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President and Chief Executive Officer

*Via Electronic Submission ([www.regulations.gov](http://www.regulations.gov))*

June 20, 2011

Donald Berwick, M.D., M.P.P.  
Administrator  
Centers for Medicare & Medicaid Services  
ATTN: CMS-1518-P  
7500 Security Blvd.  
Baltimore, MD 21244-8013

Dear Dr. Berwick:

***Re: FY 2012 Inpatient Prospective Payment System Proposed Rule,  
File Code CMS-1518-P***

The Association of American Medical Colleges (AAMC) welcomes this opportunity to comment on the Centers for Medicare & Medicaid Services' (CMS's or the Agency's) proposed rule entitled "*Medicare Program; Proposed Changes to the Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System and Proposed Fiscal Year 2012 Rates*," 76 *Fed. Reg.* 23852 (May 5, 2011). The Association's Council of Teaching Hospitals and Health Systems (COTH) comprises nearly 300 general acute nonfederal major teaching hospitals and health systems that receive Medicare payments under the inpatient prospective payment system (IPPS). The Association also represents all 135 accredited U.S. medical schools; 94 professional and academic societies; 90,000 full-time clinical faculty; and the nation's medical students and residents. Our comments focus on the following areas:

- The Medicare-severity diagnosis-related group (MS-DRG) documentation and coding adjustment;
- The Medicare Spending per Beneficiary Efficiency Measure;
- The Hospital Readmissions Reduction Program;
- The Hospital Acquired Condition Program;
- The Inpatient Quality Reporting Program;
- Excluding Hospice Days from the Indirect Medical Education (IME) Calculation;
- Outlier Payments;
- Add-on Payments for New Services and Technologies;
- Payments for Heart Transplants; and
- Hospital Services Furnished Under Arrangement.

## **THE MS-DRG DOCUMENTATION AND CODING ADJUSTMENT**

Using the same calculations CMS made for federal fiscal year (FY) 2011, the proposed rule would impose a 3.15 percent reduction in the IPPS standardized rate for FY 2012 to account for documentation and coding requirements the Agency asserts are not associated with true increases in patient severity (referred to as “real” case mix growth). This reduction would more than offset any update that hospitals are scheduled to receive pursuant to law, such that the standardized amount will actually be reduced in FY 2012 by 0.55 percent. The AAMC is deeply concerned about such a reduction, particularly given that the aggregate Medicare overall margin for major teaching hospitals has declined dramatically in recent years and actually has been negative over the past several years.

In addition to our overall concern about the adequacy of Medicare payment rates, we also remain very troubled about the methodology CMS uses to arrive at the Agency’s estimated impact of documentation and coding requirements. The results of CMS’s methodology indicated that the entirety of the case mix increases in 2008 and 2009 was due to hospital documentation and coding and not due to increases in patient severity. Last year we, along with the American Hospital Association (AHA) and Federation of American Hospitals, conducted analyses showing that the reduction due to documentation and coding should be much smaller. These analyses were discussed in detail in the AAMC’s comment letter on the FY 2011 inpatient proposed rule. (*See* AAMC letter to Ms. Marilyn Tavenner, June 18, 2010.) This year, we performed additional analyses to respond to issues CMS raised in the IPPS FY 2012 final rule, and our results continue to indicate that a much smaller documentation and coding adjustment is warranted. (We refer CMS to the AHA’s comments for a full discussion of these analyses.)

The three hospital organizations also engaged Harvard Professor Joseph Newhouse, Ph.D., a nationally-recognized expert on health economics and Medicare payments, to review the CMS methodology. Dr. Newhouse’s assessment (a copy of which is attached) concludes that one cannot determine real case mix change from an analysis of claims data, which is the methodology used by CMS. Rather, Dr. Newhouse states that distinguishing real case mix change from case mix change resulting from documentation and coding requires the use of medical records. He also noted that he “cannot interpret what exactly is measured by what CMS terms the documentation and coding effect.”

