# Medical Classification and Coding Systems
(in order of development)

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<th>Coding System</th>
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| London Bills of Mortality                               | • Developed during the latter part of the 16th century  
• Considered the first classification system  
• Bills were collected and collated by parish clerks (with no medical training).                                                                 |
| *Nosologia Methodica*                                   | • Medical classification system developed in the mid-1700s by François Bossier de Lacroix (Sauvages).                                                                                                         |
| Bertillon International Statistical Classification of Causes of Death | • Classification of diseases by site, adopted in 1893  
• Subsequent revisions were entitled *International List of Causes of Death* (ICD-1, ICD-2, ICD-3, and ICD-4).  
• Classifications of diseases for morbidity reporting purposes were integrated into subsequent revisions.  
• ICD-5 added mental diseases and deficiency (mental deficiency, schizophrenia, manic depressive psychosis, other mental diseases).  
• In 1946, the World Health Organization (WHO) revised ICD-6 and established an *International List of Causes of Morbidity*. |
| Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death (ICD-6) | • Adopted internationally in 1948 by the First World Health Assembly  
• WHO reviews and revises ICD about every 10 years:  
  o ICD-7 (1955)  
  o ICD-8 (1965)  
  o ICD-9 (1975)  
  o ICD-10 (1989, with WHO member states adopting in 1994)  
• ICD-10 is entitled the *International Statistical Classification of Diseases and Related Health Problems (ICD-10)* and differs from ICD-9, as follows:  
  o More detailed (8,000 categories vs. 4,000 in ICD-9)  
  o Uses 3-digit alphanumeric category codes (vs. 3-digit numeric category codes in ICD-9)  
  o Contains three additional chapters, and other chapters have been reorganized  
  o Cause-of-death titles are modified and conditions reorganized  
  o Some coding rules have changed  
  o Published in three volumes (vs. two volumes in ICD-10)  
  o The United States has not yet adopted ICD-10, and current implementation predictions are 2010. |
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| International Classification of Diseases, Adapted for use in the United States (ICDA) | - The United States adapted ICD-8 in 1966 to include additional detail for coding hospital and morbidity data, abbreviated ICDA-8.  
- In 1968, The Commission on Professional and Hospital Activities (CPHA) of Ann Arbor, Michigan, published a hospital adaptation of ICDA, entitled H-ICDA, which was revised in 1973 as H-ICDA-2.  
- U.S. hospitals were divided in their use of ICDA-8 and H-ICDA (and later H-ICDA-2).  
- Author Green recalls coding inpatient cases for the medical record department using ICD-9-CM in 1979, while her utilization review coordinator coded the same cases according to H-ICDA as required by the county professional standards review organization (PSRO), which monitored the appropriateness, quality, and outcome of the services provided to beneficiaries of the Medicare, Medicaid, and Maternal and Child Health Programs. In 1982, PSROs were replaced by statewide peer review organizations, or PROs. Effective 2002, they are called quality improvement organizations, or QIOs.  
- In 1979, all hospitals were required to adopt the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), which classifies diagnoses (Volumes 1 & 2) and procedures (Volume 3) – all hospitals and ambulatory care settings (including physician offices) use ICD-9-CM to report diagnoses; hospitals use ICD-9-CM procedure codes to report inpatient procedures and services.  
- The National Center for Health Statistics (NCHS) is the federal agency responsible for developing ICD-10-CM. The ICD-10-PCS (Procedure Coding System) was developed with support of the Health Care Financing Administration (now called Centers for Medicare & Medicaid Services) under contract to 3M Health Information Systems.  
- The National Committee on Vital Health and Statistics (NCVHS) serves as a public advisory body to the Secretary of DHHS in the development of ICD-10-PCS.  
