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International Classification of Diseases, Tenth Revision, Clinical Modification for the Pulmonary, Critical Care, and Sleep Physician

Alan L. Plummer, MD, FCCP

After a patient encounter, the physician uses two coding systems to bill for the service rendered to the patient. The Current Procedural Terminology (CPT) code is used to describe the encounter or procedure. The *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) code is used to describe the diagnosis(es) of the patient. On October 1, 2015, ICD-9-CM coding will end, and all physicians will be required to use a new diagnostic coding system, the *International Classification of Diseases, Tenth Revision, Clinical Modification* (ICD-10-CM). This article describes the new diagnostic coding system and how it differs from the old system. There are resources and costs involved for physicians and physician practices to prepare properly for ICD-10-CM. Similar to other important events, the more thorough the preparation, the more likely a positive outcome will occur. Resource use is very important in preparation for the transition from ICD-9-CM to ICD-10-CM. Greater familiarity with ICD-10-CM plus a thorough, effective preparation will lead to reduced costs and a smooth transition. Coding descriptor changes and additional codes occur in ICD-10-CM for chronic bronchitis and emphysema, asthma, and respiratory failure. These changes will affect the coding of these diseases and disorders by physicians. Because the number of codes will increase more than fivefold, the complexity of documentation to support ICD-10-CM will increase substantially. The documentation in the patient's chart to support the ICD-10-CM codes used will need to be enhanced. The requirement for accurate and comprehensive documentation cannot be emphasized enough. All of the coding and documentation changes will be a challenge to pulmonary, critical care, and sleep physicians. They must be prepared fully when ICD-10-CM coding begins and ICD-9-CM coding stops abruptly on October 1, 2015.

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ABBREVIATIONS: CMS = Centers for Medicare and Medicaid Services; EMR = electronic medical record; ICD = *International Classification of Diseases;* ICD-9-CM = *International Classification of Diseases, Ninth Revision, Clinical Modification*; ICD-10-CM = *International Classification of Diseases, Tenth Revision, Clinical Modification*; ISI = International Statistical Institute; NCHS = National Center for Health Statistics

After a patient encounter, the physician uses two coding systems to bill for the service rendered to the patient. *Current Procedural Terminology, Fourth Edition*,[1] is used to describe the encounter or procedure. The *International Classification of Diseases,*

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AFFILIATIONS: From the Pulmonary, Allergy, Critical Care, and Sleep Division, Department of Medicine, Emory University School of Medicine, The Emory Clinic, Atlanta, GA.

CORRESPONDENCE TO: Alan L. Plummer, MD, FCCP, Pulmonary, Allergy, Critical Care, and Sleep Division, Department of Medicine, Emory University School of Medicine, The Emory Clinic, 1365 Clifton Rd NE, Atlanta, GA 30322; e-mail: aplumme@emory.edu

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Ninth Revision, Clinical Modification (ICD-9-CM)[2] is used to describe the diagnosis(es) of the patient, which supports the medical necessity for the encounter or procedure. At midnight on September 30, 2015, ICD-9-CM coding will end, and, beginning October 1, 2015, all physicians will be required to use a new diagnostic coding system, the *International Classification of Diseases, Tenth Revision, Clinical Modification* (ICD-10-CM).[3] This is an unfunded mandate because no federal funds are available to help defray the cost of implementation. This article describes the new ICD-10-CM coding system, the resources needed to implement it, and how to prepare pulmonologists, critical care, and sleep physicians to use it.

Historical Perspective

The *International Classification of Diseases* (ICD) has evolved over the centuries. The cause of death has always been a source of fascination. In 15th century Italy, city boards of health were instructed to develop death registrations.[4] Over the next 5 centuries, this practice gradually spread to other countries, including the United States, where it culminated in offices for the registration of vital statistics in each state by 1933.[4] This civil registration system, maintained by each state, is coordinated by the Centers for Disease Control and Prevention and the National Center for Health Statistics (NCHS), which sets the standards and guidelines for the completion of vital statistics, including death certificates.

A nomenclature is a list of acceptable or approved disease terminology. A classification refers to disease terms organized in a systematic way such as by topographic site or cause.[4] Nomenclatures of diseases began to appear when the Royal College of Physicians published one in 1837.[5] The American Medical Association followed with its own nomenclature shortly thereafter, but both had been discontinued by 1872.[6] Although the rudiments of a disease classification system were percolating prior to this time, nothing of substance occurred until the International Statistical Congress, which later became the International Statistical Institute (ISI), began developing lists of the causes of death in the 1850s. During an 1893 ISI meeting, a French system based on the causes of death grouped by anatomic sites and working conditions was adopted and widely accepted. This was the *International List of the Causes of Death*, which became ICD-1 after its first revision in 1900 by ISI. A decennial revision schedule ensued. The responsibility for making modifications to the ICD was transferred to the World Health Organization for the sixth revision in 1948. The revision schedule was followed through the ninth revision in 1975, ICD-9. In 1977, a steering committee was convened by the NCHS to provide counsel on developing a clinical modification of ICD-9, and it appeared in 1979. The Centers for Medicare and Medicaid Services (CMS) mandated that physicians use ICD-9-CM exclusively to classify patient encounters beginning in 1989.[2] The ICD-10 was developed in the 1980s and was finalized with the 10th revision in 1989. ICD-10 was approved in 1990 by the World Health Assembly.[3] World Health Organization member countries began using ICD-10 in 1994. The NCHS developed the clinical modification of ICD-10 in 1993. The United States declined to adopt ICD-10 or ICD-10-CM for use except for reporting morbidity and mortality data beginning in 1999.[3] In 2009, Health and Human Services announced that ICD-9-CM would be replaced by ICD-10-CM on October 1, 2013. This decision was delayed twice by the CMS; the new deadline is now October 1, 2015.[3,7]

Resources and Costs for Implementation of ICD-10-CM

Preparing for the implementation of ICD-10-CM requires physician and staff time, money, and other resources. The costs include training of staff, a needs assessment, software upgrades, process remediation, productivity losses, testing, and payment disruption. Effective preparation will help reduce the costs of productivity losses and payment disruption. If the software vendor absorbs the software upgrade costs, this will greatly decrease the overall cost.[8] A study in early 2014 predicted that the cost of implementing ICD-10-CM could be $18,880 to $82,474 per physician,[8] the higher cost occurring in large practices. The results of several recent surveys of small practices ($\leq$ 10 physicians) estimate much lower costs, at $750 to $4,372 per physician.[9,10] Lower costs were attributable to reduced costs for ICD-10 educational materials, software vendors providing ICD-10 system updates at no additional cost, and the adoption of electronic health records.

Because the date for implementation of ICD-10-CM has been delayed twice, practices should be better prepared in 2015 than they were in 2014, when the last delay was announced.[3,7] By now, practices should have conducted an impact analysis on which areas of the practice will be affected by ICD-10-CM, and how. Software vendors (particularly for software updates), billing services, and payers should have been contacted. System upgrades should be performed as soon as possible so that updates and internal and external testing can be accomplished in