Transitioning to ICD-10-CM/PCS— An Academic Timeline

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On January 16, 2009, the Department of Health and Human Services published the final rule for adoption of ICD-10-CM and ICD-10-PCS, setting a compliance date of October 1, 2013. The rule has major implications for every aspect of the healthcare industry, including the education of the future HIM work force. Along with system-wide change comes the transition of academic programs currently teaching ICD-9-CM in baccalaureate, associate, and certificate programs.

This practice brief provides a timeline of when and how academic institutions should start implementing ICD-10-CM/PCS in their curriculum over the next four years.

Background

The US has used ICD-9-CM to classify and report mortality and morbidity data since 1979. Upon implementation of the prospective payment system in 1983, ICD-9-CM has also been used for reimbursement.

However, the 30-year-old classification system is unable to accommodate yearly updates and advances in medicine and technology. Its limitations affect the healthcare industry's ability to assess care quality and process healthcare claims.

ICD-10-CM is an alphanumeric diagnostic coding system containing 68,065 codes (compared to 14,025 diagnosis codes in ICD-9-CM). For example, ICD-10-CM uses nine codes to describe mechanical complications of a vascular graft, allowing each code to be specific regarding location (e.g., T82.312, Breakdown (mechanical) of femoral arterial graft (bypass)). In contrast, ICD-9-CM currently offers one code (996.1).

ICD-10-CM codes are three to seven characters in length, with the first being alpha, the second and third numeric, and the fourth through seventh either alpha or numeric. The first three characters have common traits, and each additional character adds specificity. ICD-10-CM's alphanumeric system allows for the creation of a postprocedural category, laterality, and other factors that can affect health (e.g., lifestyle, socioeconomic, family relationships). Despite the differences between the two classification systems, however, the coding process is the same.

ICD-10-PCS is an alphanumeric procedure classification system used for inpatient hospital settings only. It contains 72,589 procedures codes (compared to 3,824 ICD-9-CM procedures codes). It uses seven characters, alpha or numeric, excluding the letters I and O to avoid confusion. Each of the seven characters of an ICD-10-PCS code has a standard meaning within each section, but may have a different meaning across sections. The characters in the medical and surgical section carry the following meaning, in order: section, body system, root operation, body part, approach, device, and qualifier.

There are 16 sections specific to types of procedures performed (e.g., obstetrics, imaging). The index provides the first three or four characters of the procedure code, which are used to determine the correct root operation table to obtain the remaining characters. The tables have four columns representing allowable values for characters four through seven; the rows, which vary in number, specify the valid combinations.

"Implementation Timeline for ICD-10-CM/PCS and Related HIPAA Transaction Standards" below provides the proposed timeline for implementation as outlined in the final rule.

Academic Preparation

Educators will be among the first in the country who need to be trained on ICD-10-CM/PCS. This is necessary to ensure that students graduating in 2013 are prepared to pass their credentialing exam and enter the work force as qualified ICD-10-CM/PCS coders, analysts, and managers. Transitioning curriculum from ICD-9-CM to ICD-10-CM/PCS as students move through their programs will pose unique challenges in the intervening years.

Additionally, the healthcare industry may defer to the public and private academic community to take the lead in the development of ICD-10-CM/PCS training programs. It is important that the academic community remain vigilant in providing comprehensive, high-quality ICD-10-CM/PCS training programs.

Academic programs can incorporate ICD-10-CM/PCS into their curriculum by breaking down the transition into three phases: preparation, hybrid, and full implementation. These phases are described in detail below, and the sidebar "Educational Timeline for ICD-10-CM/PCS" provides a high-level view of the entire process.

Educational Timeline for ICD-10-CM/PCS

2010

January 1, 2010:
Evaluate readiness of faculty to teach ICD-10-CM/PCS; budget additional dollars for training.

August 1, 2010:
Expand curriculum content on courses affected by ICD-10-CM/PCS changes.

2011

April 1, 2011:
Review and select new textbooks for the fall 2011 term.

July 2011:
Last chance to train coding faculty in ICD-10-CM/PCS before shift in curriculum.

August 1, 2011:
Associate and baccalaureate: First-year coding courses present both ICD-9 and ICD-10-CM/PCS to prepare students to convert completely to ICD-10-CM/PCS in second-year coding courses.

