Medicare’s hospital outpatient prospective payment system (HOPPS) was initially developed in response to the rapid rise in Medicare’s outpatient expenses between 1980 and 1991. The Balanced Budget Act of 1997 mandated HOPPS, with an implementation date of August 1, 2000. Unlike the Medicare Physician Fee Schedule, the Centers for Medicare and Medicaid Services (CMS) used hospital charge data to develop the ambulatory patient classification (APC) payment weights. During its evolution as a payment system, Congress mandated the creation of an advisory panel as well as the removal of diagnostic mammography from the APCs. The Deficit Reduction Act proposes applying HOPPS for paying technical fees in nonhospital settings.

**Key Words:** HOPPS, APC, CMS, Medicare, payment system, new technology


**BACKGROUND AND EVOLUTION OF THE HOSPITAL OUTPATIENT PROSPECTIVE PAYMENT SYSTEM**

Medicare’s hospital outpatient prospective payment system (HOPPS) was initially developed to address the rapid rise in Medicare’s hospital outpatient expenses, which had increased fivefold between 1980 and 1991. Hospital outpatient payments used to be paid at a rate that was based on costs plus markups by individual hospitals. At that time, radiologic procedures were paid the lowest of (1) reasonable costs, (2) customary charges, or (3) a blend of 42% of costs and charges and 58% of the Medicare Physician Fee Schedule’s (MPFS) technical component payment rate. Because of the lack of consistency in payment methods across hospitals, it is difficult today to determine what the aggregate financial impact has been on hospitals as a result of converting to a new payment system.

In 1989, the Centers for Medicare and Medicaid Services (CMS; known then as the Health Care Financing Administration) contracted with a company called 3M to develop a new payment system called ambulatory payment groups (APGs). Also during this period, the Omnibus Budget Reconciliation Act of 1986 and 1990 required the Secretary of Health and Human Services to develop a new payment system for hospital-based outpatient care. Over the next 5 years, 3M worked on a contract with the government to develop APGs. The work on this payment system gained traction, and in 1995, the Medicare Payment Advisory Commission recommended to Congress that hospital outpatient payments be converted to an APG-like system for the hospital outpatient system. The HOPPS was mandated with the passing of the Balanced Budget Act of 1997, with an implementation date of August 1, 2000. By this time, the APGs had evolved into ambulatory patient classifications (APCs), which remains the designation today. Several revisions have been mandated by Congress in subsequent legislation to further modify specifics of the payment system.

Now that the Deficit Reduction Act (DRA) mandates that imaging be paid at the APC rate when that rate is lower than the technical component payment in the MPFS, this payment system is even more important to physicians. In addition, the DRA also mandates that ambulatory surgical center and inpatient hospital payment mechanisms be restructured like HOPPS and paid similarly, on the basis of actual reported costs.

**WHAT ARE APCS?**

Ambulatory patient classifications are groups of codes that are similar clinically with respect to resource consumption. The groups or categories must stay within a range of costs called the “2-times rule.” The highest cost procedure must not be more than 2 times the lowest cost procedure in that category. Each procedure in a category or group has the same payment weight or value, which is the median cost of all the services in that category. For example, all codes for computed tomography (CT) with contrast are grouped in one APC. Each weight is multiplied by the hospital outpatient conversion factor to produce an actual payment amount. The weight and the
conversion factor (which is a dollar multiplier) are nationally fixed numbers. Medicare has wage indices that adjust the payment rates in each geographic area on the basis of the geographic differences in medical staff members’ wages across the country. Medicare reviews the accuracy of the payment rates each year.

Hospital costs do not immediately affect the APC payment weights. It takes about 2 years for costs to effect a change. Medicare has had many challenges in processing hospital data through its methodology to calculate payment weights. The CMS starts with more than 130 million outpatient claim records. The CMS uses a complex series of adjustments to reduce the claims to just less than 90 million. These adjustments include exclusions for location (Maryland, Guam, and the Virgin Islands), codes not payable under HOPPS, erroneous cost/charge ratios, and multiprocedure claims. The remaining charges are then used to calculate the APC medians [1].

