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**Organization :** American Association of Orthopaedic Surgeons

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**Issue Areas/Comments**

**GENERAL**

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AAOS comments on work RVUs from the Five-Year Review for orthopaedic surgery, spine surgery, and evaluation and management codes are provided in full in the Attached Document.

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American Academy of  
Orthopaedic Surgeons

AAOS

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August 21, 2006

Mark B. McClellan, MD, PhD  
Administrator  
Centers for Medicare & Medicaid Services  
Department of Health and Human Services  
Attention: CMS-1512-PN  
P.O. Box 8014  
Baltimore, MD 21244-8014

**Re: Five-Year Review of Work Relative Value Units Under the Physician Fee  
Schedule and Proposed Changes to the Practice Expense Methodology –  
CMS-1512-PN**

Dear Administrator McClellan:

The American Association of Orthopaedic Surgeons (AAOS) appreciates the opportunity to comment on the Centers for Medicare & Medicaid Services (CMS) proposed rule on *Five-Year Review of Work Relative Value Units Under the Physician Fee Schedule and Proposed Changes to the Practice Expense Methodology*, 71 Fed. Reg. 125 (June 29, 2006). These comments cover work relative value units (work RVUs) for orthopaedic surgery, spine surgery, and evaluation and management codes. The AAOS will submit a separate set of comments on the proposed changes to the practice expense methodology and the proposed mechanisms to maintain budget neutrality.

While the AAOS is disappointed by some of the decisions made by CMS in the *Proposed Rule*, we must state at the outset that we are committed to working with CMS on the broad range of initiatives on which we have continually cooperated. The AAOS commitment to quality care for our patients and access to care for Medicare beneficiaries is pervasive in the prioritization of our efforts. It is for these reasons that the AAOS seeks opportunities to work with CMS in those areas that secure quality care and access to care. The AAOS has dedicated significant resources to the development of evidence-based guidelines and quality measures and has actively participated in CMS deliberations on the structure of quality programs for Medicare beneficiaries. In meetings with you, we have shared data on how to improve CMS' Premier Hospital Quality Demonstration Project for total joint replacement. In order to create a system in which physicians have the information that they need to best treat patients and track long term outcomes, the AAOS has had several meetings with key CMS staff regarding the creation of a national joint replacement registry. These and other AAOS efforts demonstrate our dedication to the quality and access concerns that CMS shares.

However, we are perplexed by CMS' proposal to overturn the RUC recommendations and reduce the work values of several highly important orthopaedic services. It is common

knowledge that the cost of delivering care is continuing to increase along with demand for medical services by our ever-expanding aging population. Given this situation, along with our continual work with CMS, it is difficult for us to understand CMS' decision to propose a decrease in the work values of these procedures, against the RUC's recommendations. If CMS implements its proposal, we strongly believe that Medicare beneficiaries will begin experiencing difficulties obtaining access to these services from the highly qualified orthopaedists that are currently performing them.

Given this concern, we request that CMS give due respect to the RUC process and recommendations, review the facts and history of the Five-Year Review and reconsider its proposal to lower the value of these codes. We discuss this in much more detail below in the section on Total Joints and Fracture Procedures.

### **DISCUSSION OF COMMENTS – ORTHOPAEDIC SURGERY**

The AAOS appreciates the opportunity to work with CMS in the refinement of work RVUs through the AMA/Specialty Society Relative Value Update Committee (RUC). The AAOS continues to believe it is important for CMS to work with the medical community through the RUC to develop relative work RVUs for the Medicare Physician Fee Schedule.

#### **Tumor Procedures**

The AAOS agrees with CMS' recommendation to maintain the current work RVUs for the 25 musculoskeletal tumor procedures pending clarification by the CPT Editorial Panel. The AAOS will work with the CPT Editorial Panel to resolve any ambiguities in the descriptors for the identified tumor procedures. Once acceptable descriptors are approved by the CPT Editorial Panel, the AAOS will use the RUC-approved mini-survey methodology to develop work RVU recommendations. The AAOS expects to present the RUC with the Five-Year Review work RVU recommendations for the tumor procedures in early 2007.

#### **Trauma Procedures**

<b>CPT CODE</b>	<b>DESCRIPTOR</b>	<b>Current wRVU</b>	<b>RUC Recommended wRVU</b>	<b>CMS Proposed wRVU</b>
20680	Removal of implant; deep (eg, buried wire, pin, screw, metal band, nail, rod or plate)	3.34	5.86	5.86
20692	Application of a multiplane (pins or wires in more than one plane), unilateral, external fixation system (eg, Ilizarov, Monticelli type)	6.40	REFER TO CPT	REFER TO CPT
24430	Repair of nonunion or malunion, humerus; without graft (eg, compression technique)	12.79	14.00	14.00
27465	Osteoplasty, femur; shortening (excluding 64876)	13.85	17.50	17.50
27470	Repair, nonunion or malunion, femur, distal to head and neck; without graft (eg, compression technique)	16.05	16.05	16.05

27472	Repair, nonunion or malunion, femur, distal to head and neck; with iliac or other autogenous bone graft (includes obtaining graft)	17.69	REFER TO CPT	REFER TO CPT
27709	Osteotomy; tibia and fibula	9.93	16.50	16.50
27720	Repair of nonunion or malunion, tibia; without graft, (eg, compression technique)	11.77	REFER TO CPT	REFER TO CPT

The AAOS agrees with CMS' work RVU recommendations for the trauma procedures identified above. The AAOS understands that the work RVUs for 20692, 27472, and 27720 cannot be finalized until the CPT Editorial Panel addresses the Modifier -51 issue for these codes. However, as soon as this issue is resolved, the AAOS intends to present the RUC with Five-Year Review work RVU recommendations.

### Total Elbow and General Procedures

CPT CODE	DESCRIPTOR	Current wRVU	RUC Recommended wRVU	CMS Proposed wRVU
24363	Arthroplasty, elbow; with distal humerus and proximal ulnar prosthetic replacement (eg, total elbow)	18.46	21.07	21.07
20600	Arthrocentesis, aspiration and/or injection; small joint or bursa (eg, fingers, toes)	0.66	0.66	0.66
20610	Arthrocentesis, aspiration and/or injection; major joint or bursa (eg, shoulder, hip, knee joint, subacromial bursa)	0.79	0.79	0.79
29075	Application, cast; elbow to finger (short arm)	0.77	0.77	0.77

The AAOS agrees with CMS' work RVU recommendations for the elbow and general musculoskeletal procedures identified above. The AAOS appreciates CMS' decision to fully adopt the RUC recommendation for these procedures.

### Wrist, Hand, and Finger Procedures

CPT CODE	DESCRIPTOR	Current wRVU	RUC Recommended wRVU	CMS Proposed wRVU
25447	Arthroplasty, interposition, intercarpal or carpometacarpal joints	10.35	10.35	10.35
26055	Tendon sheath incision (eg, for trigger finger)	2.69	2.69	2.69
26160	Excision of lesion of tendon sheath or joint capsule (eg, cyst, mucous cyst, or ganglion), hand or finger	3.15	3.15	3.15

26600	Closed treatment of metacarpal fracture, single; without manipulation, each bone	1.96	2.40	2.40
26951	Amputation, finger or thumb, primary or secondary, any joint or phalanx, single, including neurectomies; with direct closure	4.58	5.25	5.25
64702	Neuroplasty; digital, one or both, same digit	4.22	5.52	5.52
64721	Neuroplasty and/or transposition; median nerve at carpal tunnel	4.28	4.28	4.28

The AAOS agrees with CMS' work RVU recommendations for the elbow and general musculoskeletal procedures identified above. The AAOS appreciates CMS' decision to fully adopt the RUC recommendation for these procedures.

#### **Total Joints and Hip Fracture Procedures**

<b>CPT CODE</b>	<b>DESCRIPTOR</b>	<b>Current wRVU</b>	<b>RUC Recommended wRVU</b>	<b>CMS Proposed wRVU</b>
27130	Arthroplasty, acetabular and proximal femoral prosthetic replacement (total hip arthroplasty), with or without autograft or allograft	20.09	20.09	15.96
27236	Open treatment of femoral fracture, proximal end, neck, internal fixation or prosthetic replacement	15.58	15.58	12.77
27447	Arthroplasty, knee, condyle and plateau; medial AND lateral compartments with or without patella resurfacing (total knee arthroplasty)	21.45	21.45	19.30

#### **AAOS and RUC Action:**

The AAOS is disappointed that CMS did not adopt the RUC's recommendations for CPT codes 27130, 27236, and 27447. The AAOS believes CMS misunderstood the method used to develop the work RVUs for these three procedures. This misunderstanding is reflected in the *Proposed Rule* where it states that "[t]he specialty society used survey data, as well as NSQIP data and Medicare DRG data, to evaluate pre-service and intra-service times for these codes. The workgroup, as well as the RUC, was uncomfortable with mixing data from three separate sources in lieu of the established and accepted methodology of the RUC. The specialty society maintained the NSQIP data was more accurate than the survey data."

During an August 2006 meeting with CMS representatives to discuss the *Proposed Rule*, it was evident a misunderstanding did exist and that CMS believed a RUC survey had not been performed. However, the AAOS work RVU recommendations for these codes are based on a survey conducted by the AAOS, and are the result of extensive RUC review and discussion. In order to clarify the events that took place, below is a chronology that summarizes the AAOS' activities with respect to the recommendations for 27130, 27236, and 27447.

August 2005 RUC Workgroup Meeting:

In preparation for the August 2005 RUC Workgroup Meeting, the AAOS attempted to conduct a RUC survey. However, survey results were flawed because most survey respondents stated the vignette used for the surveys did not represent the typical patient. In lieu of a RUC survey, the AAOS submitted RUC recommendations based on NSQIP and DRG data. The AAOS believed it was appropriate to base its RUC recommendations on NSQIP and DRG because these databases contained accurate time and visit information based on a high volume of cases. In addition, prior to the Five-Year Review, the RUC Research Subcommittee approved the use of the NSQIP database to develop work RVU recommendations. However, at the August meeting, the Workgroup and CMS expressed serious reservations about work RVU recommendations based solely on NSQIP and DRG data and urged the AAOS to conduct another survey within one month and present the survey data to the Workgroup and RUC at the September 2005 meeting. *See APPENDIX A for August 2005 Workgroup Recommendations.*

September 2005 Workgroup Meeting:

The AAOS worked hard during the 30 days following the August 2005 Workgroup meeting to comply with all RUC and CMS requests for a survey. The AAOS revised the survey vignettes for 27130, 27236, and 27447 to ensure they reflected the typical patient. The AAOS then sent out another survey to its members. Using the survey results, the AAOS presented work RVU recommendations for 27130, 27236, and 27447 to the September 2005 Workgroup, all of which the Workgroup accepted. The AAOS also presented information from the NSQIP database because it contained significantly more objective data (eg, 8998 cases for 27130) than the AAOS survey results (eg, 40 RUC surveys for 27130). With respect to the hospital visit data, the NSQIP database was consistent with the RUC survey results. However, when the AAOS compared the NSQIP and RUC survey intra-service times, the AAOS expert panel noted the intra-service times from the survey fell within a wide reported range and that the median intra-service time was inconsistent with surgical expectations. In light of the inconsistencies with the intra-service times from the RUC survey, the AAOS *suggested* the Workgroup adopt the median intra-service time from the NSQIP database because it is based on significantly more data elements that reflect *actual* operating room times than the 40 completed RUC survey *estimates* of time and was consistent with surgical expectations. **However, the AAOS did not use the intra-operative and hospital visit data from these other sources to develop its work RVU recommendations.** As stated earlier, the AAOS relied on survey data and magnitude estimation to develop its work RVU recommendations for 27130, 27236, and 27447, and only suggested to the Workgroup that the high volume database times would be more accurate for use in the RUC database. The Workgroup considered the NSQIP data and ultimately chose to adopt the NSQIP intra-operative times. *See APPENDICES B, C, and D for Summary of Recommendation forms submitted to September 2005 Workgroup and RUC.*

September 2005 RUC Meeting:

At the September 2005 RUC meeting, the Workgroup presented its recommendations to the full RUC. The Workgroup recommended the RUC adopt the AAOS recommendations to maintain the existing work RVUs for 27130, 27236, and 27747 because they were based on survey data. Furthermore, the Workgroup recommended the RUC adopt the NSQIP data for these three codes because the NSQIP contained significantly more objective data (eg, 8998 cases

for 27130) than the AAOS survey results (eg, 40 RUC surveys for 27130). The full RUC voted unanimously to accept the recommendations of the Workgroup, and agreed to maintain the existing work RVUs for 27130, 27236, and 27447.

The AAOS notes there is precedent for the RUC's decision to use survey work RVUs while changing intra-operative times. There are many instances where the RUC recommended times other than survey times to CMS and for the RUC database. Sometimes these times were based simply on a discussion at the meeting and a "feeling" that a certain time was too high, too low, or just did not make sense. In these instances, some elements of the survey data were discarded for a RUC-approved time.

**From the chronology above, it should be clear the AAOS presented recommendations based on survey data. The fact that surveys were the primary basis for the AAOS and RUC recommendations is also reflected in the RUC rationale for work RVU recommendations sent to CMS. See APPENDIX E for September 2005 Workgroup and RUC Recommendations. The AAOS conducted a RUC survey and used magnitude estimation to develop its work RVU recommendations for 27130, 27236, and 27447.** This is the primary method the RUC uses to develop work RVU recommendations under the Medicare Physician Fee Schedule. The AAOS RUC surveys resulted in a median work RVU of 20.50 for 27130, 19.17 for 27236, and 21.50 for 27447. Even though the median survey results suggested higher work RVUs for all three codes, the AAOS did not recommend increases. Instead, the AAOS recommended no change in work RVUs for these three codes.

The AAOS emphasizes the RUC "did not find any compelling evidence to change the current work RVUs assigned to these services. Based on a review of the survey data, the RUC recommended maintaining the current work RVUs of 20.09 for CPT code 27130, 15.58 for CPT code 27236 and 21.45 for CPT code 27447, but also recommended using the new physician time data for each of these services." This new data was a blend of survey data and database data.

The AAOS believes it followed RUC protocol. The AAOS developed its work RVU recommendations based on survey data and used NSQIP data as an *adjunctive* methodology to credit or discredit survey data.

### **Use of Comparison Codes:**

In reviewing the *Proposed Rule*, it is clear that CMS did not use the submitted RUC-approved time and visit data to develop its recommendations for 27130, 27236, and 27447. The AAOS is perplexed with the method CMS used to develop its recommendations. As an example, for 27130, CMS cites time and visit data from the Harvard study for 27130 and two completely disassociated and arbitrary reference codes as comparable in terms of physician work. A more detailed discussion of these comparison codes is provided below.

We remind CMS that the Harvard study and the RUC process for comparison has always started within a specialty's own set of codes and then may migrate to other references as needed, but this is always coupled with a discussion of similarities and differences of pre-, intra-, and post-service work. It is unclear what clinical rationale CMS used to choose its references and develop its proposed recommendations. The AAOS believes that unless CMS can provide actual data and a rationale to justify an increase or decrease in work RVUs for 27130, 27236, and 27447, it should not change the work RVUs for these three codes. The AAOS believes it is unfair for CMS to adopt its own methodology to develop work RVUs for these codes while disregarding the enormous amount of time and effort that went into the process for developing

RUC-approved recommendations that are based on a RUC survey of 40 respondents and databases that include thousands of cases.

Aside from the process issues related to CMS' proposed values, the AAOS believes there are several flaws with the methodology and comparison codes that CMS used to value 27130, 27236, and 27447. As stated above, the AAOS believes there is no rational basis for comparing 27130 *Total hip replacement* to code 43641 *Vagotomy including pyloroplasty, with or without gastrostomy; parietal cell (highly selective)* and code 60260 *Thyroidectomy, removal of all remaining thyroid tissue following previous removal of a portion of thyroid*. First, we cannot perceive any possible clinical comparison in either patient presentation or procedure. From a purely clinical standpoint, it does not make sense to compare a surgical intervention in which no implant is placed in the patient versus a total joint procedure where an implant is used. A modern day total hip replacement has over 150 different trial instruments and requires additional pre-operative planning and templating. Second, the utilization data distinguishes 27130 from 43641 and 60260. Code 27130 is a high-volume procedure, performed over 108,000 times annually in the Medicare patient population. In contrast, the total combined utilization for 43641 and 60260 is less than 1,000. Additionally, the pre-time, intra-time, post-time, hospital visits, and office visits for 43641 and 60260 bear no similarity to either the Harvard data or the RUC-approved data for 27130. Most importantly, the work RVUs for 43641 and 60260 were not based on RUC survey data. Instead, the work RVUs for both comparison codes were developed by calculating a percentage increase from the existing work RVUs for 43641 and 60260, as a default (not by detailed RUC review). Because a "percentage" methodology was used to develop the work RVUs for CMS' comparison codes, the AAOS believes it is inappropriate for CMS to apply building block subtractions to 43641 or 60260 since that methodology was not used (or even considered) in developing the existing work RVUs for either procedure. Thus, CMS' suggestion to "remove two hospital days" from 43641 to derive a value for 27130 is an arbitrary reduction without a basis in any existing Harvard or RUC methodology – which are the bases for the Fee Schedule relativity.