We believe CMS should examine medical records data to distinguish documentation and coding changes from real case mix change and reduce the documentation and coding offset accordingly. If CMS refuses to use medical records, we urge the Agency to use a methodology that reflects historical trends in case mix index changes. As detailed in the AHA letter, the methodology

employed by the hospital associations indicates a documentation and coding effect that is substantially lower than CMS's results.

### **MEDICARE SPENDING PER BENEFICIARY "EFFICIENCY" MEASURE**

CMS proposes to add a new claims-based measure to the inpatient hospital quality reporting (IQR) program for the FY 2014 payment determination: Medicare Spending per Beneficiary (MSPB). This measure also is proposed for inclusion as a stand-alone measure under the efficiency domain in the Hospital Value-Based Purchasing (VBP) program for FY 2014. As discussed below, we have serious concerns with the inclusion of this measure in either program. Because MSPB is not mandated to be included in FY 2014 under either program, we urge the Agency not to finalize these provisions at this time.

#### **CMS Should Not Implement an MSBP Measure in FY 2014**

At the outset, there is no requirement in the Medicare statute for CMS to include the MSPB measure, or in fact *any* efficiency measure, in the IQR reporting program. While the Affordable Care Act (ACA) does require that the VBP program include efficiency measures, the legislation specifically states that they may be included for FY 2014 or "a subsequent fiscal year." CMS should be prudent in implementing an efficiency measure in the VBP program to ensure that any measure ultimately included is based on sound methodology and adjusts appropriately for geographic and patient characteristics, such as socioeconomic status (SES), given its potential impact on provider payments. If not implemented correctly, providers, such as teaching hospitals, that treat patient populations not accounted for in the methodology could be unfairly penalized, and Medicare beneficiaries could be denied access to high quality care.

The ACA requires CMS to adjust the MSPB measure for factors such as "age, sex, race, severity of illness and *other factors that the Secretary deems appropriate*" (emphasis added) (ACA section 3001). Prior to including the MSPB measure in either the IQR or VBP programs, we urge CMS to use this authority to develop a measure that reflects those factors that contribute to spending differences across areas and populations and that are beyond providers' control.

The AAMC also believes that efficiency measures should not be included in either the IQR or the VBP program unless and until they have been endorsed by the National Quality Forum (NQF). The proposed MSPB measure has not received this endorsement. NQF endorsement is essential, because it ensures that measures have gone through a rigorous evaluation of the supporting evidence base, as well as an assessment of a measure's reliability and validity.

CMS recently awarded contracts to four organizations for the development of an episode grouper software utilizing Medicare claims for physician services, including associated hospital stays.

These contracts will address key issues not addressed in current grouper software, including risk adjusting for physician services and utilizing clinical logic to link episodes together when they occur concurrently in patients. The results of this contract will not be available until December, 2011, when one episode grouper will be selected for further refinement. The AAMC believes CMS will be able to utilize the information from the grouper project to help inform the construction of the MSPB measure. In addition, the Institute of Medicine (IOM) committee, charged by the Secretary of HHS to address the issues of geographic variation and spending will not complete its work until the summer of 2013. The AAMC strongly believes CMS should coordinate its research as well as the results of the IOM committee prior to implementation of the MSPB measure. Waiting for these results will ensure that issues critical to the measure construction, such as appropriate risk-adjustment and the ability to account for patients with multiple co-morbidities have been addressed and resolved.

### **The Proposed MSBP Measure Should be Modified**

If and when CMS ultimately decides to include MSBP as an efficiency measure in either the IQR or the VBP program, or both, we believe additional work must be done to address deficiencies and complexities associated with the proposed measure before it is implemented.

#### The Episode Timeline is Too Long

CMS proposes to determine the MSPB measure based on a patient's episode of care, which CMS defines as the period from three days prior to admission, through hospitalization, and 90 days post-discharge. The AAMC believes the episode timeframe is excessive and the post-discharge period should be reduced.

By setting the post-discharge period at 90 days, the spending amount will contain services beyond the control of the hospital, which may inappropriately penalize providers. The extremely long timeframe could be even more challenging for teaching hospitals, because they serve as major referral centers and treat long-distance patients who often receive their follow-up care in their local communities. Hospitals should only be held financially accountable for a post discharge period over which they have some control or influence in the services provided. Therefore, the AAMC urges CMS to adopt a post-discharge period no longer than seven or fourteen days.

