REVIEW

The RUC: a primer for neurointerventionalists

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ABSTRACT

The Relative Value Scale Update Committee (RUC) plays a critical role in determining physician payment. When the Centers for Medicare and Medicaid Services (CMS) transitioned to paying physicians based on the Resource-Based Relative Value Scale, the American Medical Association developed this unique multispecialty committee. Physicians at the RUC determine the resources required to provide physician services and recommend appropriate payment for those services. The RUC then submits its recommendations to CMS. Physicians have thus been important in determining relative value and hence payment for the services they provide.

INTRODUCTION

The American Medical Association (AMA)/Specialty Society Relative Value Scale (RVS) Update Committee, also known as the RUC, is a critical component of valuing healthcare services, yet practicing neurointerventionalists (NIs) might not have detailed knowledge about its internal workings. Indeed, it could be difficult to comprehend that this relatively unknown group is responsible for recommending physician payment rates to the Centers for Medicare and Medicaid Services (CMS), and that historically their suggestions were largely (>90%) accepted. What is not hard to believe, once one understands the critical role the RUC plays in shaping reimbursement policy, is the tremendous effort specialty society volunteers and staff dedicate to having a voice at the table.

HISTORY

In a series of landmark articles in the 1980s, Hsiao *et al* proposed a Resource-Based Relative Value Scale (RBRVS) to estimate physician work.[1 2] Until such a system was introduced, it was common for insurers to pay for physician services based on what was termed 'usual, customary and reasonable' fees.

The Harvard School of Public Health group's concerns related to their perception of the non-competitive nature of the healthcare market. They believed that patient's insensitivity to fees as a result of third party insurance coverage diminished competitive forces and led to market distortion. The group sought to propose a more rational approach to paying for healthcare.

These perspicacious researchers proposed that reimbursement schemes be based on the resource input cost, a fairly novel concept. The authors theorized that three major resource inputs comprised the overall cost of medical services: (1) the total work input by the physician; (2) practice costs, including the cost of malpractice insurance; and (3) the opportunity costs of postgraduate training to become a qualified specialist. Further, Hsiao *et al* proposed subdividing physician work into pre-service, intra-service and post-service periods, and considered total physician work to be composed of the time required to perform a service, the technical skill and judgment necessary and the stress level related to providing same. This algorithm has been maintained to the present day, and defines the ongoing activities of the RUC.

The work of Hsaio and colleagues became part of public policy when President George H W Bush signed into law the Omnibus Budget Reconciliation Act of 1989. This historic act switched Medicare to an RBRVS payment schedule beginning 1 January 1992. CMS publishes updates to this physician fee schedule annually in the Federal Register, first in a Proposed Rule typically released in July and then in a Final Rule following public comment and possible revision in early November. The updated fee schedule takes effect on the first day of the calendar year each January.

THE RUC AND THE PRESENT DAY

The RBRVS is based on the concept that payment for medical services should be directly tied to the discrete resources required to provide those services. In the RVS the resources required for a service can be divided into three distinct components that are determinative of final payment: (1) physician work; (2) practice expense; and (3) cost of professional liability insurance. Through a complex mathematical formula, the three components are assessed and then multiplied by a conversion factor. The conversion factor is statutorily determined and updated yearly by CMS. Payments are also adjusted for differences in geographic location. The RUC is primarily concerned with determining the appropriate valuation of medical and surgical procedures, maintaining accurate relativity among those procedures and forwarding recommendations for code valuation to CMS.[3–5]

The RUC itself includes 31 voting members. Most are physician representatives of the larger medical and surgical specialty societies including the American College of Radiology (ACR) and the American Association of Neurological Surgeons (AANS). Four rotating seats are filled by election by the RUC itself, with one of those seats designated for primary care. Additional seats are assigned to representatives from the AMA, the AMA/Current Procedural Terminology Editorial Panel (CPT EP), the American Osteopathic Association and a group representing allied healthcare professionals (eg, podiatry). CMS is represented as well, although

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included as participating observers rather than voting members.