There are also problems with the comparison codes CMS selected for 27236 *Treatment of hip fracture*. First, CMS suggests that code 34421 *Thrombectomy, direct or with catheter; vena cava, iliac, femoropopliteal vein, by leg incision*, code 47600 *Cholecystectomy* and code 27236 are within a "family of codes" and that the proposed work RVUs would maintain relativity. However, these three procedures are very different from each other and do not warrant being classified as a "family." Therefore, there is no clinical rationale for CMS' suggestion of using the median (statistically, this should read "average") work RVUs for two codes (34421 and 47600) to calculate a work RVU for 27236. To our knowledge, Harvard, the RUC, and CMS have never used this methodology to calculate a work RVU. Further, the pre-time, intra-time, post-time, hospital visits, and office visits for 34421 and 47600 bear little similarity to either the Harvard data or AAOS survey data for 27236.

The AAOS believes the comparison code selected for 27447 *Total knee replacement* is inappropriate for several reasons. CPT 35671 *Bypass graft, with other than vein; popliteal-tibial or -peroneal artery* was performed less than 500 times annually. In contrast, 27447 was performed more than 245,000 times annually on Medicare beneficiaries. Second, the work RVU for 35671 was developed using a mini-survey and discussion of comparability to other higher volume codes, because 35671 is so infrequently performed. Third, the hospital and office visit pattern for the two procedures are very different. Fourth, from a purely clinical standpoint, it does not make sense to compare a surgical intervention in which no implant is placed in the

patient versus a total joint procedure where an implant is used. A modern day total knee replacement has over 200 different trial instruments and requires additional pre-operative planning and templating. Given all of these factors, the AAOS believes it is improper to impute a new work value based on comparison to a procedure that has no similarity to 27447.

The AAOS believes more appropriate comparison codes for 27130, 27236, and 27447 can be found using the standard RUC review methodology. First, the AAOS examined the reference codes in the Reference Services List (RSL) that was used for each RUC survey (all of the RSL codes are based on RUC review). The orthopaedic “RSL” offers a range of high-volume orthopaedic services with stable and accepted work RVUs. Second, the AAOS examined the Multi-Specialty Points of Comparison (MPC) list of codes for RUC-reviewed codes (Category A) with similar work RVUs and time/visit details. The table below is sorted in work RVU order and presents codes from both the RUC survey RSL and the RUC MPC, with the details for 27130, 27236, and 27447 inserted. With the exception of code 27236, which appears undervalued, the relativity of these high volume references is significant. Please keep in mind that the length of stay (LOS) and number of office visits, as shown, does not necessarily indicate that the levels of visits are all the same. Differences in levels of visits are reflected in the total times shown.

<b>Source</b>	<b>CPT</b>	<b>Short Descriptor</b>	<b>Work RVU</b>	<b>Total Time</b>	<b>Intra Time</b>	<b>LOS</b>	<b>Off Visits</b>
RSL	<b>29807</b>	Shoulder arthroscopy/surgery	<b>13.88</b>	284	90	1	5
MPC	<b>33249</b>	Eltrd/insert pace-defib	<b>14.21</b>	249	120	0	3
RSL	<b>29827</b>	Arthroscop rotator cuff repr	<b>15.34</b>	328	120	1	5
<b>SURVEY</b>	<b>27236</b>	<b>Treat thigh fracture</b>	<b>15.58</b>	<b>447</b>	<b>90</b>	<b>6</b>	<b>4</b>
MPC	<b>19318</b>	Reduction of large breast	<b>15.60</b>	336	150	1	4
MPC	<b>58150</b>	Total hysterectomy	<b>15.98</b>	379	120	5	2
MPC	<b>34203</b>	Removal of leg artery clot	<b>16.48</b>	397	108	5	3
MPC	<b>22554</b>	Neck spine fusion	<b>18.59</b>	392	120	3	4
RSL	<b>27486</b>	Revise/replace knee joint	<b>19.24</b>	463	150	6	4
RSL	<b>27580</b>	Fusion of knee	<b>19.34</b>	444	150	5	4
MPC/RSL	<b>22595</b>	Neck spinal fusion	<b>19.36</b>	492	150	5	4
MPC	<b>35656</b>	Artery bypass graft	<b>19.50</b>	439	150	6	2
MPC	<b>35141</b>	Repair defect of artery	<b>19.97</b>	412	150	4	2
<b>SURVEY</b>	<b>27130</b>	<b>Total hip arthroplasty</b>	<b>20.09</b>	<b>462</b>	<b>135</b>	<b>5</b>	<b>4</b>
MPC	<b>44140</b>	Partial removal of colon	<b>20.97</b>	462	150	7	3
MPC	<b>22612</b>	Lumbar spine fusion	<b>20.97</b>	470	150	5	4
MPC	<b>24363</b>	Replace elbow joint	<b>21.07</b>	451	150	4	4
RSL	<b>23472</b>	Reconstruct shoulder joint	<b>21.07</b>	443	165	4	4
<b>SURVEY</b>	<b>27447</b>	<b>Total knee arthroplasty</b>	<b>21.45</b>	<b>451</b>	<b>124</b>	<b>5</b>	<b>4</b>
MPC	<b>34802</b>	Endovas aaa repr w/2-p part	<b>22.97</b>	448	150	3	2
RSL	<b>27227</b>	Treat hip fracture(s)	<b>23.41</b>	542	180	7	4
RSL	<b>27284</b>	Fusion of hip joint	<b>23.41</b>	482	180	5	3
MPC	<b>32480</b>	Partial removal of lung	<b>23.71</b>	552	155	7	3

RSL	27487	Revise/replace knee joint	25.23	513	200	6	4
MPC	44626	Repair bowel opening	25.32	524	150	8	2

As shown above, there is compelling evidence to maintain the existing work RVUs for all three procedures. The AAOS believes it is inappropriate for CMS to suggest significant reductions in work RVUs for all three procedures when the RUC survey data and an analysis of comparison codes suggests the current work RVUs are appropriate.

The AAOS also notes a reduction in the work RVUs for these procedures will create a rank-order anomaly when compared to other procedures in the total joint family. For example, 24363 *Arthroplasty, elbow; with distal humerus and proximal ulnar prosthetic replacement (eg, total elbow)* has a proposed work RVU of 21.07. Similarly, 23472 *Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder))* has a current work RVU of 21.07. The AAOS believes the work values proposed by CMS for 27130 (work RVU = 15.96) and 27447 (work RVU = 19.30) will create significant inconsistency within the total joint family of procedures that do not reflect current clinical practice and expectations.

Finally, the AAOS notes that the CMS proposed values would result in reimbursement levels for these extensive procedures on elderly patients, many of whom have significant comorbidities, that are lower than if the surgeons used their total global period time to provide multiple mid-level outpatient E/M services (99213). Clearly, the intensity of work for these procedures is greater than the typical patient/service for 99213: “Office visit for a 55-year-old established patient with a history of hypertension and hyperlipidemia who presents for follow up.” Even at the 2006 work RVUs for these codes, 27130 and 27447 are reimbursed at only a fraction over performing multiple 99213’s and 27236 is provided at a significant loss (possibly explaining some of the crisis in access to trauma care we are experiencing).

#### **AAOS Recommendation Regarding Codes 27130, 27136 and 27447:**

The AAOS recognizes that CMS may not have fully understood how the AAOS developed its recommendations, just as we do not fully understand how CMS developed its proposed work RVUs for these codes. The AAOS hopes that this comment letter has clarified for CMS the AAOS and RUC recommendations and rationale that support the current work RVUs. The AAOS also hopes that CMS recognizes the problems that exist in how it selected and used comparison codes to justify its recommendations and that there are better comparison codes that justify the current work RVUs for 27130, 27236 and 27447 (as shown in Table 1 above), if this approach is going to be used as a basis for determining work RVUs for these codes.

The AAOS and the entire orthopaedic community strongly urge CMS to reconsider its position and accept the RUC’s recommendations regarding these codes, which, as we have explained above, are based on well-established protocols that the RUC, specialty societies and CMS carefully and painstakingly crafted since the RBRVS’ inception.

#### **Additional Fracture Codes**

The AAOS agrees with CMS’ recommendation to maintain the current work RVUs for 58 fracture procedures pending clarification by the CPT Editorial Panel. The AAOS is working

with the CPT Editorial Panel to resolve any ambiguities in the CPT descriptors for the identified fracture procedures.

**DISCUSSION OF COMMENTS – GYNECOLOGY, UROLOGY, PAIN MEDICINE,  
AND NEUROSURGERY**

**Spine Surgery**

<b>CPT CODE</b>	<b>DESCRIPTOR</b>	<b>Current wRVU</b>	<b>RUC Recommended wRVU</b>	<b>CMS Proposed wRVU</b>
22520	Percutaneous vertebroplasty, one vertebral body, unilateral or bilateral injection; thoracic	8.89	8.90	8.90
22554	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); cervical below C2	18.59	16.40	16.40
22612	Arthrodesis, posterior or posterolateral technique, single level; lumbar (with or without lateral transverse technique)	20.97	22.00	20.97
22840	Posterior non-segmental instrumentation (eg, Harrington rod technique, pedicle fixation across one interspace, atlantoaxial transarticular screw fixation, sublaminar wiring at C1, facet screw fixation)	12.52	12.52	12.52
63047	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root(s), (eg, spinal or lateral recess stenosis)), single vertebral segment; lumbar	14.59	14.08	14.08
63048	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root(s), (eg, spinal or lateral recess stenosis)), single vertebral segment; each additional segment, cervical, thoracic, or lumbar (List separately in addition to code for primary procedure)	3.26	3.55	3.26
63075	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; cervical, single interspace	19.38	18.58	18.58

The AAOS is pleased that CMS chose to accept the RUC's recommended values for codes 22520, 22554, 22840, 63047 and 63075. However, the AAOS believes that CMS misinterpreted the data presented for 22612 and 63048.

The AAOS recommends that CMS reconsider the RUC work RVU recommendation for 22612 and 63048. The work RVU recommendation for 22612 is based on the 25<sup>th</sup> percentile, and not the median, of the survey results. As such, the recommendation for 22612 reflects a compromise position. Furthermore, the recommendation for 22612 was based on a thorough review of over 100 survey responses (208 responses total), which is well above the RUC's requirement to validate the results of a survey. Finally, the AAOS notes the RUC recommended value of 22.00 maintains an appropriate rank order with 22595 and other equally comparable codes from the family of fusion codes.

As part of the rationale for rejecting this value, CMS states that the workgroup's recommendation was based largely on a typographical error that listed the primary reference code, 22595, as having a work value of 23.36. The AAOS recognizes there was a typographical error on the RUC Summary of Recommendation form, but does not agree that the workgroup based its decision on this fact. The AAOS believes the workgroup based its recommendation on the survey data and the building block methodology presented to the workgroup in the "Additional Rationale" section of the Summary of Recommendation form. The workgroup understood the survey respondents did not base their decisions on this typographical error, but rather compared the current work involved in a spinal fusion to the work involved in a spinal fusion five years ago. Therefore, the typographical error did not affect the way in which survey respondents derived the value for 22612.

The AAOS also believes that CMS misinterpreted the survey results for 63048. CMS states that no information was given that compares the respondents' estimates of complexity and intensity between 63048 and the reference code because the Summary of Recommendation form did not list a reference code. However, survey respondents did compare the complexity and intensity currently involved in the work of 63048 with the complexity and intensity involved in the work of 63048 five years ago. The AAOS notes this same methodology was used for the other spine codes, and the workgroup and CMS approved this same methodology with respect to the other five spine codes. The AAOS believes CMS' acceptance of the other spine recommendations is proof of the adequacy and sufficiency of the survey methodology used for the spine codes. Given CMS' approval of the methodology, the AAOS believes it is appropriate to accept the RUC recommendations for 22612 and 63048. Finally, the AAOS notes the RUC recommendation for 63048 represents a compromise position because it approximates the 25<sup>th</sup> percentile value of the survey.

## **DISCUSSION OF COMMENTS – EVALUATION AND MANAGEMENT SERVICES**

The AAOS has serious concerns about the dramatic increase in several evaluation and management (E/M) codes. We do not believe that compelling evidence was presented to increase the work RVUs of these codes by more than 37 percent. Furthermore, this significant increase creates a host of rank order anomalies that will spawn an avalanche of requests for

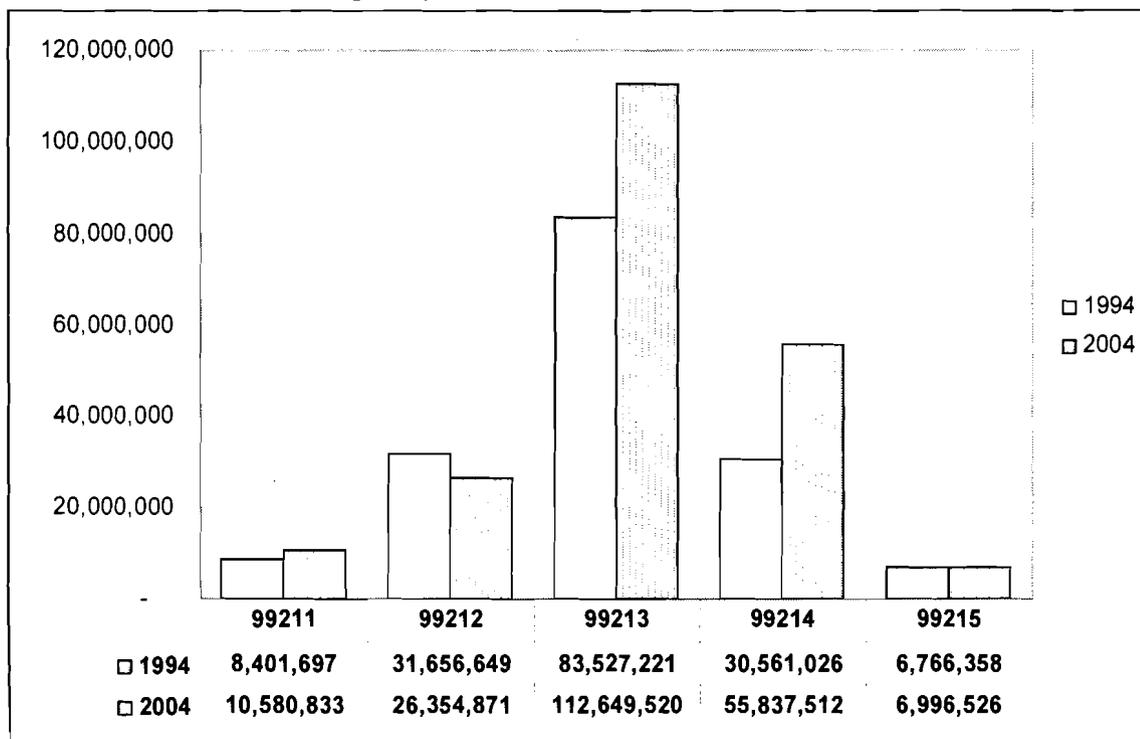
increases during the next five years and in the next five-year review. We urge CMS to correct these anomalies before the *Final Rule* is published in November.

**Compelling Evidence Standard Not Met/Standard RUC Procedure Not Followed:**

CMS acknowledges that the RUC’s recommendations were based on the principle that incorrect assumptions were made when these E/M codes were originally valued. While this may be true, these false assumptions were corrected in the first Five-Year Review and 35 E/M codes, including 99213, were increased by upwards of 16 percent to compensate for these issues. It is not equitable to allow these codes to be brought forward again for revaluation based upon incorrect assumptions that were already corrected over 10 years ago and for which a second Five-Year Review was undertaken with no comment from the specialties that primarily use these codes. We also find it questionable that apparently only high volume E/M codes are riddled with these faulty assumptions while low volume E/M codes are not.

Most importantly, the AAOS strongly believes physicians have already been compensated for the increased work of providing E/M services by billing longer and more intense office visits. For example, since 1994, despite an increased number of total beneficiaries, the number of 99212 office visits has decreased from 31,656,490 to 26,354,871. At the same time, the number of 99213 office visits has increased from 83,527,221 to 112,649,520 and the number of 99214 office visits has increased from 30,561,026 to 55,837,512. These changes have cost the Medicare program more than \$3.28 billion. In total, there was an 85 percent increase in allowed charges for 99213 alone between 1997 and 2004. In 2003, E/M services accounted for more than 30 percent of the growth in Medicare physician spending.

1994 and 2004 Frequency for CPT 99211-99215, Office Visits, Establish Patients



Despite this clear and unprecedented shift to longer and more intense office visits, a National Ambulatory Medical Care Survey (NAMCS) study shows that the duration of the average office visit has decreased, not increased.

<b>Year</b>	<b>NAMCS Mean Visit Duration (minutes)</b>
1997	18.8
1998	18.3
1999	19.3
2000	18.9
2001	18.6
2002	18.4

The AAOS agrees the demographics of Medicare patients are changing and the average beneficiary is older and has more co-morbidities; however, this trend is not unique to E/M services. When these same patients have surgery, their increased co-morbidities and risk factors do not disappear. The operations are more difficult and require increasingly more intensive work. For example, performing abdominal surgery on a 75-year-old, obese beneficiary with diabetes and high blood pressure is not the same as performing surgery on a 65-year-old patient in generally good physical condition with no chronic conditions. In short, the characteristics that justify a 37 percent increase to an E/M code can be used to argue for a 37 percent increase to many procedural codes on the Medicare Fee Schedule. We do not believe the Medicare program can sustain such an increase, no matter how justified, and do not believe it is equitable to grant an increase to some specialties based on factors that apply to all specialties when that increase cannot be applied across-the-board. While the E/M increases were correctly applied to global surgical services, in many instances the actual pre-, intra-, and immediate post-services are also made more difficult by a patient's advanced age or co-morbidity, yet there was no consideration for these time periods.

Finally, while CMS praises the RUC for coming to agreement on its recommendations for these codes, we note that standard RUC procedure was not followed and the RUC's rationale is still unclear today.