- ICD-10-CM and ICD-10-PCS have not yet been adopted for use in the United States. Once the final rule about adopting ICD-10-CM and ICD-10-PCS is published in the Federal Register, providers will have two years to implement the coding systems. The Federal Register is a legal newspaper published every business day by the National Archives and Records Administration (NARA) and is available in paper form, on microfiche, and online. |
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| Diagnostic and Statistical Manual of Mental Disorders (DSM) | • Published by the American Psychiatric Association as a standard classification of mental disorders used by mental health professionals in the United States  
  o DSM (1952)  
  o DSM-II (1968)  
  o DSM-III (1980), and a multiaxial classification was added:  
    ▪ Axis I – mental disorders or illnesses (e.g., substance abuse)  
    ▪ Axis II – personality disorders or traits (e.g., mental retardation)  
    ▪ Axis III – general medical illnesses (e.g., hypertension)  
    ▪ Axis IV – life events or problems (e.g., divorce)  
    ▪ Axis V – global assessment of functioning (GAF) (e.g., occupational)  
  o DSM-III-R (1987)  
  o DSM-IV (1994)  
  o DSM-IV-TR (2000) (Text Revision to correct DSM-IV errors, update codes according to ICD-9-CM annual revisions, and so on)  
  o DSM-V (expected in 2011)  
• Derived from ICD-9-CM, designed for use in a variety of health care settings, and consists of three major components:  
  o Diagnostic classification  
  o Diagnostic criteria sets  
  o Descriptive text |
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| Current Procedural Terminology (CPT) | • Originally published by the American Medical Association (AMA) in 1966  
• Subsequent editions were published about every five years, until the late 1980s when the AMA began publishing annual revisions of CPT-4 (now abbreviated as CPT).  
• The CPT-5 Project was initiated by the AMA in 2000 to address challenges presented by emerging user needs, the Health Insurance Portability and Accountability Act of 1996 (HIPAA), and needed improvements in CPT. The primary goal of the CPT-5 Project was to have CPT chosen by the Secretary of Health and Human Services as the national standard procedure code set for physician services under HIPAA. A Final Rule, issued in the August 17, 2000, Federal Register, named CPT as the national standard code set for physician services. CPT-5 Project recommendations are implemented annually along with code additions, deletions, and revisions.  
• CPT classifies procedures and services.  
• Physicians and ambulatory care settings (e.g., hospital outpatient care) assign CPT codes to report procedures and services.  
• CPT is level I of the Healthcare Common Procedure Coding System (HCPCS). |
| International Classification of Diseases for Oncology, third edition (ICD-O-3) | • First edition of ICD-O was published in 1976, and a revision (primarily of topography codes) was published in 1990  
• ICD-O-3 was implemented in 2001.  
• 10-digit code, which describes the tumor’s primary site (4-character topography code), histology (4-digit cell type code), behavior (1-digit code for malignant, benign, and so on), and aggression (1-digit differentiation or grade code) |
| International Classification of Injuries, Disabilities, and Handicaps (ICIDH) | • Published in 1980, ICIDH classifies health and health-related domains that describe body functions and structures, activities, and participation.  
• In 2001, with publication of its second edition, the name changed to International Classification of Functioning, Disability and Health (ICF).  
