

# Reimbursement Risks with Radiologist Extenders: There Is No Free Lunch!

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There is great allure in the concept of using qualified health care providers to assist radiologists and radiation oncologists, increasing efficiency and possibly even improving patient care delivery. However, physician services are most commonly reimbursed under a system that is resource based, and the physician work and practice expense components of reimbursement for existing procedure codes are periodically reexamined to ensure their appropriate rank in this “relative value system.” Also, as new codes are developed, demonstrable physician work and practice expenses will determine the relative values for the new procedures. In both cases, the type of individual who actually performs different portions of a procedure will determine the reimbursement level. In addition, the total reimbursement must be appropriately apportioned between the physician involved and the facility where the service is delivered. This article examines some of the potential impacts on procedure coding and radiologist and radiation oncologist reimbursement schedules if physician extenders perform work previously performed by physicians. It also examines possible shifts in reimbursement from physician to facility if an extender is employed by a facility.

**Key Words:** Physician extenders, coding, economics, Medicare

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## INTRODUCTION AND REVIEW

As described in other articles in this issue, as well as multiple prior reports [1-3], there is growing interest in the use of physician extenders in radiology (e.g., physician assistants [PAs], nurse practitioners [NPs], radiologist assistants). This article is not a comment either in favor of or against the concept of radiologist extenders, but it is critical that radiologists and radiation oncologists not expect the use of physician extenders to be a “free lunch.” To understand the possible impact of transferring tasks previously done by physicians to extenders, whose time and effort have been traditionally reimbursed at a substantially lower rate than physicians, one must first review some of the basics of the “resource-based” reimbursement system used by Medicare. Those wishing an in-depth refresher course are referred to a prior article in this journal [4]. There is also a glossary in that article that may be helpful in keeping the acronyms straight.

Congress has mandated that Medicare reimburse-

ment be based on a system that reflects the resources consumed in the performance of any given procedure. This reimbursement is divided into three elements [5, pp. 24-52], each of which has its own “relative value unit” (RVU):

- the physician work (work) RVU, defined by the physician time involved in performing the procedure as well as the intensity, based on several factors;
- the practice expense (pe) RVU, determined predominantly by the amount of nonphysician clinical labor (e.g., technologists, registered nurses, etc.), medical supplies, and medical equipment consumed during the procedure; and
- the malpractice (malp) RVU, based on the specialty that performs the procedure, proportionate to the physician work and practice expense.

Thus for any procedure:

$$\text{Total RVU} = \text{RVU}_{\text{work}} + \text{RVU}_{\text{pe}} + \text{RVU}_{\text{malp}}$$

In addition, because services provided by radiologists and radiation oncologists are often performed in hospitals or other facilities not owned by physicians, each procedure reimbursement is divided into a “pro-

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fessional component" (PC) and a "technical component" (TC), so that the total reimbursement can be divided to pay both the physician (MD) and the facility. For each such procedure, these two components are calculated as follows:

$$PC = RVU_{MD\ work} + RVU_{MD\ pe} + RVU_{MD\ malp}$$

$$TC = RVU_{facility\ pe} + RVU_{facility\ malp}$$

If the service is provided in a physician-owned facility, a global code is submitted and reimbursed as a rate equal to the sum of the two components:

$$Global = PC + TC$$

Recall that the RVU values are then multiplied by a "conversion factor" that results in the actual fee schedule dollar value. It is estimated that over 75% of the physician fee schedules currently used by other payers are based in some fashion on the Medicare fee schedule (Sherry Smith, personal communication). As a result, if the Centers for Medicare & Medicaid Services (CMS) reevaluate their relative value scale on the basis of a change in physician time or practice expense, there are repercussions well beyond services delivered to Medicare patients.

### PHYSICIAN WORK: HOW IS IT VALUED?

To determine the effect of substituting nonphysician labor for physician labor (i.e., the use of extenders), one must first understand how physician work is valued. The American Medical Association's (AMA) Relative Value System Update Committee (RUC) over the past 11 years has refined the process of determining the physician work RVU recommendation that it submits to the CMS. The survey document [6], p. 3 used by all specialties to collect the data on which that recommendation is based is standardized and has very explicit definitions and instructions. The factors queried that define physician work are as follows:

- physician time involved in providing a service,
- physician mental effort and judgment,
- physician technical skill and physical effort, and
- physician psychological stress including that due to the risk of adverse outcome.
- In addition, there are very explicit instructions in that survey document so that nonphysician work is not mixed in with physician work. One such instruction reads,

"Physician work" does not include the services provided by support staff who are employed by your practice and cannot bill separately, including RNs, LPNs, medical

secretaries, receptionists and technicians; these services are included in the practice cost relative values, a different component of the RBRVS."