The AAOS fears that the true cost of the E/M increases will be much more than CMS' \$4 billion estimate as more and more physicians bill code 99213 instead of a lower level code. We note that the difference in these codes is often the number of organ systems examined, something that is completely under the physician's control. We already are concerned about the unexplainable increase in billing of code 99213 instead of lower level codes and fear this trend will increase exponentially with the 37 percent increase in work RVUs.

**Rank Order Anomalies:**

The AAOS is also concerned that CMS has recommended a 37 percent increase to code 99213 without any discussion of how this dramatic change will affect other similar codes. While we are concerned that the increase to code 99213 will lead to increases for codes from other areas, we are specifically troubled by the disproportionate distribution of values within the E/M family. If CMS determines it will stand behind its decision to increase the E/M codes, we ask

the agency to consider spreading out the increases more proportionately between codes in a family. For example, we suggest that instead of increasing code 99213 by 37 percent, CMS instead increase codes 99211, 99212, 99213, 99214 and 99215 in a more proportionate manner. For example, the difference between codes 99212 and 99213 was .22 work RVUs, or about 30 percent. With the increases proposed to code 99213, the difference is now .47 work RVUs, or more than 50 percent. We believe a more proportionate progression within families is a more accurate, consistent reflection of everyday practice and will reduce the incentive to upcode. We do not feel that any of the reasons used to justify the increases to the upper level E/M codes are inapplicable to the lower level E/M codes, and we agree with CMS that codes should not return to the Five-Year Review repeatedly. **To be clear, the AAOS suggests that if CMS is not willing to reduce the overall E/M increases, then the agency should, at the very least, spread those increases more proportionately over the E/M codes by increasing the values of lower E/M codes while decreasing the proposed increases to codes 99213 and 99214 while keeping the budget impact the same.**

**Application of Increased E/M Work RVUs to 10- and 90-Day Global Codes:**

The AAOS fully agrees with the RUC's recommendation and CMS' proposal to apply the increased E/M work RVUs to E/M services included in the 10- and 90-day global period codes. These E/M services are the same as those that are performed distinctly and they have been recognized as such by both the RUC and CMS. However, it appears that CMS may have inadvertently applied a discounted or different work RVU to the 10- and 90- day global codes. **The AAOS urges CMS to correct this calculation oversight in the Final Rule.**

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The AAOS appreciates the opportunity to comment on the proposed work RVUs for the current Five-Year Review. The AAOS believes it is important for CMS to incorporate comments from medical specialty societies, like the AAOS, and from other groups within the medical community, such as the AMA/Specialty Society RVS Update Committee (RUC) into its decision-making process. These organizations provide CMS valuable information and data that ultimately improves the Medicare Physician Fee Schedule.

Sincerely,



Richard F. Kyle, MD  
President  
American Association of Orthopaedic Surgeons

## APPENDIX A

### Excerpt from August 2005 RUC Workgroup Recommendations

#### AMA/SPECIALTY SOCIETY RVS UPDATE COMMITTEE RBRVS FIVE - YEAR REVIEW

#### WORKGROUP 2 – ORTHOPAEDIC SURGERY

#### RUC RECOMMENDATIONS

##### Total Joint and Hip Fracture (27130, 27447, 27236)

CMS submitted these three codes because they had never been reviewed by the RUC. The AAOS and AAHKS attempted to conduct a standard RUC survey using what the specialties believed to be a typical patient vignette. The specialties received more comments than survey responses about the entire survey process (especially the survey itself). Many respondents stated the typical patient was anything but typical. The specialties did not have enough willing participants or receive enough usable responses to run a data analysis. The specialties believe that minimal bad data is useless to provide and should not be considered. As a result of this failed survey process, the specialties looked to alternative data sources. The workgroup had requested to examine the survey results but the specialties refused to do so since they were considered to be inaccurate.

The AAOS and AAHKS convened an expert panel to develop a RVW recommendation for the three codes using data from the National Surgical Quality Improvement Program (NSQIP); data from the CMS DRG database; existing information from the RUC database; and IWPUT analysis. Based on the building block analysis the specialties recommended no change in the current work RVU.

The workgroup was concerned that a survey was conducted but the results not shared with the workgroup. In addition the use of the NSQIP data did not conform to the RUC procedures which requested that the specialty demonstrate that the NSQIP data is representative. Also, the DRG data was used as well but only minimal description of the database was provided.

The workgroup then attempted to calculate a new value based on the reduction in the number of post-operative visits as determined by the specialties expert panel. However, since these codes are all based on Harvard data there was a disconnect between the number of post-operative visits assigned by CMS and the post-operative time developed by Harvard. For example, for code 27130 Harvard post operative hospital time is only 91 minutes and that is to reflect the eight 99231 visits. Using current RUC standards, these eight visits would equal 152 minutes. Therefore, the workgroup felt it would be unfair to reduce the Harvard derived value by the current RUC standards. An alternative would be to convert the Harvard post operative time to the current 152 minute standard and then reduce the RVUs by the change in the number of visits, but the workgroup was not sure of this approach was valid. The workgroup would like to bring this issue to the attention of the RUC for further examination since it may affect many codes that still have Harvard times in that there may be a disconnect between the Harvard times and the number and level of postoperative visits.

Given the lack of survey data and uncertainty on how to adjust the exiting value based on Harvard times and visits, the workgroup strongly considered assigning a no consensus action key, thus in effect deferring to CMS, however, the workgroup's final decision is to maintain the current RVUs. The specialty society was encouraged by the workgroup and by the CMS representative to conduct a standard RUC survey in time for the September RUC meeting as it was anticipated that these codes would be extracted.

## APPENDIX B

### AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

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CPT Code:27130	Global Period: 090	<b>Recommended Work Relative Value</b> Specialty Society RVU: <b>20.09</b> RUC RVU:
CPT Descriptor: Arthroplasty, acetabular and proximal femoral prosthetic replacement (total hip arthroplasty), with or without autograft or allograft		

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#### CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 67-year-old obese female (BMI > 30) with osteoarthritis of the lumbar spine and chronic low back pain presents with severe left hip pain affecting activities of daily living. She is hypertensive and a non-insulin dependent diabetic. At operation, she undergoes a conventional total left hip arthroplasty (THA).

Percentage of Survey Respondents who found the Vignette to be Typical: 92%

Is conscious sedation inherent to this procedure? No Percent of survey respondents who stated it is typical? 0%

Description of Pre-Service Work: Obtaining and reviewing pre-procedural imaging, pathology, and laboratory studies; with special attention to review of radiographs and scaled radiographs if necessary, which were used for sizing and ordering of special implants or allografts. Review of preoperative laboratory test; consulting with the referring physician, if necessary, and other health care professionals; and communicating with the patient (and/or patient's family) to explain operative risks and benefits and to obtain informed consent. Templating of the case which includes leg length measurement, assessment of the center of rotation of the hip, the proper height for the femoral neck cut as well as the proper sizing of the components. Preoperative work also includes scrubbing; arranging for intraoperative cell saver; positioning the patient, assessing leg length before the patient is placed in the lateral position; marking the patient for the planned incision; supervising prepping and draping the patient, as well as ensuring that the surgical instruments and implants that are necessary are present and available in the operative suite.

Description of Intra-Service Work: After incising the skin and the fascia the glutei were taken off the femur one at a time. Once this was completed, leg length assessment is done by placing markers in the pelvis and in the femur as well as checking through the drapes. After assessing leg length and doing a capsulectomy, the femoral head is then dislocated and femoral neck osteotomy is performed at the proper height. This is then followed by finding the femoral canal and then doing sequential raspings with the broaches until the correct rotational and axial stability is achieved. The calcar planer is then utilized to plane down the neck.

The appropriate dissection and releases were then performed to expose the socket. The appropriate retractors are then placed anteriorly as well as posteriorly, all excess capsule and redundant labrum is then removed utilizing the knife. All osteophytes are then carefully removed utilizing each of the osteotomes starting with a half inch all the way up to the one inch osteotomes. After removal of the osteophytes, the base of the acetabulum is then found by utilizing a small reamer. Once the reamer is carefully placed all the way down to the medial wall of the acetabulum, sequential reamers in 1 mm increments are utilized all the way up to correct size. This is determined based on the axial and offcenter loading of the reamers. Once this is completed, trial implants are seated and stability as well as leg length measurement are then done. Once the proper sizing and stability issues are determined, the socket is seated. The drill is then utilized and placed over the holes for the socket to insert screws. Usually 2 are depth gaged and then inserted. The central hole sealer is then placed in situ and the liner is then placed and tapped after cleaning all soft tissue.

Once this was completed, trial reduction with the rasp is done again to check stability and range of motion for impingement or dislocation. Redundant capsule is then removed from the posterior aspect. The implant is then opened

up and checked and then its placed and tapped in situ. Once this is completed, copious irrigation is done. Leg length is then assessed again with trial necks. The real head/neck is then placed and tapped in situ. The hip is then reduced. An x-ray is taken to verify the position of the components. Sponge and needle counts are then done and then a deep drain is placed. The closure is then performed in multilayers being careful to reattach the muscles to the proper structures.

Description of Post-Service Work: Post-service begins after skin closure in the operating room and includes application of sterile dressing and abduction splint. Post-operative work also includes: monitoring patient stabilization in the recovery room; communication with the family and other health care professionals (including written and oral reports and orders); and all hospital visits and services performed by the surgeon, including monitoring lab reports; care and removal of drains and dressings; supervision of physical or occupational therapy; ordering and reviewing postoperative X-rays; and antibiotic, anticoagulant and pain medication management. Arrangements are made with the case manager and the patient's family for discharge to an inpatient rehabilitation facility or a skilled nursing facility or home. Discharge day management includes the surgeon's final examination of the patient, instructions for continuing care including home health care, and preparation of discharge records. Additionally, all post-discharge office visits for this procedure for 90 days after the day of the operation are considered part of the postoperative work for this procedure; including removal of sutures; evaluation of periodic imaging and laboratory reports, if needed; review of anticoagulation laboratory values and appropriate medication adjustment, and antibiotic and pain medication adjustments. Great attention to the possibility of postoperative hip dislocation must be given with this procedure by careful supervision of postoperative in-hospital care as well as the direction of physical therapy of postoperative exercise and recovery of activity.

#### SURVEY DATA

<b>RUC Meeting Date (mm/yyyy)</b>		09/2005				
<b>Presenter(s):</b>		Dale Blasier, MD, American Academy of Orthopaedic Surgeons Carlos Lavernia, MD, American Association of Hip and Knee Surgeons Brian Parsley, MD, American Association of Hip and Knee Surgeons Frank Voss, MD, American Association of Hip and Knee Surgeons				
<b>Specialty(s):</b>		Orthopaedic Surgery				
<b>CPT Code:</b>		27130				
<b>Sample Size: 500</b>		<b>Resp n: 42</b>		<b>Response: 8%</b>		
<b>Sample Type: Random</b>						
		<b>Low</b>	<b>25<sup>th</sup> pctl</b>	<b>Median</b>	<b>75<sup>th</sup> pctl</b>	<b>High</b>
<b>RVW:</b>		19.00	20.00	<b>20.50</b>	21.95	24.59
<b>Pre-Service Evaluation Time:</b>				<b>60.0</b>		
<b>Pre-Service Positioning Time:</b>				<b>20.0</b>		
<b>Pre-Service Scrub, Dress, Wait Time:</b>				<b>15.0</b>		
<b>Intra-Service Time:</b>		70.00	90.00	<b>110.00</b>	120.00	180.00
<b>Post-Service</b>		<b>Total Min** CPT code / # of visits</b>				
<b>Immed. Post-time:</b>		<b><u>30.00</u></b>				
<b>Critical Care time/visit(s):</b>		<b><u>0.0</u></b> 99291x <b>0.0</b> 99292x <b>0.0</b>				
<b>Other Hospital time/visit(s):</b>		<b><u>87.0</u></b> 99231x <b>3.0</b> 99232x <b>1.0</b> 99233x <b>0.0</b>				
<b>Discharge Day Mgmt:</b>		<b><u>36.0</u></b> 99238x <b>1.00</b> 99239x <b>0.00</b>				
<b>Office time/visit(s):</b>		<b><u>84.0</u></b> 99211x <b>0.0</b> 12x <b>1.0</b> 13x <b>3.0</b> 14x <b>0.0</b> 15x <b>0.0</b>				

\*\*Physician standard total minutes per E/M visit: 99291 (63); 99292 (32); 99233 (41); 99232 (30); 99231 (19); 99238 (36); 99215 (59); 99214 (38); 99213 (23); 99212 (15); 99211 (7).

**KEY REFERENCE SERVICE:**

<u>Key CPT Code</u>	<u>Global</u>	<u>Work RVU</u>
23472	090	21.07

*CPT Descriptor Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder))*

**KEY MPC COMPARISON CODES:**

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

<u>MPC CPT Code 1</u>	<u>Global</u>	<u>Work RVU</u>
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CPT Descriptor

**RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):**

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. **Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.**

<b>TIME ESTIMATES (Median)</b>	Key Reference	
	CPT Code: 27130	CPT Code: 23472
Median Pre-Service Time	95.00	60.00
Median Intra-Service Time	110.00	165.00
Median Immediate Post-service Time	30.00	30.00
Median Critical Care Time	0.0	0.00
Median Other Hospital Visit Time	87.0	68.00
Median Discharge Day Management Time	36.0	36.00
Median Office Visit Time	84.0	84.00
<b>Median Total Time</b>	<b>442.00</b>	<b>443.00</b>
Other time if appropriate		

**INTENSITY/COMPLEXITY MEASURES (Mean)**

**Mental Effort and Judgment (Mean)**

The number of possible diagnosis and/or the number of management options that must be considered	3.21	3.00
The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed	3.36	2.93
Urgency of medical decision making	2.43	2.29

**Technical Skill/Physical Effort (Mean)**

Technical skill required	3.86	3.86
Physical effort required	3.79	3.57
<b>Psychological Stress (Mean)</b>		
The risk of significant complications, morbidity and/or mortality	3.79	3.50
Outcome depends on the skill and judgment of physician	3.93	2.93
Estimated risk of malpractice suit with poor outcome	4.14	2.29

**INTENSITY/COMPLEXITY MEASURES**

**CPT Code**      **Reference Service 1**

**Time Segments (Mean)**

Pre-Service intensity/complexity	3.50	3.21
Intra-Service intensity/complexity	3.71	3.50
Post-Service intensity/complexity	3.14	2.93

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## COMPELLING EVIDENCE RATIONALE (Required to be Completed)

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWP/UT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

The AAOS and AAHKS convened an expert panel to develop a RVW recommendation for 27130 using survey data, National Surgical Quality Improvement Program (NSQIP) data, and CMS DRG data. The expert panel's rationale is discussed in detail below.

### Pre-Service Time

The expert panel reviewed the pre-service time data from the RUC survey and agreed the times were appropriate. The expert panel noted that 60 minutes of evaluation time was higher as compared to other surgical procedures, but it was still within the range of evaluation time for 90-day global procedures. The expert panel believes the increased evaluation time for this procedure can be accounted for by the templating that is typically performed as part of the pre-service work. The 20 minutes of positioning time and 15 minutes of scrub, dress, wait time are typical for 90-day global procedures – especially with respect to orthopaedic procedures.

**The expert panel recommends 95 minutes of total pre-service time for 27130, and specifically recommends 60 minutes evaluation, 20 minutes positioning, and 15 minutes scrub, dress, and wait time.**

### Intra-Service Time

The expert panel reviewed the intra-service time data from the RUC survey and believed the median time of 110 minutes did not fully capture all of the intra-service time required for this procedure. As such, the expert panel looked to other objective sources of data in order to develop appropriate intra-service time recommendations.

The National Surgical Quality Improvement Project (NSQIP) is a national, validated, outcomes-based, risk adjusted program that measures aspects of surgical care. NSQIP intra-operative data indicate a median intra-operative time of 135 minutes for 27130, based on 5,950 patient records.

The expert panel also considered the CMS DRG database, which includes actual operating room time for 27130, compiled from automated hospital tracking software. This data was used by CMS in early 2005 to update the DRG for total joint arthroplasty under Medicare's Inpatient Prospective Payment System. The mean total operating room time for 3,048 total hip arthroplasty cases (27130) was 198.7 minutes. To estimate the skin-to-skin time, we subtracted the positioning time (20 minutes), scrub/dress/wait time (15 minutes), and a portion of the immediate post-time through discharge from recovery (20 minutes) from the total OR time (198.7 minutes) to arrive at an estimate of 143.7 minutes ( $198.7 - 55 = 143.7$ ).

**The expert panel recommends 135 minutes of intra-operative time for 27130 and bases this recommendation on its review of the data from these two large databases.** The expert panel bases its recommendation on 8,998 actual cases from independent, national, hospital databases. The expert panel believes the voluminous intra-service data from the NSQIP and DRG database is considerably more reliable than the estimates of intra-service time collected from the RUC survey data.

### **Post-Service Time**

The expert panel reviewed the immediate post-service time data from the RUC survey and agreed 30 minutes of immediate post-service time was appropriate. The expert panel noted the immediate post-service time for the reference code 23472 *Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder))*, is also 30 minutes. 30 minutes falls within the range of immediate post-service time for 90-day global procedures – especially with respect to orthopaedic procedures.