We also are concerned about those patients who are hospitalized multiple times during the episode timeframe for unrelated reasons. These hospitalizations should not be aggregated for purposes of the MSBP measure, as doing so would give an inappropriate picture of the total spending for a particular hospitalization and could result in unfair comparisons of patients who

have the same MS-DRG index admission. While this concern would be lessened by reducing the episode timeframe, it will still exist. We urge CMS in the final rule to clarify how the Agency will address multiple hospitalizations and to specify which hospitalization will be the index discharge and how the other hospitalizations will be treated.

#### Appropriate Risk Adjustment

As discussed above, we believe it is imperative that any risk adjustment methodology reflect socio-economic factors. The proposed MSPB measure does not reflect these measures. The AAMC believes it is essential to adjust for socio-economic factors when comparing spending levels and urges the Secretary not to implement the MSPB measure before fully researching the role of SES factors and the factors associated with health status.

The AAMC also is concerned about CMS's ability to appropriately risk adjust the hospital and physician service payments used to compute the MSPB measure. The proposed rule would adjust the MSPB measure for severity of illness (SOI) based on the hierarchical condition categories (HCCs) for the period 90 days prior to the episode and based on the MS-DRG assignment for the index admission. The AAMC believes the look-back period should be based not only on the primary MS-DRG, but on all associated co-morbidities. As stated previously, complex patients may have overlapping episodes that can impact the spending amounts and that are unrelated to the reason for the index admission. In addition, the AAMC believes believe that the risk adjustment would be strengthened if it were extended beyond 90 days, potentially to one year, to include prior episodes of care which would better reflect a patient's SOI level. There is precedent for utilizing a longer look back period: the HCC risk adjustment model used for the current mortality and readmission measures utilizes a one-year look back period.

We also believe that services received in the timeframe after the hospitalization, particularly physician services, could further describe the complexity of the patient. Accordingly, the AAMC believes some consideration should be given to factoring these services into the risk adjustment methodology.

#### Clarification and Attribution of Transfers

CMS proposes to include patients who are transferred from one hospital to another in the spending calculation. In an episode involving a transfer, however, it is unclear which hospital would be assigned the episode. We ask CMS to clarify this proposal, noting that it is important that any policy CMS adopts does not encourage inappropriate transfers or penalize hospitals that receive appropriate transfers.

#### Exclude Additional Policy and Incentive Payments

We appreciate that the proposed rule excludes indirect medical education (IME) and disproportionate share hospital (DSH) payments from the spending calculation. Likewise, we believe that direct graduate medical education (DGME) and outlier payments should be excluded. We also believe that payments received from Medicare incentive programs, such as hospital VBP and meaningful use (MU) of electronic health records (EHRs), should be excluded from the spending calculation.

#### Post Acute Care Services

The inclusion of post acute care services in the spending calculation could be a complicating factor in comparing spending across hospitals. These services are not uniformly available geographically and availability can vary by type (home health, skilled nursing, etc.). The availability and type of post acute care provider will affect the spending calculation. Further research should be done to understand the impact of including post acute services in the spending calculation.

### **HOSPITAL READMISSIONS REDUCTION PROGRAM**

The ACA requires CMS to implement a readmission payment reduction program that will reduce Medicare payments to those hospitals with higher than expected readmission rates beginning in FY 2013. In the initial year, the payment reduction will be based on the readmission rates for acute myocardial infarction (AMI), heart failure (HF), and pneumonia (PN). While the readmission calculation will be based on these three conditions, the percent payment reduction will be applied to every DRG payment with a cap of one percent in the first year.

#### **Risk Adjustment**

The readmission program would use the risk adjustment that is used in Hospital Compare, which uses a hierarchical regression model. This model adjusts for factors such as age, gender, past medical history, and comorbidities.