2012

August 1, 2012:
Coding certificate programs (one year or less): complete conversion to ICD-10-CM/PCS in all coding courses. Associate and baccalaureate: complete conversion in second-year coding courses.

2013

May 2013:
First group of HIM students graduate with full training in ICD-10-CM/PCS.

June–September 2013:
Students sit for CCA, CCS, RHIT, RHIA credential exams under ICD-10-CM/PCS (anticipated).

October 1, 2013:
Coding conversion complete: ICD-10-CM/PCS is the principal coding scheme in US.

Phase 1—Preparation

The preparation phase begins with the academic school year starting in August 2009. It is at this time that academic institutions should broadly consider the impact of the transition to ICD-10-CM/PCS and begin to formulate plans. They may need to consider elements such as program changes, faculty training, program resources, and community involvement. The "Readiness Checklist" below summarizes considerations during the preparation phase.

HIM educators should focus on the following areas when revising program-level changes:

- Inclusion or expansion of ICD-10-CM/PCS introductory content throughout various HIM courses
- Assessment of biomedical science courses (e.g., anatomy, physiology, and pathophysiology)
- Development of a plan to revise curriculum, including the approval process
- Preparation of faculty for curriculum changes

Current HIM Courses

Accredited programs have included ICD-10-CM/PCS introductory content in their curriculum since it was introduced as required content in 2005. HIM educators should start the ICD-10-CM/PCS transition by reviewing the current competencies and knowledge clusters, focusing on the areas that ICD-10-CM/PCS will impact.

AHIMA has highlighted the curriculum items that will be affected by the transition in associate and baccalaureate degrees online at www.ahima.org/academics [note: page no longer active] (scroll down to "Accredited Associate and Baccalaureate HIM Programs" and click on the links under "ICD-10 Resources"). The items highlighted in yellow demonstrate how the new classification systems will affect many aspects of the curriculum beyond the actual diagnosis, procedures, and reimbursement courses.

During the preparation phase, coding classes should continue to focus on ICD-9-CM while introducing basic ICD-10-CM/PCS concepts. Various ICD-9-CM coding workbooks currently include sections on ICD-10-CM/PCS, which should be covered.

Although there is an overwhelming amount of material to be covered in the ICD-9-CM coding classes, ICD-10-CM/PCS must be reviewed. One suggested method for introducing ICD-10-CM/PCS is the concept of "station breaks." During a station break instructors can introduce an ICD-10-CM/PCS concept while teaching the same concept in ICD-9-CM.

For example, while teaching ICD-9-CM neoplasm concepts and guidelines, educators can take a station break to briefly discuss the structure of ICD-10-CM neoplasm codes and the neoplasm guidelines. Incorporation of parallel concepts in this manner throughout the course will provide students with a gradual, basic introduction to ICD-10-CM/PCS codes and guidelines.

Other courses should also introduce ICD-10-CM/PCS during this period, such as introduction to HIM, quality management, information systems, and data analysis. ICD-10-CM/PCS will also touch upon the clinical classification systems subdomain and other competencies such as health data structure, content and standards, healthcare information requirements and standards, reimbursement methodologies, quality management and performance improvement, healthcare delivery systems, and information and communication technologies.

For example, educators can discuss the impact on longitudinal reporting or trending of data in a data analysis class. In an IT course, educators could discuss an assessment of organizational systems that will require updates as a result of the transition, along with the effect this will have on the organization. The impact of ICD-10-CM/PCS could be introduced to courses that cover alternate healthcare settings such as skilled nursing facilities and home health agencies.

Biomedical Science Courses

Accredited HIM programs require that students take biomedical science courses in anatomy, physiology, pathophysiology, pharmacology, and medical terminology. Since ICD-10-CM/PCS requires a stronger background in the biomedical sciences, programs should assess their current requirements for biomedical courses during the preparation phase.

If students currently take a basic anatomy and physiology course, prerequisites may need to be changed requiring students to complete advanced anatomy and physiology courses prior to taking coding courses. Programs that currently do not require

students to complete their biomedical science coursework in dedicated science courses taught by instructors with a science background may consider changing their requirements as part of the transition.

Curriculum Revisions

Curriculum approval can be a lengthy process at many colleges and universities. Depending on the complexity of the change, the preparation phase may be the appropriate time to begin the curriculum revision and approval process. In part, programs must determine if current curriculum can be revised or if additional courses and lab sessions will need to be added.