**The expert panel recommends 30 minutes post-service time for 27130.**

### **Hospital Visits**

The expert panel reviewed the post-operative hospital visit data from the RUC survey and believed survey respondents accurately identified the number and intensity of hospital visits required for this procedure. The expert panel validated the number of hospital visits indicated by survey respondents by comparing the survey results with two large databases. The expert panel noted that the survey results were consistent with the databases. The NSQIP data for 27130 indicates the total hospital length of stay (LOS) is 5 days. The NSQIP LOS data is based on 5,917 total hip arthroplasty cases. The CMS DRG database shows the mean hospital length of stay as 5.1 days. This data is based on 3,048 total hip arthroplasty cases.

**The expert panel recommends 5 hospital visits (99231x3, 992232x1, 99238x1) for 27130.** The expert panel bases its 5-day hospital length of stay recommendation on both RUC survey and actual data from 8,965 cases from independent, national hospital databases which confirmed the survey results. The expert panel agrees with survey respondents in the fact that one higher level hospital visit (99232) is appropriate because the initial hospital visit following surgery requires additional time and effort as compared to subsequent hospital visits. For example, the physician must address pain management, initiate DVT prophylaxis, and develop a PT regimen during this visit.

### **Office Visits**

The expert panel reviewed the post-operative office visit data from the RUC survey and agreed the number and intensity of office visits were appropriate. The expert panel noted this office visit pattern is identical to the reference code selected by survey respondents, 23472 *Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder))*, which is a RUC-surveyed code. Both procedures share similar patterns of post-operative care with respect to the number and intensity of office visits.

**The expert panel recommends 4 office visits (99213x3, 99212x1) for 27130.**

### **RVW**

The expert panel noted its pre-, intra-, and post-operative time recommendations reflect higher times than the existing Harvard data. The expert panel also noted the overall intensity measures were similar for 27130 and the most commonly selected reference code, 23472 *Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder))*. The post-operative office visits for 27130 and the reference code (23472) were identical.

The expert panel noted there was a difference in the number of hospital visits from the Harvard data as compared to the survey data; however, they believed it was inappropriate to make this comparison for several reasons. First, when the Harvard hospital time (91 minutes) is compared with the Harvard number of hospital visits (99231x8, 99238x1), it suggests either a lower intensity visit was used for the Harvard study

than is currently used by the RUC, or the number of visits were extrapolated from the total time. Second, it is unclear as to whether more than one hospital visit per day was reported under the Harvard study. If this was the case, it is inconsistent with current RUC and CPT standards which allow a physician to report only one visit per day. Because of these methodological differences, the expert panel believes the Harvard hospital visit data cannot be compared with RUC survey data. The expert panel believes the current RUC survey and NSQIP data accurately reflect the number and intensity of post-operative hospital visits and also believed there has been no decrease in the amount work required for post-operative hospital care.

The expert panel noted the survey median RVW of 20.50 was a slight increase from the current RVW of 20.09. The median survey RVW suggests that survey respondents believe the overall work involved for this procedure has not significantly changed. After consideration of the time, visit, and intensity factors, the expert panel agrees and recommends maintaining the current RVW of 20.09 for 27130.

**IWPUT**

The IWPUT calculations using the time and visit recommendations of the expert panel and the current RVW for 27130 is shown below.

<u>IWPUT for 27130</u>			RVW
		RVW:	20.09
	Data	RUC Std.	RVW
<b><u>Pre-service:</u></b>			
	<b>Time</b>	<b>Intensity</b>	<b>(=time x intensity)</b>
Pre-service eval & positioning	80	0.0224	1.34
Pre-service scrub, dress, wait	15	0.0081	0.16
<b>Pre-service total</b>			<b>1.51</b>
<b><u>Post-service:</u></b>			
	<b>Time</b>	<b>Intensity</b>	<b>(=time x intensity)</b>
Immediate post	30	0.0224	0.67
Subsequent visits:		<b>E/M RVW</b>	<b>(=n x RVW)</b>
ICU 99291		4.00	0.00
ICU 99292		2.00	0.00
NICU 99296		16.00	0.00
NICU 99297		8.00	0.00
99233		1.51	0.00
99232	1	1.06	1.06
99231	3	0.64	1.92
Discharge 99238	1	1.28	1.28
Discharge 99239		1.75	0.00
99215		1.73	0.00
99214		1.08	0.00
99213	3	0.65	1.95
99212	1	0.43	0.00
99211		0.17	0.00
<b>Post-service total</b>			<b>7.35</b>
	<b>Time</b>	<b>IWPUT</b>	<b>INTRA-RVW</b>
<b><u>Intra-service:</u></b>	135	0.080	11.16

The AAOS and AAHKS believe it is appropriate to maintain the current RVW of 20.09 for 27130. Additionally, the AAOS and AAHKS recommend the time and visit data presented replace the Harvard data in the CMS and RUC database.

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## Services Reported with Multiple CPT Codes

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

- The surveyed code is an add-on code or a base code expected to be reported with an add-on code.  
 Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.
- Multiple codes allow flexibility to describe exactly what components the procedure included.  
 Multiple codes are used to maintain consistency with similar codes.  
 Historical precedents.  
 Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario. N/A

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### Five-Year Review Specific Questions:

Please indicate the number of survey respondent percentages responding to each of the following questions (for example 0.05 = 5%):

Has the work of performing this service changed in the past 5 years? Yes 51% No 49%

- A. This service represents new technology that has become more familiar (i.e., less work):  
I agree      I do not agree    100%
- B. Patients requiring this service are now:  
more complex (more work) 100%    less complex (less work)      no change
- C. The usual site-of-service has changed:  
from outpatient to inpatient      from inpatient to outpatient      no change 100%

**Addendum to RUC Summary of Recommendation Form  
Five-Year Review of Physician Work  
Resulting Practice Expense Direct Input Modifications**

CPT Code: 27130

**Current Time Data** (2005 Medicare Physician Payment Schedule – Utilize Report Provided by AMA Staff with Survey Packet)

<b>Complete if Code is priced in the non-facility:</b>			
Physician Intra-Service Time:			
Clinical Staff #1	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time
Clinical Staff #2	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time
<b>Complete if the global period is 010, or 090</b>			
Discharge Day (none, 1/2, or full)		99238: 1.0	
Number and Level of Office Visits:		99211:	
		99212: 4.0	
		99213:	
		99214:	
		99215:	

**Revised Time Data** (Base physician time data on new survey data and recommendations; use current staff type and ratios from above to compute new clinical staff intra assist physician time. The change in staff intra-assist physician time is the difference between the current and revised intra-assist physician time)

<b>Complete if Code is priced in the non-facility:</b>			
Physician Intra-Service Time:			
Clinical Staff #1	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time <b>Change: In Time</b>
Clinical Staff #2	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time <b>Change: In Time</b>
<b>Complete if the global period is 010, or 090</b>			
Discharge Day (none, 1/2, or full)		99238: 1.0	
Number and Level of Office Visits:		99211:	
		99212: 1.0	
		99213: 3.0	
		99214:	
		99215:	

## APPENDIX C

### AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

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CPT Code: 27236

Global Period: 090

**Recommended Work Relative Value**

Specialty Society RVU: **15.58**

RUC RVU:

CPT Descriptor: Open treatment of femoral fracture, proximal end, neck, internal fixation or prosthetic replacement)

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#### CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 75-year-old obese female (BMI > 30) with mild dementia, severe osteoporosis, heart disease, and non-insulin dependent diabetes falls and sustains a displaced femoral neck fracture. At operation, she undergoes a cemented, bipolar prosthetic replacement.

Percentage of Survey Respondents who found the Vignette to be Typical: 87%

Is conscious sedation inherent to this procedure? No Percent of survey respondents who stated it is typical? 0%

Description of Pre-Service Work: Obtaining and reviewing previous medical records, review of chest x-ray, EKG, and pre-operative laboratory work-up. Consultation with the patient's internist, the anesthesiologist, and/or other health professionals (e.g., cardiologist) regarding any pre-operative testing that is required in order to clear the patient for surgery. Communicating with the patient and the patient's family to explain the operative risks and benefits and to obtain informed consent, emphasizing that there is a 50% mortality at 1 year following hip fracture in octogenarians. Review of radiographs, which are used for sizing and ordering of implants. Preoperative work also includes scrubbing; positioning the patient; marking the patient for the planned incision; supervising prepping and draping the patient, as well as ensuring that the surgical instruments and implants that are necessary are present and available in the operative suite.

Description of Intra-Service Work: The skin incision is made down through subcutaneous tissue, followed by a fascial incision and splitting of the gluteus maximus. Dissection is made to identify the greater trochanter, vastus lateralis. The sciatic nerve is at risk. Short external rotators and capsule from posterior intertrochanteric insertions are incised; rotators are tagged and pulled over the sciatic nerve. The leg length is measured. The posterior capsule is then incised and tagged for future repair. The surgeon then attempts to displace the proximal femur anteriorly, thus exposing the femoral head, which remains in the acetabulum. A cut is made along the femoral neck based on pre-operative templating. The femoral head is then removed with a corkscrew. The acetabular socket is exposed and inspected for any signs of damage to the articular cartilage. If there is none, the acetabulum is sized using a trial head. The proximal femur is then delivered up into the wound with flexion and internal rotation of the hip. A box-cutting chisel and awl are used to create a starting hole for the femoral broaches. Beginning with the smallest size broach, the femoral canal is broached to the appropriate size. A trial reduction is performed by attaching a trial femoral head and neck to the broach, and reducing the hip under direct vision. The hip is taken through a range of motion to assess the stability of the hip in flexion/internal rotation and extension/external rotation. Leg lengths are assessed. If the surgeon is not comfortable with the leg length and/or stability, additional head/neck length combinations are used to achieve stability. An intra-operative x-ray is obtained to determine the positioning of the implants and the leg lengths. The trial hip is then dislocated using a bone hook, and the trial implants are removed. A femoral canal sound is used to determine the size of the femoral canal, and the appropriate sized cement restrictor and distal centralizer are selected. The cement restrictor is impacted into the femoral canal. The femoral canal is then prepared for cementing using pulsatile lavage, a brush, and epinephrine-soaked gauze sponges. Methylmethacrylate cement is then vacuum-mixed. While the cement is curing, it is transferred to a cement gun. When the cement becomes doughy, it is inserted retrograde into the femoral canal. Once the canal is full of cement, the cement column is pressurized using a proximal cement pressurizing. The appropriate sized femoral implant is then inserted into the femoral canal in the appropriate amount of anteversion. Excess cement is removed, and pressure is held on the implant until the cement completely

hardens (12-15 minutes). Once the cement has hardened, excess cement is again removed with a curved osteotome. A trial reduction is again performed with various head/neck combinations until the surgeon is satisfied with the stability of the hip and leg lengths. The trial head/neck are then removed and replaced with the final implant. The hip is reduced under direct vision, and again taken through a range of motion to determine the final stability and leg length. The posterior capsule and the short external rotators are reattached through drill holes in the greater trochanter. The tensor fascia and gluteus maximus fascia are repaired. The subcutaneous tissue is closed; then the skin is closed.

Description of Post-Service Work: Post-service begins after skin closure in the operating room and includes application of sterile dressing and abduction splint. Post-operative work also includes: monitoring patient stabilization in the recovery room; communication with the family and other health care professionals (including written and oral reports and orders); and all hospital visits and services performed by the surgeon, including monitoring lab reports; care and removal of drains and dressings; supervision of physical or occupational therapy; ordering and reviewing postoperative X-rays; and antibiotic, anticoagulant and pain medication management. Arrangements are made with the case manager and the patient's family for discharge to an inpatient rehabilitation facility or a skilled nursing facility. Discharge day management includes the surgeon's final examination of the patient, instructions for continuing care including home health care, and preparation of discharge records. Additionally, all post-discharge office visits for this procedure for 90 days after the day of the operation are considered part of the postoperative work for this procedure; including removal of sutures; evaluation of periodic imaging and laboratory reports, if needed; review of anticoagulation laboratory values and appropriate medication adjustment, and antibiotic and pain medication adjustments. Great attention to the possibility of postoperative hip dislocation must be given with this procedure by careful supervision of postoperative in-hospital care as well as the direction of physical therapy of postoperative exercise and recovery of activity.

#### SURVEY DATA

<b>RUC Meeting Date (mm/yyyy)</b>		09/2005			
<b>Presenter(s):</b>	Dale Blasier, MD, American Academy of Orthopaedic Surgeons Carlos Lavernia, MD, American Association of Hip and Knee Surgeons Brian Parsley, MD, American Association of Hip and Knee Surgeons Frank Voss, MD, American Association of Hip and Knee Surgeons				
<b>Specialty(s):</b>	Orthopaedic Surgery				
<b>CPT Code:</b>	27236				
<b>Sample Size:</b> 500	<b>Resp n:</b> 42	<b>Response:</b> 8%			
<b>Sample Type:</b> Random					
	<b>Low</b>	<b>25<sup>th</sup> pctl</b>	<b>Median</b>	<b>75th pctl</b>	<b>High</b>
<b>RVW:</b>	15.00	17.00	<b>19.17</b>	21.13	45.00
<b>Pre-Service Evaluation Time:</b>			<b>60.0</b>		
<b>Pre-Service Positioning Time:</b>			<b>15.0</b>		
<b>Pre-Service Scrub, Dress, Wait Time:</b>			<b>16.0</b>		
<b>Intra-Service Time:</b>	60.00	98.00	<b>120.00</b>	130.00	210.00
<b>Post-Service</b>	<b>Total Min**</b>	<b>CPT code / # of visits</b>			
<b>Immed. Post-time:</b>	<b>30.00</b>				
<b>Critical Care time/visit(s):</b>	<b>0.0</b>	99291x 0.0	99292x 0.0		
<b>Other Hospital time/visit(s):</b>	<b>79.0</b>	99231x 1.0	99232x 2.0	99233x 0.0	
<b>Discharge Day Mgmt:</b>	<b>36.0</b>	99238x 1.00	99239x 0.00		
<b>Office time/visit(s):</b>	<b>84.0</b>	99211x 0.0	12x 1.0	13x 3.0	14x 0.0 15x 0.0

\*\*Physician standard total minutes per E/M visit: 99291 (63); 99292 (32); 99233 (41); 99232 (30); 99231 (19); 99238 (36); 99215 (59); 99214 (38); 99213 (23); 99212 (15); 99211 (7).

**KEY REFERENCE SERVICE:**

<u>Key CPT Code</u>	<u>Global</u>	<u>Work RVU</u>
23472	090	21.07

*CPT Descriptor Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder))*

**KEY MPC COMPARISON CODES:**

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

<u>MPC CPT Code 1</u>	<u>Global</u>	<u>Work RVU</u>
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CPT Descriptor

**RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):**

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. **Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.**

**TIME ESTIMATES (Median)** Key Reference

	<b>CPT Code:</b> <b>27236</b>	<b>CPT Code:</b> <b>23472</b>
--	----------------------------------	----------------------------------

Median Pre-Service Time	91.00	60.00
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Median Intra-Service Time	120.00	165.00
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Median Immediate Post-service Time	30.00	30.00
Median Critical Care Time	0.0	0.00
Median Other Hospital Visit Time	79.0	68.00
Median Discharge Day Management Time	36.0	36.00
Median Office Visit Time	84.0	84.00
<b>Median Total Time</b>	<b>440.00</b>	<b>443.00</b>
Other time if appropriate		

**INTENSITY/COMPLEXITY MEASURES (Mean)**

**Mental Effort and Judgment (Mean)**

The number of possible diagnosis and/or the number of management options that must be considered	3.35	3.28
The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed	3.80	3.28
Urgency of medical decision making	2.25	2.33

**Technical Skill/Physical Effort (Mean)**

Technical skill required	4.35	4.11
Physical effort required	4.00	3.72
<b>Psychological Stress (Mean)</b>		
The risk of significant complications, morbidity and/or mortality	4.05	3.78
Outcome depends on the skill and judgment of physician	4.30	3.94
Estimated risk of malpractice suit with poor outcome	4.45	3.89

**INTENSITY/COMPLEXITY MEASURES**

**CPT Code**      **Reference Service 1**

**Time Segments (Mean)**

Pre-Service intensity/complexity	3.83	3.44
Intra-Service intensity/complexity	3.89	3.83
Post-Service intensity/complexity	3.17	3.17

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## COMPELLING EVIDENCE RATIONALE (Required to be Completed)

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

The AAOS and AAHKS convened an expert panel to develop a RVW recommendation for 27236 using survey data, National Surgical Quality Improvement Program (NSQIP) data, and CMS DRG data. The expert panel's rationale is discussed in detail below.

### Pre-Service Time

The expert panel reviewed the pre-service time data from the RUC survey and agreed the times were appropriate. The expert panel noted that 60 minutes of evaluation time was higher as compared to other surgical procedures, but it was still within the range of evaluation time for 90-day global procedures. The expert panel believes the increased evaluation time for this procedure can be accounted for by the templating that is typically performed as part of the pre-service work. The 15 minutes of positioning time and 15 minutes of scrub, dress, wait time are typical for 90-day global procedures – especially with respect to orthopaedic procedures.

**The expert panel recommends 90 minutes of total pre-service time for 27236, and specifically recommends 60 minutes evaluation, 15 minutes positioning, and 15 minutes scrub, dress, and wait time.**

### Intra-Service Time

The expert panel reviewed the intra-service time data from the RUC survey and noted the median time of 120 minutes. The expert panel looked to other objective sources of data in order to compare the survey times and develop appropriate recommendations.

The National Surgical Quality Improvement Project (NSQIP) is a national, validated, outcomes-based, risk adjusted program that measures aspects of surgical care. NSQIP intra-operative data indicate a median intra-operative time of 90 minutes for 27236, based on 1,932 patient records.