The AAMC has serious concerns about this risk adjustment methodology. It is critical that the readmission measures be adequately risk adjusted so that institutions, such as teaching hospitals, that care for complex, fragile, and challenged patient populations are not unfairly penalized. To better understand this issue, the AAMC engaged KNG Health Consulting (KNG) to estimate the impact of variables not included in the proposed readmission risk adjustment model and to determine whether any of these has a statistically significant effect. KNG found that a number of additional variables affect readmission rates. Hospitals with higher proportions of patients who are black, with Medicare supplemental security income, or who result in “outlier” stays have statistically significantly higher readmission rates. In addition, hospitals located in urban areas

have higher readmission rates. If these variables were included in the risk adjustment model, the excess readmission rates for teaching and other hospitals that treat these patients would be lower. We urge CMS to perform its own analyses, and if similar results are obtained, the Agency should modify the risk adjustment model accordingly and expeditiously.

### **Planned Readmissions**

The ACA requires that the measures of readmissions must “have exclusions for readmissions that are unrelated to the prior discharge (such as planned readmissions or transfer to another applicable hospital)” (section 3025). CMS states that the Agency intends to use the NQF-endorsed 30-day all cause readmission measures for AMI, HF, and PN. CMS proposes no changes to the NQF measure specifications, asserting that the measures meet all of the criteria for inclusion in the payment reduction program.

The AAMC does not believe the current measures, as specified, meet the legislative criteria for exclusion of planned or unrelated readmissions. The AMI measure is the only measure that includes exclusions for a small number of procedures which could be deemed planned readmissions. However, there are no exclusions for the heart failure and pneumonia measures. In addition, we believe the current exclusions for the heart attack measure do not account for all planned readmissions. We understand the difficulty CMS faces in determining whether a readmission was planned; therefore, we propose that providers be given the ability to indicate on the Medicare claim form whether a readmission was planned and therefore should be excluded from the payment calculation.

### **Excluded Readmissions**

As the AAMC has previously commented, there are several conditions/disease categories that can result in multiple hospitalizations due to the type of illness. Notably, transplant, end stage renal disease (ESRD), cancer, burn, and trauma patients, as well as patients suffering from psychosis or substance abuse are often hospitalized multiple times within a short timeframe. Under CMS’s proposal, these hospitalizations would be counted as readmissions, even though they are not related to the index admission. Hospitals should not be penalized financially for treating patients with these conditions. Therefore, all readmissions associated with a diagnosis or treatment code for transplants, ESRD, cancer, burn, trauma, or a primary or secondary diagnosis of psychosis or substance abuse should be excluded from the payment program.

### **HOSPITAL-ACQUIRED CONDITION PROGRAM**

The Deficit Reduction Act (DRA) required the Secretary to identify at least two conditions that are: high cost or high volume or both; result in a DRG that has a higher payment when present as

a secondary diagnosis; and could have been reasonably prevented through the application of evidence based guidelines. Any claim submitted that includes one of the selected conditions, that is not present on admission (POA), and is the only complication condition or major complication condition (CC or MCC) listed is no longer reimbursed at the rate of the higher paying DRG.

For FY 2012, CMS is proposing to expand the list of hospital acquired conditions (HAC) included in the non-payment program by adding the following condition: contrast-induced kidney injury. The condition would be identified by discharges with a diagnosis code of Acute Kidney Failure (584.9). The AAMC does not support the inclusion of this condition, as it is not necessarily a preventable occurrence nor is it necessarily a result of receiving a contrast study. Rather, it merely happens to occur within the same admission.

## **INPATIENT QUALITY REPORTING PROGRAM**

The IQR program requires hospitals to submit data on quality performance measures to receive their full market basket update. The penalty for not reporting the full set of quality measures is a reduction of two percentage points in the payment update.

### **Measure Retirement**

CMS proposes to retire eight measures from the hospital IQR program in FY 2012. Seven of these measures are considered “topped out” by CMS. This means that they neither offer an opportunity for further performance improvement by providers nor show meaningful performance distinctions for consumers. The remaining measure, Pneumonia-5c timing of receipt of initial antibiotic following hospital arrival, has been proposed for removal due to inappropriate antibiotic use.