The RUC members are not there to represent the interests of the society that nominated them, but to serve as objective panelists valuing medical and surgical procedures independently. This is a deliberative body whose goal is to 'get it right'.

The interests of the specialty societies are represented at RUC meetings by their RUC advisors. The specialty society RUC advisors are charged with developing and recommending 'relative values' of procedures that their specialty performs and presenting these recommendations to the RUC panel.

The CPT code set describes medical, surgical and diagnostic services and is designed to communicate uniform information about these services and procedures among physicians, coders, patients, accreditation organizations and payers for administrative, financial and analytical purposes. Like the RUC, the CPT process and code set are maintained by the AMA through a committee—in this case, the CPT EP. The CPT EP meets three times a year to approve new procedural codes, revise existing codes and delete codes no longer in use. This CPT process goes hand in hand with the RUC process in that newly approved or revised CPT codes are subsequently valued at the RUC.

The CPT and the RUC clearly have a critical interplay. Like the RUC, the CPT Panel is comprised of representatives from major medical societies and the AMA whose goal is to craft the descriptions of the CPT procedures impartially and, like the RUC, specialty societies send advisors to the Panel meetings to make recommendations and assist in the process.

A society can present a new technology or procedure to CPT; if approved, it will be assigned a new CPT code. This new CPT code is then sent to the RUC for valuation. Traditionally, this was the major role of the RUC. More recently, however, both the CPT EP and the RUC have found that the bulk of their work consists of reviewing existing codes at the request of CMS. In recent years, many neuroradiology and radiology codes have been reviewed at the RUC due to CMS assertions that they may be 'potentially misvalued'.

CMS, the RUC and the specialty societies are in an interdependent relationship. In order to obtain resource-based data, specialty societies conduct surveys of their membership regarding professional work and obtain detailed information regarding typical practice expenses from their members. Readers of this article may recall receiving survey requests regarding procedures they perform. Recent examples include diagnostic carotid and cerebral angiography, myelography, spinal injection procedures and vertebral augmentation. The societies analyze the survey data and develop a 'Summary of Recommendations' for the RUC panel. These standardized documents provide the RUC with a uniform perspective as to the societies' opinions of the relative value of the service or the procedure.

To the credit of Hsaio *et al*, the RUC not only values a code with inputs as to pre-, intra- and post-service procedural work time; surveys also request detailed information regarding the physician work as far as the mental and physical stress engendered by and required to perform the procedure—including the potential risk for a malpractice suit specific to the procedure. An important aspect of this review is comparison with existing codes, referred to as key reference services.

Underlying all discussions at the RUC is the assumption and legally binding rule of budget neutrality (or the zero-sum model). This means that an increase in reimbursement for any given procedure can result in a potential decrease in reimbursement for other procedures.

The RUC strives to achieve objective resource-based professional and technical valuations for medical and surgical procedures in order to have them fit logically and appropriately into the RVS. Historically, the RUC's careful methodology and rigorous debates have led CMS to accept the vast majority of RUC recommendations—over 95% up to a few years ago. However, that trend has changed in recent years. With increasing frequency, CMS has disagreed with RUC valuations and has devalued services in their Final Rule. For example, in 2010 CMS only agreed with 75% of the RUC's recommendations in its fourth 5-year review of the RBRVS (table 1).[6]

To date, the RUC has reviewed about two-thirds of the codes in use, which number over 7000. There are three categories of code valuations. The first is a RUC-reviewed code, a procedure which has been evaluated by the process described above. The second is the 'Harvard-valued' code set which dates back to the work by Hsaio and colleagues described earlier in this article and includes values accepted into the initial RBRVS and not since reviewed. The third is the 'CMS/Other' code designation; most of these codes were reviewed by the RUC in the early 90s, many during the first 5-year review, but not in the same survey-driven manner as other RUC surveyed codes. Accordingly, they are considered similar to the Harvard-valued codes in that re-survey is more likely than codes surveyed by the RUC since the first 5-year review. CMS would prefer that all codes be valued through the RUC process, and the RUC has made incremental progress toward this goal via code screens for