**The expert panel recommends 90 minutes of intra-operative time for 27236 and bases this recommendation on its review of the data from the NSQIP database.** The expert panel bases its recommendation on 1,932 actual cases from independent, national, hospital databases. The expert panel believes the voluminous intra-service data from the NSQIP database is considerably more reliable than the estimates of intra-service time collected from the RUC survey data.

### Post-Service Time

The expert panel reviewed the immediate post-service time data from the RUC survey and agreed the 30 minutes indicated by survey respondents was appropriate. The expert panel noted the immediate post-service time for the reference code, 23472 Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder)), is also 30 minutes. 30 minutes falls within the range of immediate post-service time for 90-day global procedures – especially with respect to orthopaedic procedures.

**The expert panel recommends 30 minutes post-service time for 27236.**

### **Hospital Visits**

The expert panel reviewed the post-operative hospital visit data from the RUC survey and noted respondents believed 4 post-operative hospital visits (99231x1, 99232x2, and 99238x1) was typical. The expert panel compared the survey results with NSQIP data. The NSQIP data for 27236 indicates the total hospital length of stay (LOS) is 6 days. The NSQIP LOS data is based on 1,932 cases.

**The expert panel recommends 6 hospital visits (99231x3, 992232x2, 99238x1) for 27236.** The expert panel bases its 6-day hospital length of stay recommendation on NSQIP data from 1,932 cases.

### **Office Visits**

The expert panel reviewed the post-operative office visit data from the RUC survey and agreed the number and intensity of office visits were appropriate. The expert panel noted this office visit pattern is identical to the reference code selected by survey respondents, 23472 Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder)), which is a RUC-surveyed code. Both procedures share similar patterns of post-operative care with respect to the number and intensity of office visits.

**The expert panel recommends 4 office visits (99213x3, 99212x1) for 27236.**

### **RVW**

The expert panel noted its pre-, intra-, and post-operative time recommendations reflect higher times than the existing Harvard data. The expert panel also noted the overall intensity measures were similar for 27236 and the most commonly selected reference code, 23472 Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder)). The post-operative office visits for 27236 and the reference code (23472) were identical.

The expert panel noted there was a difference in the number of hospital visits from the Harvard data as compared to the survey data; however, they believed it was inappropriate to make this comparison for several reasons. First, when the Harvard hospital time (100 minutes) is compared with the Harvard number of hospital visits (99231x8, 99238x1), it suggests either a lower intensity visit was used for the Harvard study than is currently used by the RUC, or the number of visits were extrapolated from the total time. Second, it is unclear as to whether more than one visit per day was reported under the Harvard study. If this was the case, it is inconsistent with current RUC and CPT standards which allow a physician to report only one visit per day. Because of these methodological differences, the expert panel believes the Harvard hospital visit data cannot be compared with RUC survey data. The expert panel believes the NSQIP data accurately reflect the number and intensity of post-operative hospital visits, and also believes there has been no decrease in the amount work required for post-operative hospital care.

The expert panel noted the survey median RVW of 19.17 was a significant increase from the current RVW of 15.58. The median survey RVW suggests that survey respondents believe the overall work involved for this procedure has increased significantly. However, after consideration of the time, visit, and intensity factors, **the expert panel recommends maintaining the current RVW of 15.58 for 27236.**

**IWPUT**

The IWPUT calculations using the time and visit recommendations of the expert panel and the current RVW for 27236 is shown below.

**IWPUT for 27236**

		<b>RVW:</b>		<b>RVW</b>
		<b>RUC Std.</b>	<b>15.58</b>	
<b>Data</b>		<b>RUC Std.</b>	<b>RVW</b>	
<b><u>Pre-service:</u></b>		<b>Time</b>	<b>Intensity</b>	<b>(=time x intensity)</b>
Pre-service eval & positioning	75	0.0224		1.34
Pre-service scrub, dress, wait	15	0.0081		0.16
<b>Pre-service total</b>				<b>1.80</b>
<b><u>Post-service:</u></b>		<b>Time</b>	<b>Intensity</b>	<b>(=time x intensity)</b>
Immediate post	30	0.0224		0.67
Subsequent visits:		<b>E/M RVW</b>	<b>(=n x RVW)</b>	
ICU 99291		4.00		0.00
ICU 99292		2.00		0.00
NICU 99296		16.00		0.00
NICU 99297		8.00		0.00
99233		1.51		0.00
99232	2	1.06		1.06
99231	3	0.64		1.92
Discharge 99238	1	1.28		1.28
Discharge 99239		1.75		0.00
99215		1.73		0.00
99214		1.08		0.00
99213	3	0.65		1.95
99212	1	0.43		0.00
99211		0.17		0.00
<b>Post-service total</b>				<b>8.37</b>
<b><u>Intra-service:</u></b>		<b>Time</b>	<b>IWPUT</b>	<b>INTRA-RVW</b>
	90	<b>0.060</b>		5.41

The AAOS and AAHKS believe it is appropriate to maintain the current RVW of 15.58 for 27236. Additionally, the AAOS and AAHKS recommend the time and visit data presented replace the Harvard data in the CMS and RUC database.

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## Services Reported with Multiple CPT Codes

3. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

- The surveyed code is an add-on code or a base code expected to be reported with an add-on code.  
 Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.
- Multiple codes allow flexibility to describe exactly what components the procedure included.  
 Multiple codes are used to maintain consistency with similar codes.  
 Historical precedents.  
 Other reason (please explain)

4. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario. N/A

---

### Five-Year Review Specific Questions:

Please indicate the number of survey respondent percentages responding to each of the following questions (for example 0.05 = 5%):

Has the work of performing this service changed in the past 5 years? Yes 49% No 51%

D. This service represents new technology that has become more familiar (i.e., less work):  
I agree 0% I do not agree 100%

E. Patients requiring this service are now:  
more complex (more work) 89% less complex (less work) no change 11%

F. The usual site-of-service has changed:  
from outpatient to inpatient from inpatient to outpatient no change 100%

**Addendum to RUC Summary of Recommendation Form  
Five-Year Review of Physician Work  
Resulting Practice Expense Direct Input Modifications**

CPT Code: 27236

**Current Time Data** (2005 Medicare Physician Payment Schedule – Utilize Report Provided by AMA Staff with Survey Packet)

<b>Complete if Code is priced in the non-facility:</b>			
Physician Intra-Service Time:			
Clinical Staff #1	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time
Clinical Staff #2	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time
<b>Complete if the global period is 010, or 090</b>			
Discharge Day (none, 1/2, or full)		99238: 1.0	
Number and Level of Office Visits:		99211:	
		99212: 4.0	
		99213:	
		99214:	
		99215:	

**Revised Time Data** (Base physician time data on new survey data and recommendations; use current staff type and ratios from above to compute new clinical staff intra assist physician time. The change in staff intra-assist physician time is the difference between the current and revised intra-assist physician time)

<b>Complete if Code is priced in the non-facility:</b>			
Physician Intra-Service Time:			
Clinical Staff #1	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time <b>Change: In Time</b>
Clinical Staff #2	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time <b>Change: In Time</b>
<b>Complete if the global period is 010, or 090</b>			
Discharge Day (none, 1/2, or full)		99238: 1.0	
Number and Level of Office Visits:		99211:	
		99212: 1.0	
		99213: 3.0	
		99214:	
		99215:	

## APPENDIX D

### AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

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CPT Code:27447

Global Period: 090

**Recommended Work Relative Value**

Specialty Society RVU: **21.45**

RUC RVU:

CPT Descriptor: Arthroplasty, knee, condyle and plateau; medial AND lateral compartments with or without patella resurfacing (total knee arthroplasty)

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#### CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 69-year-old obese female (BMI > 30) with bilateral osteoarthritis of the knee joint presents with increased varus of the right knee affecting activities of daily living. She is hypertensive and a non-insulin dependent diabetic. At operation, she undergoes a conventional total right knee arthroplasty (TKA).

Percentage of Survey Respondents who found the Vignette to be Typical: 79%

Is conscious sedation inherent to this procedure? No Percent of survey respondents who stated it is typical? 0%

Description of Pre-Service Work: Obtaining and reviewing pre-procedural imaging, pathology, and laboratory studies; with special attention to review of radiographs and scaled radiographs if necessary, which were used for sizing and ordering of special implants or allografts. Review of preoperative laboratory test; consulting with the referring physician, if necessary, and other health care professionals; and communicating with the patient (and/or patient's family) to explain operative risks and benefits and to obtain informed consent. Preoperative work also includes templating of the case; scrubbing; arranging for intraoperative cell saver; positioning the patient; marking the patient for the planned incision; supervising prepping and draping the patient, as well as ensuring that the surgical instruments and implants that are necessary are present and available in the operative suite.

Description of Intra-Service Work: After the tourniquet is elevated following exsanguination, an acceptable surgical incision is utilized to expose the joint. After everting the patella, appropriate soft tissue elevation and removal is performed to expose and visualize the joint. Care and attention is utilized to evaluate the ligament balance of the knee and appropriate soft tissue releases are performed to restore balance to the joint. The remnant meniscal tissue and overlying osteophytes are removed and if indicated, the cruciate ligaments are released. Next, attention is turned to the patella. The patella is measured and then the articular surface is resected at the appropriate depth. The optimal component size is selected and the fixation holes drilled. Next, attention is turned to the distal femur. The intramedullary canal is drilled and the distal femoral cutting block is applied. The alignment of the block is confirmed and the distal femoral resection is made. The AP and ML size of the distal femur is evaluated and the appropriate implant size selected following which the remaining chamfer and AP bone cuts of the distal femur are made. The remainder of the posterior cruciate ligament is excised to expose everything back to the capsule. This tissue is resected, taking great care to leave the collateral ligaments intact and protect the neurovascular structures. The tibia is subluxed forward and the tibial cutting guide is applied, the optimal position in all planes confirmed and the bone cut made. The tibia is sized for the appropriate implant and the bone prepared. Next, the trial components are inserted and a trial reduction of the prosthetic knee is performed. Overall limb alignment, soft tissue and ligamentous balance and prosthetic interactions are assessed. Further refinement of the soft tissue balance, the bone resections for alignment and the prosthetic implant interaction are performed as indicated to optimize the prosthetic longevity. The polyethylene insert into place onto the tibial prosthesis. Knee stability, range of motion and alignment are again confirmed. Having completed all of the preparations, the tourniquet is released, hemostasis obtained, a deep drain placed, and the wound closed in layers.

Description of Post-Service Work: Post-service begins after skin closure in the operating room and includes application of sterile dressing and extension splint or continuous Passive Motion apparatus (CPM). Post-operative work also includes monitoring patient stabilization in the recovery room; communication with the family and other health care professionals (including written and oral reports and orders); and all hospital visits and services performed by the surgeon, including monitoring lab reports; care and removal of drains and dressings; supervision of physical or occupational therapy; ordering and reviewing postoperative X-rays; and antibiotic, anticoagulation and pain medication management. Discharge day management includes the surgeon's final examination of the patient, instructions for continuing care including home health care, and preparation of discharge records. Additionally, all post-discharge office visits for this procedure for 90 days after the day of the operation are considered part of the postoperative work for this procedure; including removal sutures; evaluation of periodic imaging and laboratory reports, if needed; review of anticoagulation laboratory values and appropriate medication adjustment, and antibiotic and pain medication adjustments. Supervising the recovery of range of motion as well as ambulatory status is most important during the postoperative course and involves not only oversight of in-hospital therapy but home or outpatient care physical therapy as well.

### SURVEY DATA

<b>RUC Meeting Date (mm/yyyy)</b>		09/2005			
<b>Presenter(s):</b>	Dale Blasier, MD, American Academy of Orthopaedic Surgeons Carlos Lavernia, MD, American Association of Hip and Knee Surgeons Brian Parsley, MD, American Association of Hip and Knee Surgeons Frank Voss, MD, American Association of Hip and Knee Surgeons				
<b>Specialty(s):</b>	Orthopaedic Surgery				
<b>CPT Code:</b>	27447				
<b>Sample Size:</b> 500	<b>Resp n:</b> 42	<b>Response:</b> 8%			
<b>Sample Type:</b> Random					
	<b>Low</b>	<b>25<sup>th</sup> pctl</b>	<b>Median</b>	<b>75th pctl</b>	<b>High</b>
<b>RVW:</b>	15.00	21.00	<b>21.50</b>	24.00	40.00
<b>Pre-Service Evaluation Time:</b>			<b>60.0</b>		
<b>Pre-Service Positioning Time:</b>			<b>20.0</b>		
<b>Pre-Service Scrub, Dress, Wait Time:</b>			<b>15.0</b>		
<b>Intra-Service Time:</b>	60.00	70.00	<b>90.00</b>	100.00	180.00
<b>Post-Service</b>	<b>Total Min**</b>	<b>CPT code / # of visits</b>			
<b>Immed. Post-time:</b>	<b><u>30.00</u></b>				
<b>Critical Care time/visit(s):</b>	<b><u>0.0</u></b>	99291x 0.0	99292x 0.0		
<b>Other Hospital time/visit(s):</b>	<b><u>87.0</u></b>	99231x 3.0	99232x 1.0	99233x 0.0	
<b>Discharge Day Mgmt:</b>	<b><u>36.0</u></b>	99238x 1.00	99239x 0.00		
<b>Office time/visit(s):</b>	<b><u>99.0</u></b>	99211x 0.0	12x 1.0	13x 2.0	14x 1.0 15x 0.0

\*\*Physician standard total minutes per E/M visit: 99291 (63); 99292 (32); 99233 (41); 99232 (30); 99231 (19); 99238 (36); 99215 (59); 99214 (38); 99213 (23); 99212 (15); 99211 (7).

**KEY REFERENCE SERVICE:**

<u>Key CPT Code</u>	<u>Global</u>	<u>Work RVU</u>
23472	090	21.07

*CPT Descriptor Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder))*

**KEY MPC COMPARISON CODES:**

Compare the surveyed code to codes on the RUC’s MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

<u>MPC CPT Code 1</u>	<u>Global</u>	<u>Work RVU</u>
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CPT Descriptor

**RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):**

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. **Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.**

<b>TIME ESTIMATES (Median)</b>	Key Reference	
	CPT Code: <b>27447</b>	CPT Code: <b>23472</b>
Median Pre-Service Time	95.00	60.00
Median Intra-Service Time	90.00	165.00
Median Immediate Post-service Time	30.00	30.00
Median Critical Care Time	0.0	0.00
Median Other Hospital Visit Time	87.0	68.00
Median Discharge Day Management Time	36.0	36.00
Median Office Visit Time	99.0	84.00
<b>Median Total Time</b>	<b>437.00</b>	<b>443.00</b>
Other time if appropriate		

**INTENSITY/COMPLEXITY MEASURES (Mean)**

**Mental Effort and Judgment (Mean)**

The number of possible diagnosis and/or the number of management options that must be considered	2.55	2.92
The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed	3.55	3.08
Urgency of medical decision making	4.09	2.58

**Technical Skill/Physical Effort (Mean)**

Technical skill required	3.55	3.75
Physical effort required	3.73	3.42

**Psychological Stress (Mean)**

The risk of significant complications, morbidity and/or mortality	4.45	3.67
Outcome depends on the skill and judgment of physician	3.82	3.83
Estimated risk of malpractice suit with poor outcome	3.91	4.00

**INTENSITY/COMPLEXITY MEASURES**

**CPT Code**      **Reference Service 1**

**Time Segments (Mean)**

Pre-Service intensity/complexity	3.91	3.08
Intra-Service intensity/complexity	3.55	3.50
Post-Service intensity/complexity	3.18	3.00

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## COMPELLING EVIDENCE RATIONALE (Required to be Completed)

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

The AAOS and AAHKS convened an expert panel to develop a RVW recommendation for 27447 using survey data, National Surgical Quality Improvement Program (NSQIP) data, and CMS DRG data. The expert panel's rationale is discussed in detail below.

### Pre-Service Time

The expert panel reviewed the pre-service time data from the RUC survey and agreed the times were appropriate. The expert panel noted that 60 minutes of evaluation time was higher as compared to other surgical procedures, but it was still within the range of evaluation time for 90-day global procedures. The expert panel believes the increased evaluation time for this procedure can be accounted for by the templating that is typically performed as part of the pre-service work. The 20 minutes of positioning time and 15 minutes of scrub, dress, wait time are typical for 90-day global procedures – especially with respect to orthopaedic procedures.

**The expert panel recommends 95 minutes of total pre-service time for 27447, and specifically recommends 60 minutes evaluation, 20 minutes positioning, and 15 minutes scrub, dress, and wait time.**

### Intra-Service Time

The expert panel reviewed the intra-service time data from the RUC survey and believed the median time of 90 minutes did not fully capture all of the intra-service time required for this procedure. As such, the expert panel looked to other objective sources of data in order to develop appropriate intra-service time recommendations.

The National Surgical Quality Improvement Project (NSQIP) is a national, validated, outcomes-based, risk adjusted program that measures aspects of surgical care. NSQIP intra-operative data indicate a median intra-operative time of 124 minutes for 27447, based on 10,365 patient records.

The expert panel also considered the CMS DRG database, which includes actual operating room time for 27447, compiled from automated hospital tracking software. This data was used by CMS in early 2005 to update the DRG for total joint arthroplasty under Medicare's Inpatient Prospective Payment System. The mean total operating room time for 2,916 total knee arthroplasty cases (27447) was 199.7 minutes. To estimate the skin-to-skin time, we subtracted the positioning time (20 minutes), scrub/dress/wait time (15 minutes), and a portion of the immediate post-time through discharge from recovery (20 minutes) from the total OR time (199.7 minutes) to arrive at an estimate of 144.7 minutes ( $199.7 - 55 = 144.7$ ).