The AAMC supports the immediate removal of the pneumonia measure. In general, we support the removal of “topped out” measures but believe the Agency should proceed cautiously to ensure that both quality improvement and provider administrative burden are factored into these decisions. More broadly, we continue to urge the Agency to identify a limited set of core measures that truly drive improvement in the quality of care provided to Medicare beneficiaries.

## **Proposed Measures for FY 2014 Payment Determination**

CMS proposes four additional measures for the FY 2014 payment determination. The measures address hospital-acquired infections, registry participation, and efficiency.

### Participation in Systematic Database for General Surgery

CMS proposes to add a structural measure for the FY 2014 payment determination that requires hospitals to report on whether they participate in a clinical registry for general surgery. The AAMC has previously commented on our lack of support for structural measures based on registry participation being included in the IQR program. In general, we support the use of registries, as many of our members participate in or have developed their own clinical registries. Registries allow providers to manage specific patient populations effectively and provide the ability to measure provider performance and patient outcomes. However, participating in a registry in of itself is not a proxy for quality care.

Public reporting of registry participation may lead to a false assumption by consumers and patients that the quality of a hospital can be judged on whether or not it participates in a particular condition-specific or provider of care registry. In addition, we are concerned that these measures would implicitly encourage hospitals to participate in external registries with costly participation fees. Therefore, we do not support inclusion of this structural measure in the IQR program.

### Hospital-Acquired Infections

CMS proposes to include two additional hospital-acquired infection measures for the FY 2014 payment determination that would be collected via the National Healthcare Safety Network (NHSN). The proposed measures are: Central Line Insertion Practices (CLIP) and Catheter Associated Urinary Tract Infection (CAUTI).

#### *Central Line Insertion Practices (CLIP)*

CMS proposes to include the CLIP measure that would measure adherence to evidence-based practices during the insertion of a central line. Through a joint program between AAMC and the University Health System Consortium (UHC), Better Practices for Better Care, AAMC member hospitals have committed to reducing central line associated blood stream infections (CLABSI). Participating teaching hospitals have committed to measuring, reducing, and publicly reporting CLABSI rates.

The IQR program currently requires hospitals to submit CLABSI data through the National Healthcare Safety Network (NHSN) for the annual payment determination for ultimate reporting on Hospital Compare. The CLABSI measure is a well-constructed, valid, and reliable outcome measure, and therefore we believe it is not necessary to introduce a process measure on central line insertion.

#### *Catheter-Associated Urinary Tract Infection*

This measure would assess the rates of catheter-associated urinary tract infections (CAUTI). The AAMC believes measuring rates of CAUTI is an important aspect of managing hospital-acquired infections. The proposed measure is a well-constructed and valid measure and we support its inclusion in the IQR program.

### **Proposed Measures for FY 2015 Payment Determination**

CMS proposes an additional 17 measures for the FY 2015 payment determination in the areas of hospital acquired infections, stroke, and Venous Thromboembolism (VTE).

#### Hospital-Associated Infections

CMS proposes to add three measures related to hospital-associated infections in the IQR program for FY 2015. The proposed measures are: healthcare personnel influenza vaccination rates, methicillin-resistant staphylococcus aureus (MRSA) bacteremia rates, and clostridium difficile (C-diff) standardized infection ratio. All of the proposed measures will be collected through the NHSN.

#### *Healthcare Personnel Influenza Vaccination Rates*

The AAMC supports efforts to increase influenza vaccination rates among health care personnel, because they are at significantly greater risk for acquiring and transmitting the influenza virus. However, the proposed measure, as specified, will be extremely burdensome and difficult to report. The current specifications require hospitals to report detailed information on every employee through the NHSN rather than reporting the overall percentage of vaccination rates. Collecting and reporting this information requires the involvement of hospital departments and other organizations that are not typically involved in hospital quality data reporting, such as the medical staff, residents, and human resources departments. The proposed measure would also require reporting of vaccinations obtained outside of the hospital. Such a process would involve transferring data that is currently based on different and inconsistent systems.

