

# eHealth Terminology

## Definition of Terms

### **Admission-Discharge-Transfer (ADT)**

A component of a hospital's computer system that provides updated information whenever a patient is admitted to the hospital, discharged from the hospital, or transferred to a new room or bed within the hospital.

### **Agency for Health Research and Quality (AHRQ) - <http://healthit.ahrq.gov/>**

AHRQ's initiative on health information technology (health IT) is a key element to the nation's 10-year strategy to bring health care into the 21st century by advancing the use of information technology. The AHRQ initiative includes more than \$260 million in grants and contracts in 41 states to support and stimulate investment in health IT, especially in rural and underserved areas. Through these and other projects, AHRQ and its partners will identify challenges to health IT adoption and use, solutions and best practices for making health IT work, and tools that will help hospitals and clinicians successfully incorporate new IT.

### **American Health Information Community (AHIC) - <http://www.hhs.gov/healthit/community/background/>**

A federally chartered commission that provides input and recommendations to HHS on how to make health records digital and interoperable also assures that the privacy and security of records are protected.

### **American Health Information Management Association (AHIMA) - <http://www.ahima.org/>**

A professional community that strives to improve health care by advancing best practices and standards for health information management; also the trusted source for education, research, and professional credentialing.

### **American National Standards Institute (ANSI) - <http://www.ansi.org/>**

An organization which works to create and set standardization criteria for technology procedures and devices in the United States. ANSI accredits other standardization organizations as well, including HL7 and NCPDP.

### **ASTM International - <http://www.astm.org/COMMIT/COMMITTEE/E31.htm>**

ASTM Committee E31 on Healthcare Informatics develops standards related to the architecture, content, storage, security, confidentiality, functionality, and communication of information used within healthcare and healthcare decision making, including patient-specific information and knowledge.

### **Barcode Medication Administration (BCMA)**

System involving the use of a hand-held barcode scanner and mobile computer to reduce the incidence of errors during medication administration. The system is initiated when a nurse scans a barcode located on a patient's wristband, as well as the barcode on any medication he or she is attempting to administer. This information is then transmitted to the mobile computer, which will in turn alert the nurse if the system detects the wrong patient, medication, dose, route, or time of medication administration.

**Best of Breed**

A healthcare automation implementation model in which the appearance of integration is achieved by the interfacing of a variety of dedicated, standalone departmental and administrative computer systems across a network backbone. The HL7 messaging system was invented to facilitate the operation of this model. As distinct from an integrated healthcare system, the Best of Breed architecture encourages each administrative entity in a healthcare enterprise to purchase the system that best fits their needs and then have that system communicate essential information to other systems via interfaces using the HL7 message set.

**Certification Commission for Healthcare Information Technology (CCHIT) -**

<http://www.cchit.org/>

The Certification Commission is a recognized certification body for electronic health records and their networks. It is a voluntary, private-sector organization created by three leading HIT industry associations (American Health Information Management Association {AHIMA}, Healthcare Information and Management Systems Society {HIMSS} and National Alliance for Health Information Technology {NAHIT}) for the purpose of setting performance standards for HIT systems and certifying commercial systems to those standards. CCHIT's mission is to accelerate the adoption of health information technology by creating an efficient, credible and sustainable certification program.

**Clinical Data Exchange (CDE)**

A project designed to share clinical information electronically among a group of health care stakeholders (for example, hospitals, physicians, government and payers) in a community.

**Clinical Decision Support System (CDSS)**

A computerized system that aims to assist healthcare providers in making appropriate decisions regarding patient care. For pharmacy, this can include the generation of alerts when a drug interaction, incorrect dose, duplicate therapy, contraindication, or allergy is detected.

**Community Patient Index (CPI)**

A central data base that contains patient demographic information collected from multiple stakeholder systems for the purpose of uniquely identifying a patient within a Clinical Data Exchange. May also be referred to as a Master Patient Index (MPI) or an Enterprise Master Patient Index (EMPI).

**Committee on Operating Rules for Information Exchange (CORE) -**

<http://www.cagh.org/benefits.php>

An entity comprised of 100 industry stakeholders that seeks to reach consensus on more uniform versions of the HIPAA transactions. The goal is to eventually enable these transactions, such as claims, eligibility, and claim status, preauthorization and remittance advice, to be conducted as easily as an ATM transaction.

**Computerized Provider Order Entry (CPOE)**

A computer system that allows for the direct entry of medical orders by physicians and other healthcare providers. The CPOE system enables physician/healthcare provider medication and health procedure orders to be checked for incorrect drugs, doses, and routes of administration, as well as for any allergies, drug interactions, and contraindications. If the computer system detects any of these problems, an alert is generated to make the provider aware of the issue. The primary goal of CPOE is to reduce medication errors, and therefore increase patient safety. Also referred to as Computerized Physician Order Entry or simply Provider Order Entry (POE).