**The expert panel recommends 124 minutes of intra-operative time for 27447 and bases this recommendation on its review of the data from these two large databases.** The expert panel bases its recommendation on 13,281 actual cases from independent, national, hospital databases. The expert panel believes the voluminous intra-service data from the NSQIP and DRG database is considerably more reliable than the estimates of intra-service time collected from the RUC survey data.

### Post-Service Time

The expert panel reviewed the immediate post-service time data from the RUC survey and agreed the 30 minutes indicated by survey respondents was appropriate. The expert panel noted the immediate post-service time for the reference code, 23472 Arthroplasty, glenohumeral joint; total shoulder (glenoid and

*proximal humeral replacement (eg, total shoulder)*), is also 30 minutes. 30 minutes falls within the range of immediate post-service time for 90-day global procedures – especially with respect to orthopaedic procedures.

**The expert panel recommends 30 minutes post-service time for 27447.**

### **Hospital Visits**

The expert panel reviewed the post-operative hospital visit data from the RUC survey and believed survey respondents accurately identified the number and intensity of hospital visits required for this procedure. The expert panel validated the number of hospital visits indicated by survey respondents by comparing the survey results with two large databases. The expert panel noted that the survey results were consistent with the databases. The NSQIP data for 27447 indicates the total hospital length of stay (LOS) is 5 days. The NSQIP LOS data is based on 10,294 total knee arthroplasty cases. The CMS DRG database shows the mean hospital length of stay as 5 days. This data is based on 2,916 total knee arthroplasty cases.

**The expert panel recommends 5 hospital visits (99231x3, 992232x1, 99238x1) for 27447.** The expert panel bases its 5-day hospital length of stay recommendation on both RUC survey and actual data from 13,210 cases from independent, national hospital databases which confirmed the survey results. The expert panel agrees with survey respondents in the fact that one higher level hospital visit (99232) is appropriate because the initial hospital visit following surgery requires additional time and effort as compared to subsequent hospital visits. For example, the physician must address pain management, initiate DVT prophylaxis, and develop a PT regimen during this visit.

### **Office Visits**

The expert panel reviewed the post-operative office visit data from the RUC survey and agreed the number and intensity of office visits were appropriate.

**The expert panel recommends 4 office visits (99213x3, 99212x1) for 27447.**

### **RVW**

The expert panel noted its total time recommendation reflects higher times than the existing Harvard data. The expert panel also noted the overall intensity measures were similar for 27447 and the most commonly selected reference code, 23472 *Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (eg, total shoulder))*. The post-operative office visit pattern for 27447 and the reference code (23472) were similar.

The expert panel noted there was a difference in the number of hospital visits from the Harvard data as compared to the survey data; however, they believed it was inappropriate to make this comparison for several reasons. First, when the Harvard hospital time (118 minutes) is compared with the Harvard number of hospital visits (99231x9, 99238x1), it suggests either a lower intensity visit was used for the Harvard study than is currently used by the RUC, or the number of visits were extrapolated from the total time. Second, it is unclear as to whether more than one visit per day was reported under the Harvard study. If this was the case, it is inconsistent with current RUC and CPT standards which allow a physician to report only one visit per day. Because of the methodological differences, the expert panel believes the Harvard hospital visit data cannot be compared with RUC survey data. The expert panel believes the current RUC survey and NSQIP data accurately reflect the number and intensity of post-operative hospital visits, and also believes there has been no decrease in the amount work required for post-operative hospital care.

The expert panel noted the survey median RVW of 21.50 was a slight increase from the current RVW of 21.45. The median survey RVW suggests that survey respondents believe the overall work involved for this procedure has not significantly changed. After consideration of the time, visit, and intensity factors, the expert panel agrees and recommends maintaining the current RVW of 21.45 for 27447.

### IWPUT

The IWPUT calculations using the time and visit recommendations of the expert panel and the current RVW for 27447 is shown below.

#### IWPUT for 27447

	Data	RUC Std.	RVW
			<b>RVW</b>
			<b>21.45</b>
			<b>RVW</b>
<b>Pre-service:</b>	<b>Time</b>	<b>Intensity</b>	<b>(=time x intensity)</b>
Pre-service eval & positioning	80	0.0224	1.34
Pre-service scrub, dress, wait	15	0.0081	0.16
<b>Pre-service total</b>			<b>1.91</b>
			<b>(=time x intensity)</b>
<b>Post-service:</b>	<b>Time</b>	<b>Intensity</b>	<b>(=time x intensity)</b>
Immediate post	30	0.0224	0.67
Subsequent visits:		<b>E/M RVW</b>	<b>(=n x RVW)</b>
ICU 99291		4.00	0.00
ICU 99292		2.00	0.00
NICU 99296		16.00	0.00
NICU 99297		8.00	0.00
99233		1.51	0.00
99232	1	1.06	1.06
99231	3	0.64	1.92
Discharge 99238	1	1.28	1.28
Discharge 99239		1.75	0.00
99215		1.73	0.00
99214	1	1.08	0.00
99213	2	0.65	1.95
99212	1	0.43	0.00
99211		0.17	0.00
<b>Post-service total</b>			<b>7.74</b>
	<b>Time</b>	<b>IWPUT</b>	<b>INTRA-RVW</b>
<b>Intra-service:</b>	124	<b>0.095</b>	11.79

The AAOS and AAHKS believe it is appropriate to maintain the current RVW of 21.45 for 27447. Additionally, the AAOS and AAHKS recommend the time and visit data presented replace the Harvard data in the CMS and RUC database.

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## Services Reported with Multiple CPT Codes

5. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

- The surveyed code is an add-on code or a base code expected to be reported with an add-on code.  
 Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.
- Multiple codes allow flexibility to describe exactly what components the procedure included.  
 Multiple codes are used to maintain consistency with similar codes.  
 Historical precedents.  
 Other reason (please explain)

6. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario. N/A

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### Five-Year Review Specific Questions:

Please indicate the number of survey respondent percentages responding to each of the following questions (for example 0.05 = 5%):

Has the work of performing this service changed in the past 5 years? Yes 79% No 21%

G. This service represents new technology that has become more familiar (i.e., less work):  
I agree 90% I do not agree 91%

H. Patients requiring this service are now:  
more complex (more work) 100% less complex (less work) no change

I. The usual site-of-service has changed:  
from outpatient to inpatient from inpatient to outpatient no change 100%

**Addendum to RUC Summary of Recommendation Form  
Five-Year Review of Physician Work  
Resulting Practice Expense Direct Input Modifications**

CPT Code: 27447

**Current Time Data** (2005 Medicare Physician Payment Schedule – Utilize Report Provided by AMA Staff with Survey Packet)

<b>Complete if Code is priced in the non-facility:</b>			
Physician Intra-Service Time:			
Clinical Staff #1	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time
Clinical Staff #2	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time
<b>Complete if the global period is 010, or 090</b>			
Discharge Day (none, 1/2, or full)		99238: 1.0	
Number and Level of Office Visits:		99211:	
		99212:	
		99213: 4.0	
		99214:	
		99215:	

**Revised Time Data** (Base physician time data on new survey data and recommendations; use current staff type and ratios from above to compute new clinical staff intra assist physician time. The change in staff intra-assist physician time is the difference between the current and revised intra-assist physician time)

<b>Complete if Code is priced in the non-facility:</b>			
Physician Intra-Service Time:			
Clinical Staff #1	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time <b>Change: In Time</b>
Clinical Staff #2	Staff Type:	Intra Assist Physician Time:	Staff % of Physician time <b>Change: In Time</b>
<b>Complete if the global period is 010, or 090</b>			
Discharge Day (none, 1/2, or full)		99238: 1.0	
Number and Level of Office Visits:		99211:	
		99212: 1.0	
		99213: 2.0	
		99214: 1.0	
		99215:	

## APPENDIX E

### Excerpt from September 2005 RUC Recommendations to CMS

#### AMA/SPECIALTY SOCIETY RVS UPDATE COMMITTEE RBRVS FIVE - YEAR REVIEW

#### RUC 2 – ORTHOPAEDIC SURGERY

##### Total Joint and Hip Fracture (27130, 27447, 27236)

These three codes were placed in the five-year review by CMS. The RUC workgroup reviewed these codes in August and assigned action key 2, No Change, because the specialty developed its recommendations based solely on NSQIP data and a Medicare DRG database. The specialty conducted a survey but concluded that it was faulty because the vignettes did not describe a typical patient. The specialty did not provide this survey data to the workgroup. The workgroup then requested the specialty to conduct a survey for the September RUC meeting with the understanding that the workgroup chair would extract the codes.

The specialties presented recommendations primarily based on survey data, however, the recommendations were supplemented by NSQIP and data for intra-service time. In addition the specialties then compared the codes with other RUC reviewed codes to show that the recommended values and times placed the codes in proper rank order.

The RUC began its review by reducing the preservice times for all three codes. The workgroup then discussed in detail the use of survey intra-service time as opposed to NSQIP time. For example, code 27130 has 135 minutes of NSQIP intra-service time as opposed to 110 minutes based on the survey. The specialties stated that the survey intra-service time of 110 minutes did not fully capture all of the intra-service time and compared this time to NSQIP time of 135 minutes and a CMS DRG time of 144 minutes. The specialty explained that their methodology was to use the surveyed number and level of hospital visits when that survey derived length of stay equaled the NSQIP length of stay. This was used for codes 27130 and 27447. For 27236 the specialty chose to assign a number and level of visits based on the NSQIP length of stay because the specialty felt that the NSQIP length of stay was in proper rank order in comparison to the other two codes under review and the survey underestimated the visits.

The RUC discussed whether the NSQIP intra-service time should be used instead of the survey data and agreed for these three codes to use NSQIP intra-service times, recognizing that for codes 27130 and 27447 the NSQIP time is higher and for code 27236 the NSQIP time is lower. For code 27236 the specialty recommended using the NSQIP length of stay of six days as opposed to the imputed survey derived length of stay of five days. Other than these exceptions for intra-service time and length of stay for 27236, all other time data is based on the survey.

Some RUC members were uncomfortable with mixing NSQIP and survey data as opposed to using only survey data, but the specialty explained that the NSQIP intra-service time was felt to be more valid and also consistent with the DRG database. Additionally for codes 27130 and 27447 the survey imputed length of stay matched the NSQIP length of stay data so the survey hospital visit data was felt to be validated by NSQIP. For 27236 the NSQIP length of stay data was used because it placed the hospital visit data in proper rank order. Also, the specialties stated that the NSQIP intra-service time was more consistent among the three codes as the survey intra-service times were inconsistent. For example, the survey intra-service time

for 27236 was 120 minutes and 27130 was 110 minutes. According to the presenters the relationship between the two codes are exactly the opposite and 27236 should have a higher intra-service time and the survey times were flawed. Therefore to preserve proper rank order in intra-service time, the workgroup recommends using the NSQIP derived intra-service times for all three codes. Additionally, the workgroup examined the IWPUT values based on these times and felt that resulting intensities supported using these times.

The RUC also compared the specialty recommendation with the existing Harvard times. The survey data suggests a decrease in length of stay for each of the codes but the presenters argued that although there are now fewer hospital visits, the total amount of work has not changed because the hospital and office visits are at a higher level and are more intense since the patients are discharged earlier. The presenters also questioned whether the CMS assigned number and level of post-service visits were accurate.

Based on a review of the survey data and the NSQIP data for intra-service time as well as a comparison to other reference codes, the workgroup did not see any compelling evidence for changing the current work RVUs. The RUC did agree to maintain the current work relative values but to accept the new physician times.

**Submitter :** Dr. Deepak Gangahar  
**Organization :** Nebraska Heart Institute  
**Category :** Physician

**Date:** 08/21/2006

**Issue Areas/Comments**

**Practice Expense**

Practice Expense  
See attachment

CMS-1512-PN-2166-Attach-1.DOC

Mark McClellan, M.D., Ph.D.  
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Centers for Medicare and Medicaid Services  
U.S. Department of Health and Human Services  
CMS-1512-PN  
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**Re: Proposed Notice re: Five-Year Review of Work Relative Value Units Under the Physician Fee Schedule and Proposed Changes to the Practice Expense Methodology (June 29, 2006); Comments re: Practice Expense**

08/18/2006

Dear Dr. McClellan:

On behalf of Nebraska Heart Institute and our 33 individual practicing physicians, we appreciate the opportunity to submit comments to the Centers for Medicare & Medicaid Service ("CMS") regarding the June 29, 2006 Proposed Notice ("Notice") regarding Proposed Changes to the Practice Expense ("PE") Methodology and its impact on our practices.

Nebraska Heart Institute has seven offices across the state, including four outpatient cath labs in Lincoln, Omaha, Hastings, and North Platte, Nebraska. Before Nebraska Heart Institute's cath labs in Hastings and North Platte were installed, patients had to travel hours to receive elective outpatient catheterizations, and our labs in those relatively rural areas have significantly improved patient care and access to proper diagnostic testing for suspected coronary artery disease. We perform 3,000 heart catheterizations in these four labs annually.

The proposed approach is biased against procedures, such as outpatient cardiovascular catheterizations, for which the Technical Component ("TC") is a significant part of the overall procedure. Catheterization procedures are being used as an example of the impact of the proposed methodology on procedures with significant TC costs because they share the same problems that we will outline below. We also believe that the same solution should be applied to all of the procedures listed below.

With regard to catheterizations, the proposed change in PE RVUs would result in a 53.1 percent reduction of payments for CPT 93510 TC. Similarly, payment for two related codes—93555 TC and 93556 TC would be reduced substantially. In fact, under the Medicare Physician Fee Schedule ("PFS"), payment for these three codes would fall from 94 percent of the proposed 2007 APC rate for these three codes to 34 percent of the APC payment amount. These codes are representative of a range of procedures performed in cardiovascular outpatient centers.

<b>CPT Code</b>	<b>Description</b>
93510 TC	Left Heart Catheterization
93555 TC	Imaging Cardiac Catheterization
93556 TC	Imaging Cardiac Catheterization
93526 TC	Rt & Lt Heart Catheters

The stated purpose of the proposed change to a bottom up micro-costing approach is laudable and consistent with the statutory requirement that the Medicare program base payment on the use of necessary resources. However, the proposed methodology and inputs to the calculation do not comport with the statutory requirement that would match resources to payments. After reviewing the proposed methodology, including the 19 step calculation, we have identified several flaws that result in the PE RVU underestimating the resources needed to provide the technical component of cardiac catheterizations. We will address our concerns with the calculation of direct costs and indirect costs separately, as set forth below.

### **Direct Costs**

The estimate of direct costs is critical for the first step in calculating the PE RVU for each procedure code. The direct costs are based on inputs from the American Medical Association's RVS Update Committee ("RUC") and reflect the direct costs of clinical labor, medical supplies and medical equipment that are typically used to perform each procedure. The RUC-determined direct costs do not reflect estimates of additional labor, supply and equipment costs that were submitted by (The Society for Cardiovascular Angiography and Interventions ("SCAI") or an industry group). As a result, the RUC-determined cost estimate is about half of the estimate that would result if all of the data were included. The addition of these additional costs which are consistent with the RUC protocol would increase the proposed PE RVUs by 24 percent.

Even if the RUC estimates included the additional costs submitted by SCAI or an industry group, the estimate is not an accurate reflection of direct costs of the resources necessary to provide the procedure because the RUC takes a narrow view of direct costs. Specifically, the RUC includes costs only if they are relevant to 51 percent of the patients. This definition of direct costs does not count the costs of supplies and the clinical labor time that may be required for the other 49 percent of the patients that may not fit the average profile. This approach is particularly inconsistent with the realities of the clinical staff needed for a catheterization facility and does not reflect the differences in clinical practice patterns. For example, some catheterization labs may use wound closure devices that will increase supply costs while lowering clinical staff time. Other labs may not use closure devices to the same extent and may allocate more staff time to apply compression to the wound. These costs would not be counted in the RUC-determined direct cost estimate unless they apply to 51 percent of the patients. Based on the PEAC Direct Input data from the CMS website, it appears that the RUC inputs assume the time that may be required if wound closures were used, but it fails to include a wound closure device in the supply list of direct costs.

Unless the RUC considers the actual costs of the clinical labor, supply and equipment used to perform a cardiac catheterization, the PE RVU that results at the end of the 19 step calculation will never reflect the actual resources needed to perform the procedure and will result in destabilizing practice expense payments to physicians. Therefore, CMS must evaluate the adequacy of the direct inputs and focus on developing a methodology that captures the average direct costs of performing a procedure, rather than the direct costs of performing a procedure that represents 51 percent of the patients.

A new methodology is needed based on the best data available so that the direct costs shown in the third column of the table below can be allocated in a manner similar to the allocation of indirect costs. This would result in a PE RVU that is a more accurate reflection of the direct and indirect costs for the resources that are critical to performing the procedure.