Regarding laboratory and imaging services, the survey instructions go on to state,

"For these services, the service period is treated as a whole, and include the work from the time you begin the service to the time you complete it and report your results. Consider only the work that you do and not the work done by a technician or other professionals."

Clearly, survey respondents must differentiate between physician and nonphysician labor.

### NONPHYSICIAN CLINICAL LABOR: THEY WHO PAY FOR IT GET PAID

Clearly, a physician's labor cost to provide a service at a site that the physician owns and operates is greater than the cost if the physician provides that service in a hospital or other setting owned and operated by someone else. As a result, the Medicare fee schedule (MFS) includes physician practice expense RVU values for both "facility" (e.g., performed in an imaging or radiation oncology center owned and operated by someone other than the physician) and "nonfacility" (e.g., an office or imaging center owned by a radiologist or radiation oncologist) settings. With the vast majority of radiology and radiation oncology procedures, these "technical component" (-TC modifier attached to the code) practice expense RVU values are listed identifying for each code the allocated practice expense payment to a nonhospital facility at which the procedure is performed.

Hospitals are now reimbursed by CMS for the technical component of inpatient or outpatient imaging or radiation oncology procedures by separate methodologies. A full explanation of these (diagnostic related groups for inpatients, Hospital Outpatient Prospective Payment System for outpatients) is beyond the scope of this article, but suffice it to say that those payment schedules include reimbursement for the nonphysician labor needed for the performance of each service when performed in the hospital setting. The CMS has indicated that it will not reimburse physicians through the practice expense element of the MFS for reported costs for clinical personnel to assist physicians in the hospital setting, stating that they are already paying hospitals to provide this.

### NONPHYSICIAN CLINICAL LABOR: HOW IS IT VALUED?

In the MFS, nonphysician clinical labor is considered by the CMS to be one of three "direct inputs" of practice expense (the other two being medical supplies and med-

ical equipment, not in consideration here). When Congress mandated that practice expense be converted to a resource-based system, the AMA's RUC formed a subcommittee, the Practice Expense Advisory Committee, whose task it is to evaluate the appropriate values for nonphysician labor time and recommend them to the CMS. Just as with physician work, there is a standardized survey document [7, pp. 1-9] that specialty societies must submit when they make recommendations on these labor times for existing and new codes. For the presentations of these recommendations, the "typical" clinical case scenario must be used, and the labor divided by the type of individual (e.g., technologist, registered nurse) performing each task. Obviously, any labor that can be billed separately performed by an independent practitioner, such as a certified PA or NP, cannot be included in the labor practice expense values.

## TYPES OF PHYSICIAN EXTENDERS

With respect to reimbursement, physician extenders fall into two fundamental categories:

- those who can potentially bill independently for their services (e.g., PAs, NPs) and
- those whose labor is reimbursed strictly through the practice expenses of their employers (e.g., technologists, radiologist assistants).

The training, certification, and qualifications of these types of individuals are discussed in other articles in this issue, but the impact on per-procedure physician reimbursement is different depending on the type of individual, the service that he or she is performing, and whether or not it is performed in direct conjunction with a physician service.

Those extenders who can bill independently, even if under the name of the physicians' practice, for physician-level services will be paid by the CMS at a rate of 85% of the MFS rate for that service [5, pp. 92-3]. Other payers may pay up to 100% of their physician fee rate. Clearly, the procedures that they perform must lie within their "scope-of-practice" delineation, defined by their states' medical boards or other oversight organizations, as well as by their supervising physicians. The MFS values of those procedures are not affected by this, because that labor is not a practice expense cost to the physicians or practices but rather a source of revenue.

Those extenders who cannot bill independently, if employed by physicians and used in physician-owned facilities, represent a practice cost to those physicians or practices, but their labor value (cost per minute) is substantially lower than that of physicians, so the sub-

stitution of their labor for that of physicians could result in a net reduction of the actual resources used in performing procedures. As discussed below, this could result in a reevaluation of the MFS values.

