



Perspectives on ICD-10 and SNOMED in the era of Meaningful Use

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Standards in Healthcare

- **Why do we need standards in healthcare?**
- Terminology and coding standards ensure consistency in exchanging and understanding clinical data
- Standards facilitate interoperability and data sharing across and between healthcare enterprises
- Clinical information captured and coded in a standardized way is essential for:
 - Quality management
 - Care process management
 - Outcome management
 - Financial and billing management
- **Very important:** Collect enough information on the FRONT END to meet the needs at the BACK END



Standards in Healthcare

- **Some you are familiar with:**
- CPT (Current Procedural Terminology)
- ICD-9 (International Classification of Diseases)
- HL7 (Health Level 7 – Technical Interface Standard)

- **Some that might be new to you:**
- LOINC (Logical Observation Identifiers Names and Codes – Laboratory Standard)
- RxNorm (Standardized Drug Nomenclature)
- **SNOMED CT (Systematized Nomenclature of Medicine Clinical Terms)**



Granularity

- **ICD-9:** Used to classify or condense an entire patient encounter with as few as one or two assigned codes
 - no longer adequately reflects advances in disease detection and treatment, such as biomedical informatics, genetic research and international data-sharing.
- **ICD-10:** Is a full replacement code set utilizing new taxonomies to provide greater detail and granularity when coding diagnoses and inpatient hospital procedures.
 - it explodes the original volume of approximately 18,000 codes to over 140,000 and also changes the underlying structure of the codes.
- **SNOMED CT:** Enables a complete description of the entire clinical episode, represented by multiple codes, giving clinicians and others a full understanding of the patient encounter



Granularity

ICD-9 Example:

- 782.0 Disturbance of skin sensation
- Anesthesia of skin
- Burning or prickling sensation
- Hyperesthesia
- Hypoesthesia
- Numbness
- Paresthesia
- Tingling





Granularity

SNOMED CT Example:

- Skin sensation disturbance 80910005
- Anesthesia of skin 271805006
- Sensation of burning of skin 102604002
- Prickling sensation 30961001
- Hyperesthesia 14151009
- Hypoesthesia 39794008
- Numbness of skin 102603008
- Paresthesia of skin 102602003
- Tingling of skin 274676007



October 1, 2013 (maybe?)

ICD9 CM

- Since 1979
- Lacks specificity and detail
- No longer reflects current knowledge of disease
- Insufficient structure for reporting
- Running out of codes

ICD10 CM

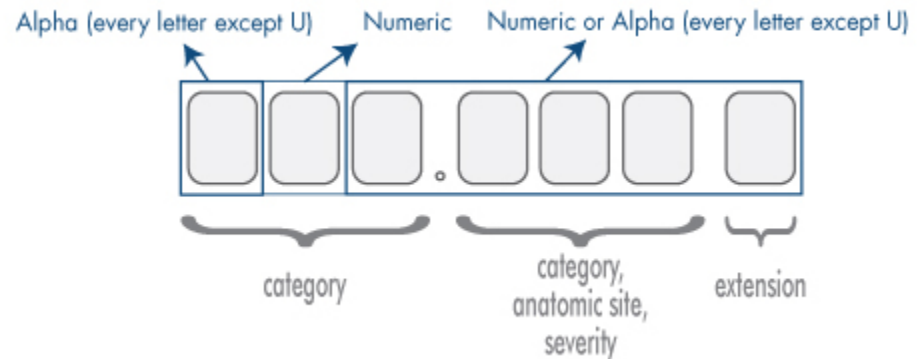
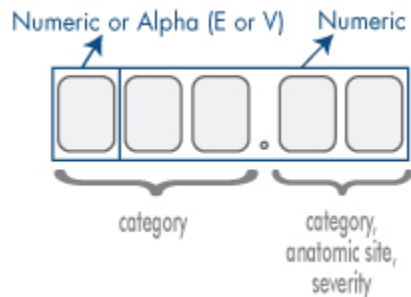
- Provides more detailed and clearer clinical picture of patient
- Expands injury coding
- Increased number of codes and categories
- Greater accuracy

There is very little 1 to 1 matching between ICD-9 and ICD-10 (about 5%)




Comparison

ICD 9 CM Diagnosis Codes	ICD 10 CM Diagnosis Codes
3-5 characters in length	3-7 characters in length
~ 14 000 codes	~ 69 000 codes
First digit may be alpha or numeric Digits 2-5 numeric	First digit is always alpha Digits 2-7 are alpha or numeric
Lacks detail and laterality	Very specific and has laterality





Meaningful Use: Vocabulary

- **Vocabulary suggested by HIT Standards Committee**
 - **SNOMED-CT for problem lists**
 - **LOINC for lab tests**
 - **RXNorm for medication names**
 - **UCUM for units of measure**
 - **CVX for immunizations**
 - **ICD-10-CM for encounter diagnosis and cause of death**
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Clinical Terminology Standards in Meaningful Use of EHRs

STANDARDS WILL FACILITATE:

- Generate lists of patients by specific conditions
- Report hospital quality measures
- Implement one clinical decision support rule
- Provide patients with an electronic copy of their: problem list, medication list, allergy list, lab results, procedures, and discharge summary
- Capability to exchange key clinical information (see above) among care providers and authorized entities electronically
- Submit data to immunization registries and public health agencies