***Categories of Cardiac Catheterization Direct Costs Included or Excluded  
From RUC–Determined Estimates***

<b><i>Direct Cost Category</i></b>	<b><i>Included In RUC– Determined Estimate</i></b>	<b><i>Excluded From RUC– Determined Estimate</i></b>
Clinical Labor	<ul style="list-style-type: none"> <li>• Direct Patient Care For Activities Defined by RUC</li> <li>• Allocation of Staff Defined by RUC Protocol (1:4 Ratio of RN to Patients in Recovery)</li> </ul>	<ul style="list-style-type: none"> <li>• Direct Patient Care For Activities Not Defined by RUC</li> <li>• Actual Staff Allocation Based on Patient Needs</li> </ul>
Medical Supplies	<ul style="list-style-type: none"> <li>• Supplies Used For More Than 51% of Patients</li> </ul>	<ul style="list-style-type: none"> <li>• Supplies Used For Less Than 51% of Patients</li> </ul>
Medical Equipment	<ul style="list-style-type: none"> <li>• Equipment Used For More Than 51% of Patients</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment Used For Less Than 51% of Patients</li> </ul>
All Direct Costs for Cardiac Catheterization	<ul style="list-style-type: none"> <li>• Approximately 55% of the direct costs are included in the RUC estimate</li> </ul>	<ul style="list-style-type: none"> <li>• Approximately 45% of the direct costs are included in the RUC estimate</li> </ul>

A complete accounting of all of the direct costs associated with performing a cardiac catheterization procedure would result in a PE RVU that is almost two times the proposed amount, and would begin to approximate the actual costs of providing the service. There are additional improvements that can be made in the manner by which the indirect costs are estimated that are outlined below.

## **Indirect Costs**

The “bottom-up” methodology estimates indirect costs at the procedure code level using data from surveys of practice costs of various specialties. The methodology uses the ratio of direct to indirect costs at the practice level in conjunction with the direct cost estimate from the RUC to estimate the indirect costs for each procedure code. As a result, the indirect costs of cardiac catheterization procedure codes are understated because the direct costs do not reflect all of the actual costs. In addition, most of the PE RVUs reflect a weighted average of the practice costs of two specialties – Independent Diagnostic Treatment Facilities (“IDTFs”), which account for about two-thirds of the utilization estimate for 93510 TC, and cardiology. The IDTF survey includes a wide range of facilities, but do not reflect the cost profile of cardiac catheterization facilities--that may have a cost profile similar to cardiology in terms of the higher indirect costs that are associated with performing these services.

If CMS were to base the PE RVU for cardiac catheterization on the practice costs from cardiology surveys rather than a weighted average of cardiology and IDTFs, the PE RVU would increase about 24 percent. However, the payment would still fall far below the costs associated with the resources needed to provide the service efficiently. This finding supports the conclusion that the inputs to the calculations are flawed and need to be changed to ensure that they reflect accurately both (1) the direct costs at the procedure level, and (2) the indirect costs at the practice level.

## **Solutions**

We believe that the proposed “bottom up” methodology is flawed with respect to cardiac catheterization procedures and CMS needs to develop a new approach that identifies the actual direct costs at the procedure level. The set of costs that are considered by the RUC are incomplete and need to be expanded now that the non-physician work pool (“NPWP”) has been eliminated. The RUC-determined costs need to reflect all of the costs of clinical labor, not only the labor associated with the sub-set of patient care time that is currently considered. The supply and equipment costs also need to reflect current standards of care.

The problem created under the PE-RVU methodology set out in the Notice would result in a draconian cut in reimbursement for cardiac catheterization performed in practice or IDTF locations. The magnitude of the inequitable treatment caused by the resulting cuts is immediately apparent from a comparison with the APC payment rate for similar procedures. As a result, we request that CMS freeze payment for these cardiac catheterization-related procedure codes for one year to allow time for a complete assessment of the cost profile of the services listed in the chart provided above.

We will be collaborating with our membership organization, the Cardiovascular Outpatient Center Alliance (“COCA”) to develop improved estimates of direct and indirect costs that may be submitted to CMS to supplement these comments either separately or as part of our comments in our response to the Proposed Rule addressing Revisions to Payment Policies Under the Physician Fee Schedule for Calendar Year 2007. It is our understanding that CMS will accept additional data that helps CMS in evaluating the impact of the PE RVU methodology on our practices.

Because the cost data for catheterizations in particular do not reflect the actual cost of providing heart catheterizations, we may be forced to close our four Nebraska catheterization labs, as we would be losing money on every single procedure. This would move 3,000 elective catheterizations to other Nebraska hospitals, which would still be able to cover the cost of doing a catheterization. We believe this would cause a serious patient access problem for patients needing emergent catheterization in a hospital setting. Door-to-Balloon Time, an important measure of the survival of acute cardiac patients, would most certainly increase due to the large numbers of elective procedures in hospital labs. We believe that shifting elective catheterizations with low complication rates to hospital labs would create an inability to provide the high-quality care Nebraska's hospital patients currently receive.

Sincerely,

Deepak Gangahar, MD

**Submitter :** Dr. Atul Ramachandran  
**Organization :** Nebraska Heart Institute  
**Category :** Physician

**Date:** 08/21/2006

**Issue Areas/Comments**

**Practice Expense**

Practice Expense

See attachment

CMS-1512-PN-2167-Attach-1.DOC

ATTACH #  
2167

Mark McClellan, M.D., Ph.D.  
Administrator  
Centers for Medicare and Medicaid Services  
U.S. Department of Health and Human Services  
CMS-1512-PN  
Mail Stop C4-26-05  
7500 Security Boulevard  
Baltimore, Maryland 21244-1850

**Re: Proposed Notice re: Five-Year Review of Work Relative Value Units Under the Physician Fee Schedule and Proposed Changes to the Practice Expense Methodology (June 29, 2006); Comments re: Practice Expense**

**08/18/2006**

Dear Dr. McClellan:

On behalf of Nebraska Heart Institute and our 33 individual practicing physicians, we appreciate the opportunity to submit comments to the Centers for Medicare & Medicaid Service ("CMS") regarding the June 29, 2006 Proposed Notice ("Notice") regarding Proposed Changes to the Practice Expense ("PE") Methodology and its impact on our practices.

Nebraska Heart Institute has seven offices across the state, including four outpatient cath labs in Lincoln, Omaha, Hastings, and North Platte, Nebraska. Before Nebraska Heart Institute's cath labs in Hastings and North Platte were installed, patients had to travel hours to receive elective outpatient catheterizations, and our labs in those relatively rural areas have significantly improved patient care and access to proper diagnostic testing for suspected coronary artery disease. We perform 3,000 heart catheterizations in these four labs annually.

The proposed approach is biased against procedures, such as outpatient cardiovascular catheterizations, for which the Technical Component ("TC") is a significant part of the overall procedure. Catheterization procedures are being used as an example of the impact of the proposed methodology on procedures with significant TC costs because they share the same problems that we will outline below. We also believe that the same solution should be applied to all of the procedures listed below.

With regard to catheterizations, the proposed change in PE RVUs would result in a 53.1 percent reduction of payments for CPT 93510 TC. Similarly, payment for two related codes—93555 TC and 93556 TC would be reduced substantially. In fact, under the Medicare Physician Fee Schedule ("PFS"), payment for these three codes would fall from 94 percent of the proposed 2007 APC rate for these three codes to 34 percent of the APC payment amount. These codes are representative of a range of procedures performed in cardiovascular outpatient centers.

<b>CPT Code</b>	<b>Description</b>
93510 TC	Left Heart Catheterization
93555 TC	Imaging Cardiac Catheterization
93556 TC	Imaging Cardiac Catheterization
93526 TC	Rt & Lt Heart Catheters

The stated purpose of the proposed change to a bottom up micro-costing approach is laudable and consistent with the statutory requirement that the Medicare program base payment on the use of necessary resources. However, the proposed methodology and inputs to the calculation do not comport with the statutory requirement that would match resources to payments. After reviewing the proposed methodology, including the 19 step calculation, we have identified several flaws that result in the PE RVU underestimating the resources needed to provide the technical component of cardiac catheterizations. We will address our concerns with the calculation of direct costs and indirect costs separately, as set forth below.

### **Direct Costs**

The estimate of direct costs is critical for the first step in calculating the PE RVU for each procedure code. The direct costs are based on inputs from the American Medical Association's RVS Update Committee ("RUC") and reflect the direct costs of clinical labor, medical supplies and medical equipment that are typically used to perform each procedure. The RUC-determined direct costs do not reflect estimates of additional labor, supply and equipment costs that were submitted by (The Society for Cardiovascular Angiography and Interventions ("SCAI") or an industry group). As a result, the RUC-determined cost estimate is about half of the estimate that would result if all of the data were included. The addition of these additional costs which are consistent with the RUC protocol would increase the proposed PE RVUs by 24 percent.

Even if the RUC estimates included the additional costs submitted by SCAI or an industry group, the estimate is not an accurate reflection of direct costs of the resources necessary to provide the procedure because the RUC takes a narrow view of direct costs. Specifically, the RUC includes costs only if they are relevant to 51 percent of the patients. This definition of direct costs does not count the costs of supplies and the clinical labor time that may be required for the other 49 percent of the patients that may not fit the average profile. This approach is particularly inconsistent with the realities of the clinical staff needed for a catheterization facility and does not reflect the differences in clinical practice patterns. For example, some catheterization labs may use wound closure devices that will increase supply costs while lowering clinical staff time. Other labs may not use closure devices to the same extent and may allocate more staff time to apply compression to the wound. These costs would not be counted in the RUC-determined direct cost estimate unless they apply to 51 percent of the patients. Based on the PEAC Direct Input data from the CMS website, it appears that the RUC inputs assume the time that may be required if wound closures were used, but it fails to include a wound closure device in the supply list of direct costs.

Unless the RUC considers the actual costs of the clinical labor, supply and equipment used to perform a cardiac catheterization, the PE RVU that results at the end of the 19 step calculation will never reflect the actual resources needed to perform the procedure and will result in destabilizing practice expense payments to physicians. Therefore, CMS must evaluate the adequacy of the direct inputs and focus on developing a methodology that captures the average direct costs of performing a procedure, rather than the direct costs of performing a procedure that represents 51 percent of the patients.

A new methodology is needed based on the best data available so that the direct costs shown in the third column of the table below can be allocated in a manner similar to the allocation of indirect costs. This would result in a PE RVU that is a more accurate reflection of the direct and indirect costs for the resources that are critical to performing the procedure.

***Categories of Cardiac Catheterization Direct Costs Included or Excluded  
From RUC-Determined Estimates***

<b><i>Direct Cost Category</i></b>	<b><i>Included In RUC-Determined Estimate</i></b>	<b><i>Excluded From RUC-Determined Estimate</i></b>
Clinical Labor	<ul style="list-style-type: none"> <li>• Direct Patient Care For Activities Defined by RUC</li> <li>• Allocation of Staff Defined by RUC Protocol (1:4 Ratio of RN to Patients in Recovery)</li> </ul>	<ul style="list-style-type: none"> <li>• Direct Patient Care For Activities Not Defined by RUC</li> <li>• Actual Staff Allocation Based on Patient Needs</li> </ul>
Medical Supplies	<ul style="list-style-type: none"> <li>• Supplies Used For More Than 51% of Patients</li> </ul>	<ul style="list-style-type: none"> <li>• Supplies Used For Less Than 51% of Patients</li> </ul>
Medical Equipment	<ul style="list-style-type: none"> <li>• Equipment Used For More Than 51% of Patients</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment Used For Less Than 51% of Patients</li> </ul>
All Direct Costs for Cardiac Catheterization	<ul style="list-style-type: none"> <li>• Approximately 55% of the direct costs are included in the RUC estimate</li> </ul>	<ul style="list-style-type: none"> <li>• Approximately 45% of the direct costs are included in the RUC estimate</li> </ul>

A complete accounting of all of the direct costs associated with performing a cardiac catheterization procedure would result in a PE RVU that is almost two times the proposed amount, and would begin to approximate the actual costs of providing the service. There are additional improvements that can be made in the manner by which the indirect costs are estimated that are outlined below.

## **Indirect Costs**

The “bottom-up” methodology estimates indirect costs at the procedure code level using data from surveys of practice costs of various specialties. The methodology uses the ratio of direct to indirect costs at the practice level in conjunction with the direct cost estimate from the RUC to estimate the indirect costs for each procedure code. As a result, the indirect costs of cardiac catheterization procedure codes are understated because the direct costs do not reflect all of the actual costs. In addition, most of the PE RVUs reflect a weighted average of the practice costs of two specialties – Independent Diagnostic Treatment Facilities (“IDTFs”), which account for about two-thirds of the utilization estimate for 93510 TC, and cardiology. The IDTF survey includes a wide range of facilities, but do not reflect the cost profile of cardiac catheterization facilities--that may have a cost profile similar to cardiology in terms of the higher indirect costs that are associated with performing these services.

If CMS were to base the PE RVU for cardiac catheterization on the practice costs from cardiology surveys rather than a weighted average of cardiology and IDTFs, the PE RVU would increase about 24 percent. However, the payment would still fall far below the costs associated with the resources needed to provide the service efficiently. This finding supports the conclusion that the inputs to the calculations are flawed and need to be changed to ensure that they reflect accurately both (1) the direct costs at the procedure level, and (2) the indirect costs at the practice level.

## **Solutions**

We believe that the proposed “bottom up” methodology is flawed with respect to cardiac catheterization procedures and CMS needs to develop a new approach that identifies the actual direct costs at the procedure level. The set of costs that are considered by the RUC are incomplete and need to be expanded now that the non-physician work pool (“NPWP”) has been eliminated. The RUC-determined costs need to reflect all of the costs of clinical labor, not only the labor associated with the sub-set of patient care time that is currently considered. The supply and equipment costs also need to reflect current standards of care.

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We will be collaborating with our membership organization, the Cardiovascular Outpatient Center Alliance (“COCA”) to develop improved estimates of direct and indirect costs that may be submitted to CMS to supplement these comments either separately or as part of our comments in our response to the Proposed Rule addressing Revisions to Payment Policies Under the Physician Fee Schedule for Calendar Year 2007. It is our understanding that CMS will accept additional data that helps CMS in evaluating the impact of the PE RVU methodology on our practices.

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Sincerely,

Atul Ramachandran, MD

**Submitter :**

**Date: 08/21/2006**

**Organization :**

**Category : Other Association**

**Issue Areas/Comments**

**GENERAL**

GENERAL

See attachment

CMS-1512-PN-2168-Attach-1.PDF

ATTACH #  
2168



MGMA Center for Research  
American College of Medical Practice Executives  
Medical Group Management Association

August 21, 2006

Mark McClellan, M.D., Ph.D.  
Administrator  
Centers for Medicare & Medicaid Services  
Department of Health and Human Services  
Attention: CMS-1512-PN Mail Stop C4-26-05  
7500 Security Boulevard  
Baltimore, MD 21244-1850

**Re: Medicare Program; Five-Year Review of Work Relative Value United Under the Physician Fee Schedule and Proposed Changes to the Practice Expense Methodology**

Dear Dr. McClellan:

The Medical Group Management Association (MGMA) appreciates the opportunity to respond to the proposed resource-based practice expense policy contained in the June 29, 2006 *Federal Register* notice Medicare Program; Five-Year Review of Work Relative Value United Under the Physician Fee Schedule and Proposed Changes to the Practice Expense Methodology. MGMA commends the Center for Medicare & Medicaid Services (CMS) for the development of a proposal that, while still requiring attention and modification, is a reasonable first step. We appreciate CMS' outreach to the medical community for discussion and feedback on the revisions to the work and practice expense RVUs.

MGMA is the oldest and largest organization representing physician group practices with more than 12,000 health care organizations nationwide in which just over 242,000 physicians practice medicine. MGMA's membership reflects the full range of physician organizational structures today, including large world renowned tax-exempt integrated delivery systems, taxable multi-specialty clinics, small single specialty practices, hospital-based clinics, academic practice plans, integrated delivery systems, management service organizations and physician practice management companies.

MGMA brings a particularly valuable perspective to this issue. As a research oriented organization, MGMA has collected practice expense data since 1955. Our data collection involves group practices which range in size from two to several hundred physicians. As such, we understand the magnitude and complexity of CMS' task. In addition, MGMA represents an equal proportion of primary and specialty care practices that are in the primary care and specialty care sectors. Consequently, we are able to detach ourselves from the "outcome" and focus primarily on the "methodology" applied.

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## **Practice Expense**

### *Methodology*

MGMA supports CMS' decision to implement a *bottom-up* methodology as opposed to the previous *top-down* approach. While the results of both approaches depend on the quality of the medical practice expense data collected, MGMA believes the *bottom-up* approach has a greater likelihood of resulting in accurate values. History has shown that calculating practice expenses using a data based methodology is more accurate when compared to a method that uses estimates of actual inputs.

In previous years, CMS has provided a significant amount of specificity regarding the process for developing the practice expense methodology. This year CMS did not include in the NPRM a thorough explanation of the calculations to allow specialties to determine their individual impact level of the practice expense changes to their specialty. CMS did not present sufficient examples to the provider community to make the change in methodology understandable. MGMA recommends that CMS' provide explicit examples for selected specialties to demonstrate to the provider community how the methodology is calculated. In addition, CMS provides data on the first and fourth year of the transition period; however there is no data provided on the impact of the changes to the methodology for years two and three. MGMA recommends that CMS provide that information to the provider community in an interim final rule with comment period.

### *Data Source*

As in previous comments, MGMA maintains its concern that the practice expenses methodology is based on the American Medical Association's (AMA) Socioeconomic Monitoring System (SMS) data which is dated and the Clinical Practice Expert Panel's (CPEP) data which is extremely subjective. The SMS data used to calculate practices expenses for FY2007 is from 1995-1999. MGMA recommends CMS conduct a new SMS survey in order to develop more accurate data that would result in equality for all specialties. The entity or organization contracted to conduct this new survey needs to be one that has proven its reliability in this area previously.

MGMA agrees with CMS that while the AMA SMS survey data is dated, a survey of this nature is the most appropriate and only primary data set in existence to determine specialty specific cost pools. We believe that not only does a new survey need to be conducted, but the methodology for conducting the survey needs to be enhanced as described below.