If a new, more advanced course must be added, the institution must determine the feasibility, including the availability of appropriate resources. For ease of transition, one consideration is that course titles with terms such as "ICD-9-CM" or "CPT/HCPCS" be changed to less specific titles such "Coding I" and Coding II."

The program also should complete a review of course descriptions and course prerequisites during this phase, ensuring that they remain appropriate with the implementation of ICD-10-CM/PCS. It should be remembered that students will require a stronger background in anatomy, physiology, and pathophysiology. Changes in college catalogs, including course titles and description, are often required 10–12 months prior to the term in which they are to be implemented.

Faculty Preparation

HIM faculty should begin training on the new coding systems during the preparation phase, as they will begin teaching ICD-10-CM/PCS in greater depth during the hybrid phase.

Coding faculty will require in-depth training and will need to become as proficient in teaching ICD-10-CM/PCS as they are at teaching ICD-9-CM.

Other program faculty will require varying levels of training. HIM faculty teaching courses such as data analysis, information systems, and quality management will require basic training, which includes at a minimum the structure and conventions of ICD-10-CM/PCS and the similarities and differences with ICD-9-CM.

Readiness Checklist

While transition timelines will vary with different types of organizations (e.g., private schools versus state schools, universities versus community colleges), all programs will need to consider the following items:

- **The processes for making changes to programs** (e.g., course titles, syllabi revisions)
- **Faculty training on ICD-10-CM/PCS**
    - Determine available funding and who will attend
    - Gather resources currently available (e.g., AHIMA, Centers for Medicare and Medicaid Services)
    - Become involved in AHIMA's Communities of Practice
- **Required program resources**
    - Determine funding availability for software and books
    - Outline time allotted for faculty training
- **Community involvement**
    - Discuss implementation with advisory board
    - Discuss professional practice experience revisions with preceptors
    - Develop resources to share, including:
        - Timeline
        - Training materials for experienced coders

- Workshops
- Physician education materials regarding documentation
- Development of syllabi
- Research available online resources

Phase 2—Hybrid

The hybrid phase will begin with the academic school year starting in August 2010. In this second phase, educators will face the challenge of incorporating both coding systems into an already full academic schedule. There will be numerous factors to consider, including course content, cost of additional materials, and timing of classes.

Course Content

In this phase, ICD-10-CM/PCS content should shift away from minilessons or station breaks and move to a more intensive review of the ICD-10-CM/PCS guidelines. This could be done in conjunction with the ICD-9-CM guidelines because, although there are differences between the code sets, in many respects they are similar.

During the hybrid period faculty will be required to teach both classifications, placing a greater emphasis on ICD-9-CM while still preparing students with ICD-10-CM/PCS foundational concepts. At this time, students should be performing a mix of hands-on activities that involve both ICD-9-CM and ICD-10-CM/PCS. As noted, ICD-10-CM/PCS will require students to have a very strong proficiency in the biomedical sciences (e.g., anatomy, physiology, and pathophysiology); therefore programs should place greater emphasis on those courses.

Cost of Additional Materials

During the hybrid phase, students will learn to code with both classification systems. However, it may not be feasible or cost effective for students to purchase separate books for ICD-9-CM and ICD-10-CM/PCS. It may be more cost effective to use online resources for ICD-10-CM/PCS, since both systems are in the public domain. HIM educators could also use an encoder to teach ICD-10-CM/PCS.

Timing of Classes

Based on the structure of their programs, institutions will individually determine when they start introducing ICD-10-CM/PCS into the course curriculum. The number of ICD-9-CM coding classes a program currently offers and when it offers them will be a determining factor. For example, associate programs may offer coding classes in both the first and second years or only in the second year.

HIM programs must also address the issue of part-time students who may not be prepared when certification exams begin to include ICD-10-CM/PCS. Programs with part-time students will need to identify those students enrolling in 2010 who will not be graduating until 2013. These students will require a graduation plan to ensure that they do not take coding courses too early (before sufficient ICD-10-CM/PCS concepts are incorporated). Proper planning will prevent students from retaking some coding courses in order to graduate with the correct skill sets.