From the beginning, Medicare has not been able to use all the cost data provided on a claim that includes multiple procedures. This has been problematic for determining APC weights for radiation oncology and interventional radiologic procedures because they usually include the reporting of multiple services on a claim. Therefore, CMS adopted a concept called packaging, whereby CMS asks hospitals to cost out services considering all elements typically used to provide the services. For example, the cost of an image-guided central venous line placement will include the cost of the line placement, imaging, and supplies and will be paid under a single Current Procedural Terminology® (CPT®) or procedural code. This packaging concept is similar to what hospitals use under their revenue codes system, in which revenue codes reflect the reporting of costs of an entire service or incident. Specialty societies have been advocating separate payment for each aspect of a service that can be coded separately to ensure that hospital coders capture all costs. It is of major concern that hospital coders will not consider costs of those aspects of a service that they do not code out or are paid for separately. In addition, the decision to package or not package services has changed back and forth, leaving hospital coders confused as to what the coding and costing rules are from year to year.

Some examples of procedures that have been controversial in the packaging issue are prostate brachytherapy, nuclear medicine and radiopharmaceuticals, imaging guidance, and contrast-enhanced studies. Prostate brachytherapy has been particularly troublesome because CMS chose to package almost all the services involved plus the sources or seeds into one designated payment. When the data and subsequent APC weight were not close to the correct payment level, CMS unpackaged prostate brachytherapy and allowed hospitals to code out and be paid separately for the individual services. Many policy changes on the code reporting of this procedure, combined with its problems with always being a multiple procedural claim, have left CMS struggling to obtain an accurate payment level for prostate brachytherapy for its entire 6 years of existence.

Medicare uses hospitals’ cost and charge data to set the APC payment weights. Many hospitals do not systematically review their charge masters to incorporate new procedures or adjust charges for existing procedures. Hospitals also do not have a systematic way to report their costs. Each hospital has its own authority to set its charges and report its costs by its own method, and a visit to each hospital will show a unique approach [2]. Hospitals submit extensive aggregate cost reports that are compared with their submitted charges either hospital-wide or within a certain “cost center” in the hospitals, thus producing a cost/charge ratio. This ratio is then applied to the charges for procedures in a given APC to establish the “median cost” and thus the “relative weight” and reimbursement for that APC.

ADVANTAGES AND DISADVANTAGES OF HOPPS

One of the benefits of the new HOPPS was that a limit was set on how much beneficiaries would have to pay through their copayments. Under Section 4523 of the Balanced Budget Act, the coinsurance amount was initially calculated for each APC on the basis of 20% of the national median charge for services in the APC. The goal is to continue to phase copayment rates down to 20% of the total APC payment. In addition, Section 204 of the Balanced Budget Refinement Act provides that no coinsurance amount can be greater than the hospital deductible in a given year.

The HOPPS applies to hospitals or hospital-owned facilities. The payments are designated to cover the costs of providing the service in a hospital-based facility, such as nonclinical personnel, supplies, equipment, and overhead. The CMS says that HOPPS was intended not to cover 100% of hospital costs but only 80%. Physicians are paid separately under the MPFS. Many would ask why physician specialty societies care so much about a payment system that does not directly reimburse them for their services. Physicians care because for a majority of them, this is where they primarily work. It is in the physicians’ best interest to make sure that their hospital departments show adequate revenues to justify new and upgraded resources. Hospital administrators watch their cost centers to determine which are “winners” and which are “losers” with respect to revenue. On the basis of this information, they must decide what they will support in the future. This is one reason why physicians should
communicate with their hospitals to ensure that hospital costs are reported accurately.

APC ADVISORY PANEL

Congress mandated in April 2000, that Medicare develop an advisory committee. According to the 2004 APC Advisory Panel charter [3], the panel consists of 15 volunteer members who are full-time hospital employees and other Medicare providers subject to HOPPS. Members are required to have a minimum of 5 years of experience in their areas of expertise as well as technical expertise in hospital payment systems, hospital medical care delivery systems, outpatient payment requirements, APCs, CPT® codes, and the use and payment of drugs and medical devices in the outpatient setting. A federal official serves as chair of the panel. The APC Advisory Panel originally met once per year at the beginning of the year to review the APCs. Now the APC Advisory Panel meets twice per year, once at the beginning of the year and once in August. The APC Advisory Panel makes recommendations to Medicare on issues of APC structure, packaging, data collection, and so on. Medicare publishes the panel’s recommendations and Medicare’s decisions in its notices of proposed rule making and final rules each year. The panel currently has radiology and radiation oncology physician members.