## PHYSICIAN SUPERVISION AND "INCIDENT-TO" SERVICES

For all procedures listed in the MFS, the CMS has assigned specific "levels of [physician] supervision" required for Medicare reimbursement [8,9] for procedures paid under the MFS and performed in nonhospital settings. These are critical in determining how physician extenders can be used, while still satisfying this requirement. These three levels are

- general supervision, whereby a procedure is performed under a physician's overall direction and control, but the physician's presence is not required (e.g., chest x-rays);
- direct supervision, whereby a physician is not required to be in the room but must be "present in the office suite and immediately available" (e.g., contrast-enhanced computed tomographic examinations); and
- personal supervision, whereby a physician must be in the room during a procedure (e.g., fluoroscopic procedures).

As the scope of procedures that extenders might perform is defined, these requirements must be considered if full reimbursement from Medicare is anticipated. If a procedure requiring "personal" supervision is determined to be capably performed by an extender, with a physician providing lesser supervision from outside the examination room or even outside the department (e.g., teleradiology), radiologists must expect that the change in level of supervision requirement may result in a reduction in the MFS value for that procedure.

Medicare has a special category of services, titled incident-to [5, pp. 89-90] services, that applies to services provided by a nonphysician but in conjunction with a treatment plan constructed by a physician. When performed by a PA, NP, or other similar licensed extender outside the hospital setting, these can be billed at 100% of the MFS rate, but they must meet strict criteria. A complete description of these is in the *Medicare Carrier's Manual* [10], but a critical component of the definition states that incident-to services require

"direct personal, professional service provided by the physician to initiate the course of treatment of which the service being performed by the nonphysician practitioner is an incidental part, and there must be subsequent services by the MD of the frequency that reflects his or her continuing active participation in the management of the course of treatment."

Although there may be select applications of this category in interventional radiology and radiation oncology, unfortunately, these criteria appear to prevent the use of this mechanism for the vast majority of diagnostic radiology procedures.

Many Current Procedural Terminology (CPT) codes for radiologic procedures include the phrase “radiologic supervision and interpretation.” The distinction between “supervision” and “interpretation” is not inconsequential. Medicare specifically addresses its intent in the *Medicare Carriers Manual* regarding reimbursement for these codes:

“In order to bill for the supervision aspect of the procedure, the physician must be present during its performance. This is a service to an individual beneficiary and differs from the type of general supervision of the radiologic procedures performed in a hospital.”

Medicare goes on to write, “In situations where another physician bills for supervision (S) of the S and I, and a radiologist bills for the interpretation (I) of the code, both physicians should use a -52 modifier indicating ‘reduced service.’ ”

In essence, this is stating that a radiologist submitting any charges for codes whose CPT descriptors cite supervision and interpretation must be “supervising” that examination. If someone else, such as a physician extender, provides that supervision, the CMS may contend that a reduced reimbursement is appropriate.

## TIME IS MONEY

Under the resource-based system, time is a critical element in both the physician work and nonphysician labor value calculations, but they have dramatically different values on a per-minute basis. Shifting work responsibility from a radiologist to an extender could significantly affect the value of a procedure code as well as raise questions about how to correctly code for the procedure. This is best demonstrated using specific examples of a common procedure (e.g., an upper gastrointestinal [UGI] series) under consideration to be performed but not interpreted, by radiologist assistants. The discussion is limited to extenders who cannot bill independently for the procedure, because it was recently a consensus at the ACR Intersociety Summer Conference (reported in this issue) that any extender should not be responsible for image interpretation. It is also critical that one examine that example in two settings, because each has different potential payment implications:

1. a radiologist’s office (nonfacility), in which the radiologist employs a radiologist assistant and submits a global bill; and
2. a facility in which someone else employs a radiologist assistant, and thus a physician submits a professional component bill and the facility submits a technical component bill.

## Case 1: Global Billing in a Radiologist’s Office

First, let’s address the coding issues. Under current CMS “level-of-supervision” requirements, a UGI series requires “personal supervision” (a physician in the room for all fluoroscopic procedures). Thus, if a radiologist assistant or similar physician extender performs the fluoroscopic portion of a UGI series, the codes for a UGI series (CPT code 74240 or 74246) may not be allowed by the CMS (or potentially other payers who apply the same supervision rules). Alternatives would include submission of the code with a “-52” (reduced service) modifier or the use of an “unlisted” procedure code, requiring the submission of a paper claim including the report and justification.