Additionally, discussions and decisions at the institutional level will determine whether students lacking the correct coding skill sets will need to take refresher courses or new courses to make up any gaps in their knowledge. Part-time students should fully understand ICD-10-CM/PCS's impact on the sequencing of their courses during the hybrid phase.

Implementation Timeline for ICD-10-CM/PCS and Related HIPAA Transaction Standards

All covered entities must use ICD-10-CM and ICD-10-PCS as of October 1, 2013. As the industry transitions to the new code sets, it will also be upgrading HIPAA electronic transaction standards, a necessary prior step.

Healthcare transactions will update to the version 5010 standard, and pharmacy claims must update to version D.0.

Date	ICD-10-CM/PCS	Version 5010/D.0 and Version 3.0
August 2008	Proposed rule published	Proposed rule published
September 2008		Industry begins requirements documentation for systems changes; CMS and industry initiate education and outreach
December 2008	CMS and industry begin ongoing education and outreach	
January 2009	Final rule published	Final rule published; begin level 1 testing period activities for Versions 5010 and D.0
January 2010		Begin internal testing for Versions 5010 and D.0
December 2010		Achieve level 1 compliance for Versions 5010 and D.0
January 2011		Begin level 2 testing period activities for Versions 5010 and D.0
January 2012		Achieve level 2 compliance for Version 3.0 for all covered entities except small health plans
January 2013		Compliance date for Version 3.0 for small health plans
October 2013	Compliance date for all covered entities (subject to the final compliance date in any rule published for the adoption of ICD-10-CM/PCS)	

Phase 3—Full Implementation

For associate and baccalaureate degree programs, phase 3 will start with the August 2011 academic year; for the coding certificate programs it will begin with the August 2012 academic year. This phase is the final stage of the curriculum change, with ICD-10-CM/PCS being taught as the current classification system and ICD-9-CM as a legacy system.

Students graduating in this phase of the curriculum will be taking ICD-10-CM/PCS–based certification exams. New competency statements will exist for each certification, and students will be expected to apply ICD-10-CM/PCS codes accurately, as well as perform support functions such as validation and DRG assignment. It is also important that ICD-10-CM/PCS be taught in all classes with a coding component, including data analysis and reimbursement courses, during this phase.

Currently available textbooks address the basics of ICD-10-CM/PCS coding and the differences with ICD-9-CM. As the implementation date approaches, more ICD-10-CM/PCS textbooks and workbooks will be published that cover the subject in-depth and provide opportunities for practice. Textbooks used in this phase should also include an ICD-9-CM component, covering basic fundamentals of the classification system.

In the full implementation phase there may be some concerns about the extent of teaching ICD-9-CM as a legacy system. The depth of instruction reflects academic level, with associate degree programs teaching data mining at a less intense level of instruction than baccalaureate degree programs.

Although mapping systems exist between the two classification systems, students will need to understand the basic differences when viewing and analyzing pre-ICD-10-CM/PCS data. This includes such issues as the basic format of the codes, ICD-9-CM's use of V and E codes, classification by type versus site, and ICD-9-CM's lack of laterality.

However, teaching ICD-9-CM as a legacy system may not add value to a coding certificate program since certificate programs are by nature designed to deliver information relevant to the task at hand. At a minimum, information about ICD-9-CM should focus on the use of ICD-9-CM for abstraction and conversion mapping.

Work Force Training

Training practicing professionals will bring a unique challenge to both the industry and educational institutions. Many larger facilities will conduct in-house training, but many smaller facilities will need external training resources. Colleges and universities are often seen as community educational resources, and it is important that academic centers consider this training need. Academic institutions who desire to offer training to practicing professionals will need to develop training specifically for this purpose.

Academic program courses are focused on the beginning coder and therefore will most likely be insufficient to train the current work force. It is recommended that institutions offer separate instruction for experienced coders focused on continuing education rather than college or university credit. To best serve the professional community, schools should consider offering these classes during alternative times such as evenings or weekends. In addition, they can consider offering different skill level programs (e.g., for beginning and advanced coders). Distance learning courses may be appropriate, particularly for regions with a large rural population.

The key to a graceful evolution of all curriculum throughout the ICD-10-CM/PCS implementation is early planning for curriculum revisions, creative use of teaching tools, and adequate faculty preparation. The coming years will be challenging, but the end result of improved quality of care due to greater specificity of healthcare information makes the effort worthwhile.

Resources

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