

Imran Mohammed Yousuf

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Cult vs Community

The healthcare industry has a lot of aggregated data and even though most of the data is required for patient safety, improvements and care, it is very difficult to transfer these data from one system to another due to the cost and feasibility associated with it. The technology is not limited and the transfer of data is possible but having no standardized data coding standards prevents information sharing within systems. The lack of data coding standardization has also affected the reuse of clinical data to meet the broad range of patient safety and quality reporting requirements (1), which is crucial for the health industry.

Each collection software has its own standards of recording data which makes it incompatible with other systems due to its various different codes and terms. In order to fix such problems, data standardization is needed. First, to streamline the data in the health industry we have to determine what data has to be collected and exchanged. Secondly, to transfer the data to another system it has to be properly encoded due to the security and safety of the clinical information. In further steps, it is also important to streamline how data is represented and what terminology is used in order to avoid difference and confusion between the data. Adopting such strategies has helped clinical health research facilities with EHR interoperability to exchange and collaborate data. But the pitfall of using coding standards is that more resources and training is needed and due to the multiple standards already present makes the data incompatible with other standards. The goal is to use a single standardized method for data coding so that the health community can benefit from it. The three coding standards which can provide benefit and has a potential to improve in the future are SNOMED, LOINC, CPT.

SNOMED, also known as, *Systemized Nomenclature of Human and Veterinary Medicine*, was developed by the college of American Pathologists as an inventory of medical term and concepts for human and veterinary medicine. It was designed to be the primary support for knowledge-based systems, providing concept oriented reference terminology that can be defined as the rules for automated generation and classification of new concepts along with attaching atomic concepts to from expressions. It is based on a formal terminology model that provided direct definitions for health care terminologies and contained granular concepts for representing clinical and patient safety information. SNOMED is also designed to express the clinical guidelines and datasets for the IOM priority conditions and a key source for the development of new concepts for both clinical and safety data. The future for SNOMED seems bright for it enriched database of over 300,000 fully specified concepts and 450,000 (2) supporting descriptions. SNOMED model was submitted to the ANSI for an approval as a standard and in fact, as a part of the UMLS, SNOMED has showcased as the core clinical reference terminology for the Department of Health and Human Services in 2003.(1)

LOINC, also known as, *Logical Observation Identifiers, Names, and Codes*, was developed by the Regenstried Institute. LOINC is very popular and adaptable coding framework that provides a set of universal names and numerical identifier for laboratory and clinical observations in a database structure without hierarchies. Although it is mainly popular in laboratories for clinical research, it is gaining

popularity in other fields. The database and library for LOINC is rich with 30,000 codes and in the future, will support further codes and structures.

CPT, also known as, *Current Procedural Terminology*, was developed and maintained by the American Medical Association. CPT unlike LOINC is not mostly used in laboratories and clinical research but is widely used for physician services in outpatient office practices. It is in fact, known as the official code set for physician services. Even though CPT may not contain a lot of codes outside patient services, it relies on Health Care Financing Administration Common Procedure Coding System for product supplies, local codes agencies and enriches the standards with 7300 terms (3) to help the doctor. The future for CPT seems bright as most doctors have adapted this standard and is likely to remain for a while due to its comparability with other standards such as HCPCS.

The health care systems contain a lot of useful data and if properly used can bring groundbreaking breakthroughs. But in order to have access to the data, the community has to combine the standards of data coding into one. Although the three-data coding process is promising, it will be helpful if everyone is required to use and practice one standard coding method. Instead of multiple platform and standards which has terms and concepts scattered, the health system should centralize a database of terminology. It seems as if each department introduces its own standard and isolates itself from the rest which helps to make a cult but not a community. The health care system should combine all the three standards to one and have physician, laboratories and clinical researchers work together as a community.

Works Cited

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