

## Terminology in Healthcare and Public Health Settings

### Unit 17-Clinical Vocabularies

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*"In attempting to arrive at the truth, I have applied everywhere for information, but in scarcely an instance have I been able to obtain hospital records fit for any purpose of comparison...if wisely used, these improved statistics would tell us more of the relative value of particular operations and modes of treatment than we have any means of obtaining at present."*

Nightingale F. Notes on Hospitals. London: Longman, Green, Longman, Roberts, and Green, 1863, page 176. Available from <http://pds.lib.harvard.edu/pds/view/7024419?n=208>.



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## Interoperable Systems

- Exchange data seamlessly between systems
- Must have data coded in a standard format that matches data structures in other systems to accomplish data exchange
- Use standardized terminologies

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## Terminology

- Special technical language used in a particular field of interest; also called language for special purposes (LSP)
- Set of terms representing the system of concepts of a particular subject field (ISO)



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## Standardized Terminologies

- Allow the tracking of adverse events
- Provide documentation of services for reimbursement
- Advance the science of care delivery
- Allow the comparison of data captured in different systems for outcome management
- Facilitate the linkage of diagnosis-interventions-outcomes

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## Classifications

- Taxonomic structures most commonly used in healthcare are classification systems
- Non-combinatorial hierarchical languages designed to categorize objects
- Objects classified are generally patient diagnosis and care interventions and implemented as interface terminologies at the point of care (i.e. ICD-9)

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## Common Medical Terminologies

- Current Procedural Terminology (CPT)
- Diagnosis Related Group (DRG)
  - Medicare Severity Diagnosis Related Group (MS-DRG)
- International Classification of Diseases (ICD)
- International Classification of Diseases-10-Clinical Modification (ICD-10-CM)



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## Common Nursing Terminologies

- North American Nursing Diagnosis Association (NANDA)
- Clinical Care Classification (CCC)
- Nursing Intervention Classification (NIC)
- Perioperative Nursing Data Set (PNDS)
- International Classification for Nursing Practice (ICNP®)

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## National Committee on Vital and Health Statistics

- Health Level-7 for
  - Messaging
  - Clinical encounters
- SNOMED CT for
  - Diagnosis and problem list
  - Non-laboratory procedures and interventions
  - Anatomy and nursing data

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## SNOMED CT

- Systemized Nomenclature of Medicine -- Clinical Terms
- An agreement has been signed between the US government and the College of American Pathologists allowing free distribution of SNOMED CT in the US

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## Health Level 7

- “Level seven” refers to the highest level of the International Organization for Standardization (ISO) terminology model (for exchange of information between information systems)
- Addresses
  - Definition of the data to be exchanged
  - Timing of the interchange
  - Communication of certain errors to the application

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## Logical Observation Identifier Name Codes

- Originally developed to provide a standard set of codes and names for the electronic reporting of laboratory results
- LOINC has expanded to include items related to the measurement of clinical observations, such as blood pressure and symptoms

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## Summary

- Data exchange between interoperable systems requires that data be formatted in a standard manner
- Standardized healthcare terminologies
  - Allow for the design of interoperable information systems
  - Describe patient diagnoses, interventions, and outcomes

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