Table 1 History of RUC recommendations

Year	Recommendations submitted (number of CPT codes)	Work relative values at or above RUC recommendations (after completion of refinement process) (%)
CPT 1993	253	79
CPT 1994	561	89
CPT 1995	339	90
CPT 1996	196	90
CPT 1997	90	96
CPT 1998	208	96
CPT 1999	70	93
CPT 2000	130	88
CPT 2001	224	95
CPT 2002	314	95
CPT 2003	350	96
CPT 2004	162	96
CPT 2005	149	99
CPT 2006	283	97
CPT 2007	230	98
CPT 2008	169	100
CPT 2009	233	97
CPT 2010	216	98
CPT 2011	292	82*
CPT 2012	252	87
First 5-year review (1997)	1118	96
Second 5-year review (2002)	870	98
Third 5-year review (2007)	751	97
Fourth 5-year review (2012)	290	75

*CMS applied a budget neutrality adjustment for additional services in a way contrary to the RUC recommendations.
CPT, Current Procedural Terminology; RUC, Relative Value Scale Update Committee.

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Harvard-valued and CMS/Other codes. Ultimately, however, there is acknowledgement that it might not be possible to review every code. Accordingly, recent focus has been placed upon codes resulting in higher expenditures for the Medicare program.

Implicit in valuing any procedure on a resource basis is the knowledge that circumstances affecting resource use might change. Changing circumstances might relate to maturation of a technology, an increase in use, changes in site of service or a change in the dominant specialty providing the service. Specifically, the RUC concerns itself with changes in technology making a procedure easier and hence quicker to do (less work) or changes in the procedure that suggest providers might be more efficient (less work).

To preserve the rigor of the RUC database, a 5-year review process was instituted from the outset of the RBRVS. The stated mission for the 5-year review was to check the relativity of the entire RBRVS no less than every 5 years and to revise codes as necessary. Historically, CMS has looked to the RUC to administer the 5-year review. On a practical basis, only a certain percentage of the code set could be checked in this way. In 2005, after the third 5-year review occurred, a rolling process was instituted to better address the volume of work. A RUC subcommittee called the 5-Year Review Workgroup was created; this has since been renamed the Relativity Assessment Workgroup (RAW).

As part of its review process, the RAW's tasks have included referral of 'potentially misvalued codes' to the RUC panel for re-evaluation. The RAW has selected some of these codes through its own screening criteria, and CMS has made direct requests that the RAW review certain codes or categories of codes. Of particular interest to interventionalists, one of the criteria for referral of procedures to the RAW for review has been that of 'codes frequently reported together'. The theory is that, if two separate CPT codes are commonly reported by the same physician on the same day for the same patient, then perhaps in reality they should not be considered two separate procedures but are part-and-parcel of one procedure with work efficiencies ensuing. Given the historical role played by component coding in interventional procedures, it is not surprising that individual codes (such as surgical-procedural codes and their radiological supervision and interpretation counterparts (S&I codes)) are often reported together and have fallen into this screen repeatedly. This has led, in part, to the recent spate of new bundled code sets that describe certain interventional procedures in a more global manner and that 'bundle' the S&I work that was previously reported separately.[7]

The RUC also reviews practice expenses on a code-by-code basis. CMS reimburses practice expenses through its practice expense methodology. This is broken down into direct expenses (those directly related to a CPT code service such as ancillary staff, imaging equipment and catheters) and indirect expenses (those not directly related to a specific CPT code such as utilities or front office staff). Specialty societies are required to be granular in their presentation to the RUC and to detail the appropriate staff members needed and equipment used during a procedure (including actual supply counts). These direct expenses are reviewed by the Practice Expense Subcommittee of the RUC. After debate and approval, these direct practice expense inputs are then submitted to CMS for inclusion in the payment formula. As noted earlier, RUC recommendations need to be essentially budget neutral, with a few exceptions. As such, expansion in the practice expense for one group or procedure has the potential to impact other specialties through compensatory diminution of their reimbursement.