**Current Procedural Terminology (CPT)**

A list of unique billing codes for medical services and procedures rendered to patients. Three categories of CPT codes exist. Category I codes represent common services and procedures performed in many different practice settings. They consist of a five-digit number followed a descriptive term. An example would be “12345 – HIV Blood Test”. CPT Category II and III codes represent services and procedures which are not yet commonly performed in clinical practice. They consist of a four-digit number, followed by a letter and a descriptive term. An example would be “4321B – descriptive term”. Current Procedural Terminology is a code set standard of HIPAA, Medicare, and Medicaid and is maintained by the American Medical Association.

**Database**

A computerized collection of information, or data, organized in manner that allows information to be accessed and retrieved easily, effectively, and efficiently.

**Electronic Health Record (EHR)**

A digital record compiled from multiple disparate clinical systems, creating a longitudinal and aggregate display of those data for the patient.

**Electronic Medical Record (EMR)**

A digital record found in a unique care setting (e.g., the physician office or the hospital) and containing data specific to that care setting.

**Electronic Medication Administration Record (eMAR)**

A computerized version of a paper medical record, containing information about a patient's medications, diagnoses, and health information.

**Electronic Prescribing (e-prescribing, E-Rx)**

The ability of a physician or other authorized clinician to access patient to transmit a prescription electronically to a patient's pharmacy of choice. Allergy lists, prescription history, and payer formularies are normally accessed and reviewed before the prescription is transmitted.

**Encryption**

The converting plaintext information into code in order to prevent the unauthorized viewing of private information.

**EPCglobal North America - <http://www.epcglobalus.org/>**

EPCglobal North America brings together companies from many industries to achieve mass adoption of Electronic Product Code™/Radio Frequency Identification (EPC/RFID) technology. These converged communities are rapidly developing and deploying the EPC/RFID technology standards that allow organizations to exchange data across company, industry, and international boundaries.

**GS1 US - <http://www.gs1us.org/>**

Is an organization that develops standards and services for the effective management and control of the supply chain. GS1 US is formerly the Uniform Code Council (UCC). Their global standards guarantee that products, assets, services and locations can be uniquely identified virtually anywhere in the world, and that the data and processes used to facilitate a healthy, efficient supply chain gain the benefit of standardization, synchronization, classification, and coordination among trading partners, regardless of proximity.

**Health Information Exchange (HIE)**

A term commonly used to describe a Regional Health Information Organization. HIEs were the precursor to RHIOs and the terms can be used interchangeably when discussing RHIOs.

**Health Information Management Systems Society (HIMSS) - <http://www.himss.org/>**

The Healthcare Information and Management Systems Society (HIMSS) is the healthcare industry's membership organization exclusively focused on providing leadership for the optimal use of healthcare information technology (IT) and management systems for the betterment of healthcare.

**Health Information Systems (HIS)**

An information system used within a healthcare organization in order to promote efficient communication, documentation, and record keeping within the organization.

**Healthcare Information Technology (HIT)**

The comprehensive electronic management of clinical information, enabling improvements in the quality of health care, the prevention of medical errors, reductions in the cost of care, increased administrative efficiencies, decreases in paperwork and expanding access to affordable care.

**Healthcare Information Technology Standards Panel (HITSP) - <http://www.hitsp.org/>**

The Healthcare Information Technology Standards Panel (HITSP) is a cooperative partnership between the public and private sectors. The Panel was formed for the purpose of harmonizing and integrating standards that will meet clinical and business needs for sharing information among organizations and systems.

**Health Industry Business Communications Council (HIBCC) - <http://www.hibcc.org/>**

It is an industry-sponsored and supported nonprofit organization. As an ANSI-accredited organization, their primary function is to facilitate electronic communications by developing appropriate standards for information exchange among all health care trading partners. Their broad mission has consistently expanded to meet industry requirements and has involved HIBCC in a number of critical areas, including electronic data interchange message formats, bar code labeling data standards, universal numbering systems, and the provision of databases which assure common identifiers.

**Health Insurance Portability and Accountability Act (HIPAA) - <http://www.hhs.gov/ocr/hipaa/>**

Passed by Congress in 1996, HIPAA ensures the security and privacy of health information. The act mandates the promulgation of regulations for the use and release of Protected Health Information (PHI). The Department of Health and Human Services created (and maintains) the regulations for HIPAA and has limited power to enforce them. It is the Security and Privacy regulations mandated by HIPAA that create the concept of protected healthcare information. Note also that the scope of "security" under the HIPAA Security Regulations includes not only the limitation of access to but also the maintenance of availability of electronic health records.

**Health Level 7 (HL7) - <http://www.hl7.org/>**

HL7 is a standardized set of messages and vocabulary for communicating clinical and administrative information between disparate healthcare systems.

