updated 2x / year
 - ICD-9-CM changes
 - (April and October as changes may apply)
 - Updated 2x year with new concepts added (January and July releases)
 - Currently comprised of 93,000+ mapped concepts
 - Part of US Agreement

SNOMED CT to ICD-9-CM

Use Case Approach

- Documented Use Cases (new)
 - Reimbursement
 - Epidemiology
- Mapping Rules (new)
- External Validation Process (new)
- Source Domains:
 - Clinical Findings (includes Disorders & Findings)
 - Context dependent categories: Family history, Past history, Reasons for visit
 - Morphology codes*

*To be developed for future epidemiology map

ICD-9-CM Revisions

- Two different user communities, therefore segregate mapping into two use cases:
 - Epidemiology/statistical use case (future)
 - ED diagnosis reporting
 - Case finding for research
 - Ambulatory care reports for NCQA
 - Cancer registry data from tissue pathology reports
 - Reimbursement use case (current development)
 - Candidate billing diagnoses from problem list from SNOMED CT clinical data
- Improved definitions and procedures that acknowledges the fundamental differences between reference terminology and classification scheme
 - “Equivalence” is often uncertain

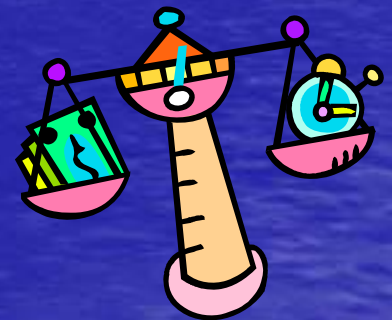
In Development

Mapping to ICD-9-CM is NOT Context-Independent

- Clinical use: SNOMED CT concept
- Context free; concept based map (concept classification)
- Patient context (demographics and co-morbidities)
- Clinical care context (encounter and episode data)
- Administrative use: ICD-9-CM code

CAP Process: ICD-9-CM Rules Based Map to Support Reimbursement

- Manage use case:
 - Reorganize SNOMED-ICD-9-CM map for specific case of reimbursement support; expose all assumptions and optimize codes for this use case
- Manage context:
 - Extend one-to-one map to include ICD code-level exclusions and incorporate these as sequentially evaluated text-based rule statements in order to manage patient record context



New ICD-9-CM Categories Support Rule Based Mapping

Statistical Use Case	Reimbursement Use Case
Category 0: Outside of ICD scope	Category 0: Outside of ICD scope
Category 1: Properly classified within ICD	Category 11: Properly classified and specific for reimbursement
	Category 12: Properly classified but non-specific for reimbursement
Category 2: Properly classified but not valid as primary code	Category 20: Not valid as primary: Fully classified but is referenced in the authoritative source as a manifestation code, an additional or secondary diagnosis code
	Category 22: Properly classified but not valid as primary diagnosis
Category 3: Requires additional patient characteristics or information to classify	Category 31: Requires additional patient characteristics, otherwise sufficiently specific for reimbursement
	Category 32: Requires additional patient characteristics, non-specific for reimbursement

Rule-based Mapping

CTID	CONCEPT	OPT	GRP	CAT	RULE	ICD
2520005	AIDS with volume depletion (disorder)	1	1	11	Always	042
		2	2	31	IFA postoperative hypovolemic shock	998.0
		3	2	31	IFA traumatic loss of fluids	958.4
		4	2	11	Otherwise	276.5
225565007	Perineal pain (finding)	1	0	32	IF Female gender	625.9
		2	0	32	IF male gender	608.9
		3	0	0	Otherwise	""

Text-based rules embody all code-level source exclusions in ICD-9-CM reference

Update and Maintenance Plan

- Reorganization of 93,000 maps +, to rules based format to support reimbursement
- Schedule upon release:
 - ❖ Updated 2x / year
 - ICD-9-CM changes
 - (April and October as changes may apply)
 - ❖ Updated 2x year with new concepts added (January and July releases)

Maintenance and Update Issues for Clinical Vocabulary Mapping

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Objective

To Maintain the integrity of the mapped data while providing a timely and complete update of new, 'deleted', and/or changed terms and relationships

Basic Assumptions

- Maintenance and update issues are different for legacy data versus standard terminologies and classifications
- The process of mapping is dynamic
- No two systems or mapping processes are alike

General Issues

- Quality assurance
- Log of work assignments
- Version control

Quality Assurance

- Ongoing quality checks (test suite)
- Test and development environments
- Standard operating procedures
- Backup and redundancy
- History logs
- Security of access to data

Log of Work Assignments

- Maintain log of requests
- Monitor work assignments

Version Control

- Schedule/frequency of version updates
- Documentation of content
- Distribution/access to updates
- Full replacement or changed/updated data only

Updating of Standards

- Source of data
 - Proprietary
 - Public domain
- Format of data
 - Electronic (pdf, text)
 - Hard copy (paper)

Updating of Standards Continued

- Notification of changes/updates
 - Email
 - Subscription
 - Monitor website
 - Letter/mail
- Tracking data
 - Schedule of updates
 - Version control

Legacy Data

- Updating issues will be dependent upon the type of legacy data being updated and/or maintained
 - Laboratory systems
 - Pharmacy systems
 - Users/providers
 - Locations

Legacy Continued

- Management of requests (ad hoc or scheduled)
- Communication with department or site
- Question and answer policy
- Timing (proactive requests)

Conclusion

- Lack of control over maintenance and updates can result in incorrect data being stored on a patient record
- Good maintenance and update procedures and practices will assure that the integrity of the mapping remains intact



Clinical Vocabulary Mapping Methods Institute
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