Twice each year, CMS publishes its decisions via the Proposed Rule (the Notice of Proposed Rulemaking, NRPM) in July and then in the Final Rule (the Medicare Physician Fee Schedule Final Rule) in November. Societies carefully review the information contained in these reports and often choose to make formal comment to CMS. The American Society of Neuroradiology (ASNR), ACR and Society of Interventional Radiology (SIR) do this regularly for each Proposed and Final Rule. Specialty society journals and websites frequently disseminate relevant information to their membership from these critical publications.[8 9]

CONCERNS WITH THE RUC

The lay media have shown an increased awareness of the RUC's critical role in recent years. Much of the discussion has not been favorable. For example, the RUC has been criticized for having too much influence on reimbursement rates for physicians; that they work in secret; and that their 'questionable' methodology invariably favors specialists over primary care providers.[10] This was exemplified by a primary care physician group enacting a federal lawsuit against the AMA (the parent body of the RUC) in 2010. They argued that the RUC was acting as a federal advisory body and, as such, needed to be held to specific standards for federal advisory bodies. The AMA has always asserted that the RUC is simply an expert panel that makes recommendations to CMS based on its First Amendment right to petition the government, and does not 'set' fees or actually pay physicians. The suit was ultimately dismissed, and the AMA has repeatedly argued against these and other criticisms. However, the RUC did vote in early 2012 to create two new seats dedicated to primary care physicians and to increase the transparency of its voting procedures somewhat.[11]

SUMMARY

The RUC is an influential group of medical professionals that plays a key role in how individual services and procedures are valued by CMS. While the RUC process is standardized and proceeds in a manner that strives for objectivity and fairness, there are stakeholders that view themselves as disenfranchised and that favor abolishing the RUC process.

NIs do not hold a seat at the RUC, nor do they have an advisor to the RUC; these are usually only allotted to societies that are represented in the AMA House of Delegates. Typically, we have enjoyed support from and been represented by friendly societies like the ACR, the ASNR, AANS and the SIR.[12] At recent meetings, NIs have collaborated with multiple societies in preparing a number of interventional pain procedure code presentations and the new diagnostic carotid angiography code set to the RUC for valuation.[13]

Some NIs harbor a sense of mistrust and perceived unfairness in the Medicare payment system. Reasons include lack of standard reimbursement for CT perfusion, a non-coverage decision for intracranial angioplasty and a perceived inappropriate valuation for carotid artery balloon test occlusion.

While most radiologists would agree that the Medicare payment policy deck has recently been stacked against them, this review article may serve to remind readers that there are several different forces at work in the world of reimbursement. Congress and the Secretary of Health and Human Services have exercised legislative and direct regulatory powers to thin the revenue stream: the Deficit Reduction Act of 2006, the Multiple Procedure Payment Reduction policy and the Affordable Care Act of 2011 are prime examples that have been discussed elsewhere.[12]

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In contrast, the RUC is an influential and deliberative body committed to fairness and relativity, consisting entirely of physicians (and a few non-physician providers). Individuals and specialty societies are allowed the opportunity to argue their case and persuade their colleagues of the legitimacy of their relative value unit (RVU) recommendations.

CMS still possesses ultimate authority in setting RVU values and reimbursement policies for Medicare patients. Lately, it has regarded RUC recommendations with a more critical eye—and pen. Nevertheless, the RUC remains a forum wherein physicians themselves can directly and indirectly affect payment policy, standing as a rare oasis where NIs and other subspecialists can describe what they do and have the chance to make an impact.

CONCLUSION

There are multiple codes critical to the performance of neurointerventional surgery in the CPT/RUC pipeline—most have been identified by the RAW or by CMS as being potentially overvalued or as possible bundling targets. Interested members of the Society of NeuroInterventional Surgery (SNIS) should consider advocating their interests through those societies that are currently active at the RUC—such as ASNR, ACR, SIR and AANS, among others. SNIS should consider officially encouraging AMA membership among its own members in an attempt to gain representation at the CPT panel and the RUC.[14] In that way, we can most clearly serve our profession, our community and ultimately the patients we treat.

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