**Human-Computer Interface**

Any combination of hardware and/or software systems that permit a human to interact with a computer.

## **Informatics**

The science of applying of computer technology to the management and organization of information. Informatics can be further differentiated by area of application, including areas such as pharmacy, dental, biomedical, nursing, research, medical, and healthcare.

## **Informatics Project Life Cycle**

The steps and events that occur from the time an informatics project is planned and conceived until its installation/implementation. As suggested by the name, the process is cyclic to the extent that experiences during the implementation of a project create new requirements that can begin the development cycle all over again.

## **Institutional Review Board (IRB)**

A committee responsible for reviewing an institution's research projects involving human subjects. The IRB aims to protect the rights and safety of research participants. IRBs are regulated by the Office for Human Research Protections within the Department of Health and Human Services.

## **Integrated Healthcare System**

The incorporation of many of the small, independent computer systems functioning within a healthcare organization into one, large, computer system encompassing many, if not all, of the departments and areas of the organization. As differentiated from "Best of Breed", an integrated healthcare system provides automation services to an entire healthcare operation or enterprise from a single, integrated, monolithic system, typically architected around an electronic health record.

## **Integrating the Healthcare Enterprise (IHE) - <http://www.ihe.net/>**

It is a global initiative that creates the framework for passing vital health information seamlessly – from application to application, system to system, and setting to setting – across multiple healthcare enterprises. IHE brings together healthcare information technology stakeholders to implement standards for communicating patient information efficiently throughout and among healthcare enterprises by developing a framework for interoperability. Because of its proven process of collaboration, demonstration and real-world implementation of interoperable solutions, IHE is in a unique position to significantly accelerate the process for defining, testing and implementing standards-based interoperability among electronic health records systems.

## **Interface Engine**

An interface engine is a computer-based appliance that facilitates the distribution of healthcare information among the various computer systems in a best-of-breed architecture. This appliance limits the number of interface connections each computer system must have and performs any necessary message reformatting that may be required to make a message readable to any particular system. Rather than having a separate interface connection to each of the various other computer systems with whom it may have discourse, each computer system in the network has a single interface connection to the interface engine over which it sends and receives information to/from the other computer systems on the network.

## **Interfaced Healthcare System**

A system of computer software programs used to enhance the delivery of healthcare by allowing many different programs to function together as one system. Also known as a "best of breed" system.

### **Internet Protocol (IP) Address**

An Internet Protocol (IP) address is a numerical identification (logical address) that is assigned to devices participating in a computer network utilizing the Internet Protocol for communication between its nodes.

### **Interoperability**

The “ability of health information systems to work together within and across organizational boundaries in order to advance the effective delivery of healthcare for individuals and communities. (HIMSS definition)

### **Logical Observation Identifiers Names and Codes (LOINC) - <http://loinc.org/>**

A system of nomenclature for clinical laboratory tests used to facilitate the exchange of laboratory-type results. LOINC codes are universal codes and can therefore be efficiently and effectively transferred between computer systems in many different healthcare organizations. The LOINC database contains data categories such as hematology, microbiology, toxicology, vital signs, blood counts, and many more. The system was developed in 1994 by the Regenstrief Institute, an informatics and healthcare research organization.

### **Medication Robotics**

Devices created and programmed to carry out intense, precise, or tedious tasks in an attempt to increase the speed, efficiency, and accuracy of the process. In pharmacy, this may include machines capable of counting, filling, and labeling medication prescriptions.

### **Medical Dictionary for Regulatory Activities (MeDRA) -**

<http://www.meddramsso.com/MSSOWeb/index.htm>

A standardized dictionary of medical terminology used to categorize medical information. MeDRA was created in order to internationally standardize medical terminology for the regulation of medical products.

### **Multimedia**

Technology that allows many different forms of media, such as movies, CDs, music, and the internet, to be combined and used together.

### **National Council for Prescription Drug Programs (NCPDP) - <http://www.ncpdp.org/>**

A not-for-profit organization, accredited by ANSI, which represents pharmacists from every aspect and division of the pharmaceutical industry. NCPDP develops standards for the transfer and exchange of data to and from every pharmacy and pharmacy-related organization within the healthcare industry.

### **National Health Information Network (NHIN) - <http://www.nhin.com/>**

A “network of networks”, virtual information exchange mechanism making patient health information available online to health care entities when and where they need.

### **New York eHealth Collaborative (NYeC) - <http://www.nyehealth.org/>**

NYeC (pronounced "nice") was founded by health care leaders across NY state, with leadership and support from the NYS Department of Health, as a public-private partnership that will serve as a focal point for health care stakeholders to build consensus on state HIT policy priorities, and collaborate on state and regional HIT implementation efforts.