It is critical that the unit of observation used in a new survey reflect the organization rather than individual physicians who are owners or part-owners of their practices. The primary responsibility of the particular respondents is often the practice of medicine rather than the business operations of the practice. There are several reasons why the organization is preferable. First, the respondent must have both adequate knowledge about the business of medical practices and a comprehensive understanding about the information being

sought. Second, the respondent must have the ability to access such information for the entire practice.

While AMA's survey response rate has been strong historically at about 60 percent, not all respondents answered the practice expense portion of the survey. Specifically, the 1996 SMS report based on 1995 data indicates that 4004 overall respondents to the survey, 2352 were self-employed physicians and therefore eligible to report data on practice expenses. Of the 2352, 1552 provided total professional expenses, 1595 payroll, 1504 medical equipment, 1538 medical supply optimal resources, and 1573 office expenses. The overall response rate to the practice expense portion was 39.9 percent. While we understand that it is difficult for physicians who are owners or part-time owners of practices to respond to the practice expense portion, MGMA is hopeful that the response rate and thus the quality of responses will improve when the practice becomes the unit of observation.

Presently, AMA collects data on clinical labor, supplies, equipment and other practice costs. MGMA recommends that the entity chosen to conduct a new survey refine the expense categories to identify ancillary service expenses and activity data. Our experience has shown that medical groups with radiology or laboratory ancillary services have different expense experience than medical groups that do not have these services. Future refinements of the practice expense Relative Value Unit (RVU) component should isolate the effect of ancillary services from the total expense profile of the practice. This can only be accomplished if ancillary service expense data is separately collected.

When conducting a new survey, there must to be a mechanism to validate data. The benefit of collecting data from profit and loss statements is that the practice expense responses cannot be exaggerated.

MGMA remains concerned about the quality of the data gathered by the CPEPs but is pleased that it plays less of a role in the *bottom-up* methodology. Historically, our concern can be summarized as follows: (1) the composition of the CPEPs was inadequate as it consisted primarily of practicing physicians without adequate representation from practice managers; (2) there was no uniform policy on how CPEPs should deal with issues such as duplication of time or efficiencies that might result from performing more than one task at a time; and (3) there was inadequate time allotted for the CPEPs to meet. For example, because of the vast number of codes the CPEP had to value during their meetings, there simply was not enough time to devote to differences among codes.

As CMS, or an entity in its place, considers the practice expense issue, it must seek input from practice managers, especially since the information sought focuses largely on clinical and administrative staff time and not on physician time. Assuming the make-up of the panels is appropriate, they have the potential to refine the CPEP's data. However, to the extent that the panels will not have access to any actual practice expense data gathered from physician practices, they will have limited effectiveness. Nevertheless, convening panels could help identify egregious errors and/or highly anomalous results. MGMA recommends that panels be convened subsequent to the accumulation of actual

practice expense data to allow them to complete their work based on more accurate information.

MGMA is concerned about the process that CMS used to determine practice expenses. The *bottom-up* methodology loses an element of the data that provides for the significant differences between practices of the same specialty. To create a resource-based approach that conforms to real-world practice costs, CMS must collect actual service-level practice expense data directly from physician practices and base both direct and indirect PE RVUs on that data. Such data would give CMS a far more accurate database for direct costs than the current estimates developed by the CPEPs' process. Recognizing time constraints established by Congress and limited resources, at the very least, CMS should undertake a limited study on a cross-section of practice settings nationwide to obtain actual practice expense data from physicians' offices. The agency could use this data, however limited, to validate or refine the existing data obtained through the panels' process.

#### *Four-year transition*

MGMA supports a transition period and applauds CMS for the development of a transition period. We appreciate CMS' consideration of the upcoming negative update factor for CY 2007; however, we believe that the implementation timeline is not ideal because of the level of uncertainty surrounding the cumulative impact of the reductions in reimbursements on medical practices. MGMA recommends that CMS delay the implementation of practice expenses until all of the provisions within the Medicare Modernization Act have been implemented. This would allow all specialties sufficient time to implement provisions regulated prior to the practice expense changes.

#### *Budget neutrality adjustor*

MGMA believes that CMS should reconsider applying the budget neutrality adjustment factor to work RVUs. CMS does not provide an adequate rationale for shifting the budget neutrality adjustor to the work RVUs. In the past, CMS has suggested the same proposal and the provider community responded negatively. By placing the budget neutrality factor on the work RVUs, the affect to specialties is varied because of the different levels of work involved. Constant variation in the work RVUs due to budget neutrality adjustments hinders the process of establishing work RVUs for new and revised services. MGMA recommends that CMS apply the budget neutrality adjustor to the conversion factor in order to make the calculations more equitable and understandable to the provider community. MGMA believes that applying the budget neutrality to the conversion factor will have less impact on other payers who use the Medicare resourced-based relative value scale and be consistent with the notion that budget neutrality.

CMS is moving towards making pricing information for physicians, hospitals and other providers more transparent. MGMA recommends that CMS apply the principles of transparency to the Medicare policy that govern these prices. By applying the budget neutrality adjustment to the conversation factor, pricing

information to the provider community will be more transparent. Transparency of the financial effect of these changes will apply physicians and policymakers to more easily understand the impact of the cuts. In order to achieve CMS' goal of transparency of pricing information, the budget neutrality adjustments should be made to the conversion factor.

MGMA appreciates the opportunity to comment on this important issue and your consideration of these comments. If you have any questions, please contact Leah Cohen in the Government Affairs Department at 202.293.3450.

Sincerely,

A handwritten signature in black ink, appearing to read "William F. Jessee". The signature is fluid and cursive, with a long horizontal stroke at the end.

William F. Jessee, MD, FACMPE  
President and Chief Executive Officer

**Submitter :** Dr. Richard Kyle  
**Organization :** American Association of Orthopaedic Surgeons  
**Category :** Health Care Professional or Association

**Date:** 08/21/2006

**Issue Areas/Comments**

**GENERAL**

GENERAL

AAOS comments on budget neutrality and practice expense methodology are provided in full in the attached document.

CMS-1512-PN-2169-Attach-1.DOC

AAOS 11 #  
2169



American Academy of  
Orthopaedic Surgeons

AAOS

American Association of  
Orthopaedic Surgeons

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August 21, 2006

Mark B. McClellan, MD  
Administrator  
Centers for Medicare & Medicaid Services  
Department of Health and Human Services  
Attention: CMS-1512-PN  
P.O. Box 8014  
Baltimore, MD 21244-8014

**Re: Five-Year Review of Work Relative Value Units Under the Physician Fee  
Schedule and Proposed Changes to the Practice Expense Methodology – CMS-  
1512-PN**

Dear Administrator McClellan:

The American Association of Orthopaedic Surgeons (AAOS) appreciates the opportunity to comment on the Centers for Medicare & Medicaid Services (CMS) proposed rule on *Five-Year Review of Work Relative Value Units Under the Physician Fee Schedule and Proposed Changes to the Practice Expense Methodology*, 71 Fed. Reg. 125 (June 29, 2006). These AAOS comments cover proposed changes to the practice expense methodology and the proposed mechanisms to maintain budget neutrality. The AAOS has submitted a separate comment letter regarding work relative value unit changes from the Five-Year Review.

**BUDGET NEUTRALITY**

The Omnibus Budget Reconciliation Act of 1989 requires that increases or decreases in relative value units (RVUs) for a year may not cause the amount of expenditures for the year to differ by more than \$20 million from what expenditures would have been in the absence of these changes. The AAOS opposes any budget neutrality adjustments to the Physician Fee Schedule because \$20 million is an unreasonable cap for changes with respect to all health care provider payments under the Medicare Physician Fee Schedule. However, if CMS is required to implement a budget neutrality adjustment, the AAOS believes it should make these adjustments to the conversion factor. The AAOS disagrees with CMS' proposal to reduce all work RVUs by an estimated 10 percent to account for changes as a result of the Five-Year Review.

To limit the increases in Medicare expenditures as mandated by the statute, CMS has applied various adjustments to the Medicare Physician Payment Schedule, including re-scaling the RVUs, creating a separate "work adjuster," or applying a budget neutrality

adjustment to the Medicare conversion factor. CMS has proposed to create a new “work adjuster” to ensure budget neutrality following the implementation of the improved work RVUs from this Five-Year Review of the RBRVS. The AAOS believes that applying budget neutrality to the work RVUs to offset payment increases due to the changes from the current Five-Year Review is inappropriate and strongly urges CMS to instead apply any necessary adjustments to the conversion factor.

From 1993-1995, CMS achieved budget neutrality by uniformly reducing all work relative values across all services. These adjustments to the work relative values caused confusion among the many non-Medicare payers, as well as physician practices, that use the Medicare RBRVS payment system. The constant re-scaling also destabilized and distorted relativity among services and procedures valued through the RUC process and impeded the process of establishing work RVUs for new and revised services and procedures.

In 1997, following the first Five-Year Review of the RBRVS, CMS modified the approach to apply budget neutrality and implemented a separate work adjuster. This approach was short-lived as CMS converted this adjustment to the conversion factor in 1999. CMS later admitted that the creation of the work adjuster was not effective.

“We did not find the work adjuster to be desirable. It added an extra element to the physician fee schedule payment calculation and created confusion and questions among the public who had difficulty using the RVUs to determine a payment amount that matched the amount actually paid by Medicare.” (*Federal Register*, Vol. 68, No. 216, Pg. 63246).

From 1998 to the present, CMS has implemented all budget neutrality adjustments through the Medicare conversion factor. CMS does not explain why it proposes to alter this long utilized method and move backward to an approach that it admitted was inappropriate. In fact, CMS recognizes the current policy on page 37171 of this *Proposed Rule*, stating that “we must make adjustments to the conversion factors (CFs) to preserve budget neutrality.”

The AAOS believes an adjustment to the conversion factor is more appropriate because this change does not affect the relativity among services. Adjusting the RVUs has the potential to adversely affect relativity. If the work RVUs are adjusted as proposed, it will dampen the extensive and time-consuming efforts of the AAOS and all other medical specialty societies that participated in the most recent Five-Year Review process.

The AAOS believes that adjusting the Medicare conversion factor is desirable because it has less impact on other payers who use Medicare RVUs. That is, an adjustment in the Medicare conversion factor will not necessarily affect the payment rates of other payers who use the Medicare RVUs and their own conversion factors. However, any adjustment in the RVUs will impact the payment rates of such payers. The payment rates of payers who peg their rates to a percentage of Medicare will be affected regardless. The AAOS believes that CMS must consider such “ripple effects” as it decides how to adjust for work neutrality.

Furthermore, the AAOS believes an adjustment to the conversion factor is preferable because it recognizes that budget neutrality is mandated for monetary reasons. Thus, the conversion factor, as the monetary multiplier in the Medicare payment formula, is the most appropriate place to adjust for budget neutrality

Finally, applying the work neutrality adjustment to the conversion factor would coincide with CMS' current mission of making the Medicare payment transparent. The AAOS believes changes to the conversion factor are much more transparent because these changes are easily seen as increases or decreases in the multiplier. In contrast, small changes to each work RVU on the Physician Fee Schedule are much harder to notice.

In sum, the AAOS believes that applying budget neutrality to the work RVUs to offset payment increases due to the changes from the current Five-Year Review is inappropriate and strongly urges CMS to instead apply any necessary adjustments to the conversion factor.

### **PRACTICE EXPENSE METHODOLOGY**

The AAOS notes CMS has acknowledged that only 2/3 of the direct expenses are recognized due to budget constraints. This provides direct evidence that Medicare payments are not covering physicians' practice costs. This is an ongoing problem which needs to be addressed and corrected.

CMS has proposed a new practice expense methodology, which is a blend between a "bottom-up" approach and a "top-down" approach. CMS proposes to calculate direct practice expense RVUs using data refined by the RUC and its Practice Expense Review Committee (PERC) (and formerly the Practice Expense Advisory Committee). The application of this direct practice expense data is straightforward. CMS simply sums the expense of the clinical staff, medical supplies, and medical equipment to determine the cost at the individual CPT code level, in a "bottom-up" approach. We believe that this method is more intuitive than the current method and agree with this portion of the proposal.

According to the CMS proposal, the indirect practice expenses are still based on a "top-down" approach, allocating specialty level data from surveys to individual services using work RVUs and direct expenses. The indirect practice expense accounts for up to 60-70% of the total practice expense payment depending upon the specialty. Most specialties' indirect expenses are based upon SMS data. CMS has allowed specialties to obtain and present new data and has either accepted the specialty society recommendations or proposes to do so. The AAOS does not agree that individual societies should be allowed to provide survey data to CMS directly. We believe the most equitable method is to use a uniform data collection process as has been suggested with the Multi-Specialty Physician Practice Expense Survey. We believe that further modifications in the indirect practice expense payments should be delayed until this project is completed. This will allow all medical specialties an equal opportunity to refine their indirect expense data.

Since practice expense accounts for almost half of all payments under the Physician Fee Schedule, the AAOS believes CMS should delay implementation of the new practice expense methodology until the new Multi-Specialty Physician Practice Expense Survey is completed.

However, even with these overarching process concerns, the AAOS believes there are other issues that CMS must resolve prior to the implementation of any practice expense changes. These issues are outlined below.

### **Multi-Specialty Physician Practice Expense Survey**

CMS currently utilizes practice expense data and physician hours from 1995-1999 AMA Socioeconomic Monitoring System (SMS) survey to calculate a “practice expense per hour” estimation for most specialties. A number of specialties have conducted their own supplemental surveys and CMS proposes to use these new data sources in 2007. The RUC has recognized that the SMS data are outdated and that there is a significant need for new survey data. It is imperative that a multi-specialty practice expense survey be conducted to collect recent, reliable and consistent practice expense data for all specialties and health care professionals. The AAOS urges CMS to work with the AMA and other physician and health professional organizations to fund this multi-specialty survey effort and to ensure that the resulting data may be utilized in 2009. The AAOS believes that any changes in the practice expense methodology should be deferred until these uniform data are obtained.

If CMS is unwilling to accept the new SMS data once they are collected, the AAOS believes CMS should extend the deadline to allow specialty societies to conduct supplemental practice expense surveys. At the time when specialty societies were given the opportunity to collect additional practice expense data for supplemental surveys, CMS did not indicate any intent to change its practice expense methodology. However, it is clear the supplemental survey data, whether collected through the SMS project or by individual specialty societies, will be important under the new methodology, and specialty societies should be allowed to participate in the process used to develop inputs for this component of practice expense.

### **Equipment Assumptions – Cost of Capital Assumptions**

CMS currently utilizes an interest rate of 11% in pricing medical equipment. CMS has acknowledged that this rate is too high and requested comments regarding the appropriate interest rate. The RUC recently discussed this issue and agreed that the interest rate currently utilized is too high. The RUC agreed that the interest rate should fluctuate according to market conditions, rather than a fixed rate. The cost of capital is a legitimate expense of a physician’s office and should be linked to prevailing rates. Based on RUC discussion on this issue, the AAOS believes CMS should adjust the 11% cost of capital rate to a market competitive rate.

### **Equipment Assumptions – Equipment Utilization Data**

CMS requested information on how it should reflect the utilization rate, particularly for high cost equipment. Currently, CMS uses a 50% utilization rate for all equipment. The RUC has also recently discussed whether there should be a different rate for all equipment or just for the equipment set by specific cost thresholds. The RUC indicated that the cost of capital may not have a direct linear relationship with equipment utilization. Further, the RUC discussed whether consideration should be given to impacts on rural payment, as utilization rates may not be as high as in urban areas. Based on RUC discussion on this issue, the AAOS believes the existing CMS standard of 50% utilization

rate for all equipment is not an accurate measure. CMS should consider using a higher rate for all equipment, providing an opportunity to specialty societies to provide data to support lower utilization rates, if appropriate, based on clinical or geographic considerations.

#### **Errors in Data – Practice Expense Methodology**

The AAOS notes the following errors in the data used to formulate CMS' proposed practice expense relative values. The AAOS requests that CMS confirm the following errors will be corrected by the January 1, 2007 implementation date.

- The direct practice expense data has been updated to include adjustments derived from the Five Year Review (i.e. adjustments to the number and level of post-operative visits and the associated clinical staff assist physician time).
- The incorporation of the complete RUC physician time file as resubmitted in June 2006.
- The appropriate inflation of the practice expense/hour data to reflect that the AMA's SMS survey data had been deflated to 1995 dollars and not 1997 dollars.

We also note that the application of budget neutrality to the work relative values has been applied in the work RVUs utilized in the indirect practice expense allocation. This is inappropriate and we urge CMS to correct this and use the work RVUs, as approved by the RUC, as the appropriate allocator in the methodology.

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The AAOS appreciates the opportunity to comment on the proposed changes to the practice expense methodology and the proposed mechanisms to maintain budget neutrality due to changes from the Five-Year Review. The AAOS believes it is important for CMS to incorporate comments from medical specialty societies, like the AAOS, and from other groups within the medical community, such as the AMA/Specialty Society RVS Update Committee (RUC) into its decision-making process. These organizations provide CMS with valuable information and data that ultimately improves the Medicare Physician Fee Schedule.

Sincerely,



Richard F. Kyle, MD  
President  
American Association of Orthopaedic Surgeons

**Submitter :** Dr. Colleen R. Carey

**Date:** 08/21/2006

**Organization :** Endocrine Assoc. Spokane/Spokane Osteo. Center

**Category :** Physician

**Issue Areas/Comments**

**GENERAL**

GENERAL

see attachment

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
CENTERS FOR MEDICARE AND MEDICAID SERVICES  
OFFICE OF STRATEGIC OPERATIONS & REGULATORY AFFAIRS

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