• ICF complements ICD-10, looking beyond mortality and disease. |
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<td>HCPCS Level II (national codes)</td>
<td>• Published by a variety of vendors, the coding system is in the public domain, which means it is not copyrighted.</td>
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<td>• Managed by the Centers for Medicare &amp; Medicaid Services (CMS)</td>
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<td>• Classifies medical equipment, injectable drugs, transportation services, and other services not classified in CPT. Physicians in ambulatory care settings use HCPCS Level II to report procedures and services</td>
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<td>• HCPCS Level I local codes were discontinued in 2004. They had been managed by Medicare carriers and fiscal intermediaries (FIs). (Medicare administrative contractors, or MACs, replaced carriers and FIs in 2005.)</td>
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<td>Current Dental Terminology (CDT)</td>
<td>• Published by the American Dental Association (ADA)</td>
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<td>• Through 2004, published as CDT-1, CDT-2, CDT-3, and CDT-4; in 2005, CDT published as an annual revision (CDT-2005), similar to CPT.</td>
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<td>• Classifies dental procedures and services</td>
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<td>• Dental providers and ambulatory care settings use CDT to report procedures and services.</td>
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<td>• CDT codes are also included in HCPCS Level II; they begin with the first digit of D.</td>
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<td>• CDT also includes the Code on Dental Procedures and Nomenclature (Code), instructions for use of the Code, questions and answers, ADA dental claim form completion instructions, and tooth numbering systems.</td>
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<td>National Drug Codes (NDC)</td>
<td>• Published by a variety of vendors, the coding system is in the public domain</td>
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<td>• Managed by the Food and Drug Administration (FDA)</td>
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<td>• Originally established as part of an out-of-hospital drug reimbursement program under Medicare</td>
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<td>• Serves as a universal product identifier for human drugs</td>
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<td>• Current edition is limited to prescription drugs and a few selected over-the-counter (OTC) products</td>
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<td>• Pharmacies use NDC to report pharmacy transactions.</td>
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<td>• Some health care professionals also report NDC on claims.</td>
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| International Classification of Primary Care (ICPC) | * Includes information about new developments in the conceptual basis of understanding general and family practice  
  * Classification is based on the use of standard terminology as defined in the international glossary published by the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) Classification Committee in 1995  
  * Includes information about a number of new initiatives related to classification, such as the Duke/WONCA severity of illness checklist, which enables either individual health problems, or the combined health problems of the patient, to be graded in terms of severity; COOP/WONCA functional status assessment charts allow assessment of functional status of the patient independent of any particular reason for the encounter or health problem (COOP standards for The Dartmouth Cooperative Charts.) |
| Alternative Billing Codes (ABC codes)             | * Alternative Billing Codes (ABC codes) classify services not included in the CPT manual to describe the service, supply, or therapy provided; they may also be assigned to report nursing services and alternative medicine professions.  
  * Codes are five characters in length, consisting of letters, and supplemented by 2-digit code modifiers to identify the practitioner performing the service.  
  * For example, during an office visit, an acupuncture physician assessed the health status of a new client and developed a treatment plan, a process that took 45 minutes. ABC code assigned: ACAAC-1C. (The office visit is coded as ACAAC, and the acupuncture physician is assigned modifier 1C.)  
  * HIPAA authorized the Secretary of DHHS to permit exceptions from HIPAA transaction and code set standards to commercialize and evaluate proposed modifications to those standards; ABC code set was granted that exception in 2003, and the codes are being commercialized and evaluated through 2005.  
  * Intent is for ABC codes to be adopted as part of the electronic code set (as HCPCS Level I and Level II were in 2000) |
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| Health Insurance Prospective Payment System (HIPPS) rate codes | • Alpha-numeric codes consisting of five digits  
• Each HIPPS code contains intelligence, with certain positions of the code indicating the case mix group itself and other positions providing additional information (e.g., information about the clinical assessment used to arrive at the code).  
• Created as part of the prospective payment system for skilled nursing facilities in 1998  
• Additional HIPPS codes were created for other prospective payment systems, including a system for home health agencies in October 2000 and one for inpatient rehabilitation facilities in January 2002.  
• Represent specific sets of patient characteristics (or case-mix groups) on which payment determinations are made under several prospective payment systems  
• HIPPS codes are not assigned from a coding manual; they are created when information for a data set is entered into software.  
• For example, the home health prospective payment system (HHPPS) requires entry of the Outcome and Assessment Information Set (OASIS) data set into grouper software, which generates the 5-digit alphanumeric HIPPS code that is entered on the UB-04 claim. |
| Clinical Care Classification (CCC) System         | • Provides a new standardized framework and a unique coding structure for assessing, documenting, and classifying home health and ambulatory care  
• Previously called the Home Health Care Classification System (HHCC)  
• Consists of two interrelated taxonomies: CCC of Nursing Diagnoses and CCC of Nursing Interventions classified by 21 care components that represent the functional, health, behavioral, physiological, and psychological patterns of patient care  
• The 21 care components serve as a standardized framework for mapping and linking the two interrelated CCC taxonomies to each other and to other health-related classifications, and they are used to track and measure patient/client care holistically over time, across settings, population groups, and geographic locations. |