If the UGI codes were to be reviewed for valuation, the CMS may attempt to recalculate the work and practice expense RVU values to reflect the change in personnel. The value for the physician time allotted for the fluoroscopy could be adjusted to the value that the CMS assigns for technologist wages. If one presumes that half of the current physician time is allocated to fluoroscopy and half to image interpretation and dictation, the impact could be as follows (using the 2003 CMS MFS RVU and conversion factor values for CPT code 74240 [UGI] [11], the RUC Harvard time for code 74240 [12], and CMS practice expense data for technologist salary [13]):

- physician work: 0.67 RVU = \$24.98; physician time (per RUC database): 14 minutes;
- physician cost per minute = \$1.78;
- radiologic technologist cost per minute = \$0.41 (per Bureau of Labor Statistics);
- revised physician work value using 7 minutes of physician time = \$12.46;
- add 7 minutes of radiologic technologist cost to “direct” practice expense paid to physician under global = \$2.87;
- sum of revised physician work and additional practice expense = \$15.33;
- \$24.98 – \$15.33 = \$9.65 loss per UGI, a 39% reduction.

Using the Medicare database for the total of all submitted procedures coded 74240 for 2000, this would result in a loss of reimbursement of \$1,362,195 nationwide.

## Case 2: Physician Bills Professional Component Only

The same coding issues would apply as in case 1. Regarding reimbursement, it is of note that in this scenario, the direct practice expense of the nonphysician labor is within the technical component, paid to the facility rather than the physician; thus, the impact on radiologist reimbursement could be even larger. Following the same format above, the physician work reimbursement is reduced from \$24.98 to \$12.46 (based on half as much physician time), with no increase in practice expense reimbursement, thus resulting in a 50% reduction in physician reimbursement. Using the same code frequency for 2000, the national impact would be \$1,746,403.

Admittedly, this is a hypothetical example, but the point remains that the shifting of physician work to extenders could potentially significantly affect the total and physician reimbursement for the procedures involved.

### WHEN COULD CHANGES OCCUR?

The entire MFS is reviewed at least every 5 years to identify potentially misvalued codes. The next such review is to begin in 2005, with the revised values to be implemented in January 2007. In addition, the CMS can request that the AMA's RUC reexamine the value of a code if it can provide compelling evidence that there has been a significant change in the performance of that procedure that necessitates a reconsideration of its value. If such a valuation change were to occur in the MFS, other payers would be likely to follow.

### SUMMARY AND MAJOR ISSUES

Although the use of physician extenders for radiology and radiation oncology services may allow physicians to more appropriately allocate their time and energy, increasing efficiency and allowing improved patient access to quality care, radiologists and radiation oncologists must be familiar with the impact the use of such individuals may have on

- proper procedure coding: there is no current CPT mechanism other than the addition of a reduced service modifier (-52) to differentiate between a procedure performed by a physician and the same procedure performed in part by an extender;
- satisfying level of physician supervision requirements” these would have to be addressed with the CMS for

any procedures on the “extender-eligible” list for which the use of the extender would violate current requirements;

- the valuation of physician work for procedures done in part by extenders: the CMS could request a reexamination of such procedures if performed “typically” using extenders; and
- the relative allocation of reimbursement to the professional and technical components of a given procedure, including shifting payment from the physician (practice component) to the facility (technical component) that employs the extender.

In the end, the performance of high-quality patient care must remain the cornerstone of the professions. The clinically appropriate use of extenders may have a positive effect, both in quality and net reimbursement. This can be accomplished, but don't count on the addition of extenders providing a free lunch!

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### REFERENCES

1. Friedenber R. The role of the supertechnologist. *Radiology* 2000;215:630-3.
2. Maynard D. Radiology: future challenges. *Radiology* 2001;219:309-12.
3. Duszak R, Mabry M. Clinical services in interventional radiology: results from the national Medicare database and a Society of Interventional Radiology membership survey. *J Vasc Intervent Radiol* 2003;14:75-81.
4. Thorwarth WT. From concept to CPT code to compensation: how the payment system works. *J Am Coll Radiol* 2004;1:48-53.
5. Medicare RBRVS: The physicians' guide. Chicago: American Medical Association Press; 2003.
6. American Medical Association. Physician Work RVS Update Survey. Chicago: American Medical Association.
7. American Medical Association. Direct Practice Expense RVS Update Survey. Chicago: American Medical Association.
8. 62 Federal Register 59058-59059 (1997).
9. U.S. transmittal B-01-28 Medicare program memorandum, Department of Health and Human Services, April 29, 2001.
10. Medicare carriers manual. Baltimore (MD): Centers for Medicare & Medicaid Services.
11. 80122 (2002). 67 Federal Register 79966.
12. American Medical Association. Relative Value System Update Committee database. Chicago: American Medical Association; 2002.
13. 66 Federal Register 40379 (2001).