**Ninth International Classification of Diseases (ICD-9) - <http://www.cdc.gov/nchs/icd9.htm>**

A coding system for medical diagnoses, signs, symptoms, and procedures used for reporting mortality information to the World Health Organization (WHO). Every diagnosis, sign, symptom, and procedure is given a unique number code, up to six digits long, used for classification purposes.

**Office of National Coordinator for Health Information Technology (ONCHIT) -**

<http://www.hhs.gov/healthit/onc/mission/>

Serves as the Health and Human Services Secretary's principal advisor on the development, application, and use of health information technology.

**Personal Health Record (PHR)**

A digital record that is patient-controlled, with clinically relevant information populated from multiple sources, including self-reported, administrative and possibly clinical data sources. Relevant information would include an individual's active medication list, a diary of finger stick glucose or blood pressure values, symptom-related journal entries, copies of results reports, prior patient instructions, and imaging studies. An electronic PHR (ePHR) might include all of the above elements and additional electronic health tools, such as secure patient provider messaging, patient-specific and context-sensitive information, and e-services such as prescription renewal, appointment scheduling, and other applications.

**Pay-for-Performance (P4P)**

An emerging movement in health care in which providers are rewarded for the quality of healthcare services they deliver. Pay for performance systems link additional compensation to measures of work quality or goals. Medicare has various P4P initiatives underway, seeking to improve quality and avoid unnecessary health care costs.

**Point-of-Care (POC) Testing**

Laboratory-type testing, completed with the use of portable instruments, at the point where patient care is given, whether that be at the bedside, in a patient's home, in the pharmacy, at the physician's office, etc. POC testing allows smaller samples to be used and provides rapid results, allowing for decisions about a patient's healthcare to be made quickly.

**Record Locator Service**

Data elements within a Community Patient Index (CPI) that identify which participants in a Clinical Data Exchange house clinical information on a particular patient.

**Regional Health Information Organization (RHIO)**

A multi-stakeholder organization formed for the purpose of enabling its participants to have online access to a patient's electronic clinical data in order to promote improvements in healthcare quality, safety and efficiency. They form important links among key health care industry stakeholders: providers, health plans, governments, and consumers. Officials from the U.S. Department of Health and Human Services see RHIOs as the building blocks for the National Health Information Network (NHIN). When complete the NHIN will provide universal, secure access to electronic health records.

**RxNorm - <http://www.nlm.nih.gov/research/umls/rxnorm/>**

Created by the National Library of Medicine, RxNorm is a standardized system of nomenclature for prescription and some over-the-counter drugs whose purpose is to facilitate the easy exchange of medication information between various healthcare organizations. RxNorm

provides a standardized classification of drug names, including active ingredient, strength, and dosage form.

### **Spreadsheet**

A computer document that stores data in a grid-type format using columns and rows. A spreadsheet is composed of many small boxes, known as cells, and is capable of performing many various types of mathematical calculations.

### **Structured Query Language (SQL)**

A standardized query, or “question”, language used for efficiently retrieving information from a database. SQL is regulated by the International Organization for Standardization (ISO) and the American National Standards Institute (ANSI). Now contains structures for virtually all primary database operations including adding, changing and deleting fields and records from a database. SQL operates on the presumption that the database(s) to which it connects are relational databases or can present themselves as relational databases according to the Open Database Connectivity (ODBC) standard. As such, it is at least theoretically database, programming language and operating system independent. Virtually all modern databases provide a SQL interface to their database.

### **Systemized Nomenclature of Medicine (SnoMed) -**

[http://www.cap.org/apps/cap.portal? nfpb=true& pageLabel=snomed\\_page](http://www.cap.org/apps/cap.portal? nfpb=true& pageLabel=snomed_page)

A standardized medical terminology system that encompasses many areas of healthcare, including diseases, symptoms, medications, and medical procedures. The objective of SnoMed is to create a consistent method of storing, accessing, and indexing clinical information and to provide convenient access to this information across many healthcare settings.

### **Unified Medical Language System (UMLS) - <http://www.nlm.nih.gov/research/umls/>**

A system created by the National Library of Medicine that aims to develop computer systems that can comprehend the meaning of medical and healthcare terminology. The UMLS encompasses three main Knowledge Sources, or databases. They are Metathesaurus, a vocabulary database, the Semantic Network, a categorizing database, and the Specialist Lexicon, a grammar and vocabulary database.

### **Virtual Private Network (VPN)**

A system of firewalls, authentication certificates, and secure login codes that allows authorized users to access an organization’s private network and resources from remote locations across the Internet. VPNs effectively create information tunnels within the overall structure of the internet through which data can securely pass, as if the user were working on a terminal physically connected to the intranet of a business.

### **Web Portal**

A site on the Internet that allows users to view selected content that exists in multiple different locations (for Yahoo users, My Yahoo is an example of a Web Portal). A portal normally accesses multiple distributed applications, frequently using middleware to provide the interface between those applications and the portal.