NEW TECHNOLOGY APCS

New technology APCs are not based on clinical aspects of services they contain; instead, they are priced on the “costs” of items or services. The services are moved from a new-technology APC to a clinical APC once CMS determines that it has collected sufficient data on the technology. Hospital data were historically based on a percentage of charges whereby charges were systematically inflated. Hospitals had the flexibility to increase charges for certain procedures on their charge masters to account for decreases or losses incurred for other procedures or services on the charge masters. Today, newer and more expensive procedures are less likely to have inflated charges, because under the new payment system, they are required to report actual costs. Also, the HOPPS mandate encourages prices to be reasonable for patients, and thus average charges are lower. The result of the shifting in pricing of services is causing lower hospital cost/charge ratios, which are deflating the hospital charge for new technologies.

LIMITATIONS IN THE METHODOLOGY

In 2003, several radiology stakeholders looked at specific hospital data on how hospitals are reporting costs for computed tomographic angiography (CTA). It was discovered that more than half of the hospitals reporting codes for CTA were charging the same or less than for regular CT, with and without contrast [4]. Computed tomographic angiography is a more extensive study than CT and includes not only the work and resources of CT but also the 3-D reconstruction of images on a separate workstation and then the interpretation of this additional imaging. Previously, hospitals billed a CPT® code for CT plus a 3-D CPT® code (76375). However, they did not translate their cost reporting accurately when new CPT® codes for CTA were developed. Thus, hospital charge data skewed the APC rate for the CTA APC, and the payment weight underpaid for the service. Over the years, the ACR has testified before the APC Advisory Panel and noted in formal comments that there are problems with the data for CTA. An educational article was published in the American Hospital Association’s Coding Bulletin in 2004 informing hospital administrators of the problems with the CTA data and guidelines for appropriate coding [5]. Despite these efforts, hospital cost data have not improved, and Medicare has made no change in its policies. The 2005 and 2006 CTA APC weights continue to be lower than those for CT. The unfortunate unintended consequence of this problem data is that the office technical component payments will now be paid at the CTA APC rates because they are lower, as mandated by the DRA. This is one sound example of why Congress should not link the 2 payment systems.

Another example of a flaw in the hospital cost data and thus the APC weights is HOPPS payments for mammography. In 2001, Congress allowed screening mammography to be moved out from under its mandated payment rates and into the MPFS. At that time, the ACR submitted data to Medicare on how to adequately price mammography for the office and hospital settings. In 2002, mammography was priced at $86.50 for both settings, and the APC rate for diagnostic mammography was priced at $35.00. The ACR commented for several years to Medicare and Congress that there was something wrong with the hospital cost data for diagnostic mammography. In 2004, Congress mandated that the diagnostic mammography payment rate be taken out of HOPPS and paid under MPFS in both settings to maintain the relativity in payment and viability of access of this study to patients. This is an example of how HOPPS was not able to correct this inequity, and the methodology itself needed to be overridden by a legislated action, which pointed to a more accurate payment rate in the MPFS. The method, or lack thereof, for how hospitals report their costs is not an accurate reflection of offices’ costs for performing radiologic examinations.
FUTURE CHALLENGES

In the future, if APC rates are mandated to dictate payment rates for other practice settings, the system will need to be more precise, and there is much work to be done. The DRA has proposed using the lesser of the MPFS or HOPPS rates to reimburse all outpatient imaging centers. Other applications of HOPPS methodology currently being transitioned include ambulatory surgical centers and inpatient services. If Medicare does not continue to require quality and consistency from hospital data and continue to solve its data issues, this may prevent centers from staying open in the future and also affect access to imaging in rural areas.

WHAT CAN YOU DO?

Physicians, radiology administrators, and technologists must assist their facilities’ chief financial officers in the routine review and analysis of their charge masters to ensure that charges truly reflect the relative costs of doing procedures. Radiologists can also get involved with their hospitals’ finance committees or departments and interact with other departments to coordinate on producing accurate data. It is also helpful to educate the hospital administration department and other departments about new technology and planning. Future equipment acquisitions, software upgrades, and so on, will require that a modality or type of examination show a profit to a facility. If we do not do this, the APC values for our procedures will inadequately reimburse our facilities and further jeopardize the maintenance of existing equipment, the upgrading and expansion of imaging services, and investment in new technologies for the future.

Members of the ACR can also do more than pay their membership fees. They can get involved and engaged in the issues at both the national and local levels. The goal is to get this payment system right to ensure adequate patient access and appropriate reimbursement for radiologic services in the future.

REFERENCES