The proposed rule also is unclear whether hospitals are responsible for ensuring that their vendors are complying with the vaccination requirement. At this point, there are no defined methods for monitoring their compliance. Would hospitals also be required to offer the vaccine to their vendors if the vendors do not already provide it? Are there exclusions for manufacturing shortages or increased consumer demand for the vaccination, which may lead to workers not being inoculated?

#### *MRSA and C-Difficile*

The AAMC agrees with the need to appropriately monitor and minimize the occurrence of MRSA and C-Difficile. However, these measures have not been NQF-endorsed and, in our opinion, still require further refinement before being included in a national reporting program. Therefore, the AAMC does not support the inclusion of these measures at this time.

#### *Stroke and VTE Measure Sets*

CMS proposes to include the stroke and VTE measure sets for the FY 2015 payment determination. The AAMC believes these are important measures and has previously supported their inclusion in the IQR program. The measures have been endorsed by the NQF and also are supported by the Hospital Quality Alliance (HQA).

However, we have concerns regarding the inclusion of these measure sets, given they are already included in the Medicare EHR incentive program. The Medicare incentive programs should be aligned so that performance measures are not required in two different programs via two different data collection methods. Hospitals should be given the option to submit the stroke and VTE measures through the EHR incentive program and by doing so automatically receive credit for these measures for the IQR program.

Because not all hospitals will be able to collect and submit data through electronic health records, there will be a discrepancy between those measures reported via EHRs and those that are manually abstracted. As a result, there may be variations in performance based on the mechanism for collecting the data. CMS should conduct validation studies to determine how best to accommodate the differences in reporting.

#### **Data Correction Period**

CMS proposes to compress the data submission timeline to accommodate a data correction period for the FY 2014 payment determination. The AAMC fully supports the inclusion of a data correction period in the IQR program. However, we are concerned that some hospitals may have difficulty meeting the proposed deadlines for data, population, and sample size

submissions. Therefore, we request that CMS extend the deadlines by two additional weeks beyond the proposed deadline of 104 days for data submission and three months for population and sample size submissions. The AAMC also asks CMS to adopt a timeframe for the corresponding correction period of no less than one month.

While CMS states the Agency will propose the correction period in future rulemaking, the AAMC requests that additional clarifying details on the program be included in the FY 2012 final rule.

### **Health Information Technology**

Many hospitals are transitioning to electronic health record systems or are updating legacy systems. During this transition period, it is possible that hospitals' quality scores may appear lower due to technical issues, which could affect these hospitals' abilities to receive VBP incentive payments. The AAMC urges CMS to consider an appeals process in the VBP program for hospitals that report significantly lower performance scores that may be attributed to technical issues associated with the implementation or upgrade of their EHR system.

### **EXCLUDING HOSPICE BED DAYS FROM THE IME CALCULATION**

A hospital's Medicare IME payment for a particular year is based in part on the hospital's intern and resident-to-bed (IRB) ratio, capped, except in certain circumstances, at the prior year's level. *See* 42 C.F.R. § 412.105(a)(1)(i). The number of beds in the denominator of the IRB ratio consists of available bed days in the cost reporting period divided by the number of days in the cost reporting period.

CMS proposes to exclude inpatient hospice service bed days from the bed day count in the IME adjustment, because hospice services that are provided in an inpatient setting are not acute care services payable under the IPPS, and beds used for inpatient hospice services are not available to be used for IPPS-level services.

Because the change CMS proposes regarding the exclusion of hospice days is an Agency policy decision, the AAMC encourages CMS not to apply the IRB ratio cap with respect to the proposed removal of hospice bed days. Instead, the AAMC urges CMS to permit hospitals to exclude these inpatient hospice days from their prior year's IRB ratio for purposes of applying that ratio as the cap on the hospital's current year IRB ratio.

CMS currently makes several exceptions to the IRB ratio cap for Medicare GME affiliated groups, emergency Medicare GME affiliated groups, new programs, and for hospitals training displaced residents from closed hospitals or closed programs. *See* 42 C.F.R. § 412.105(a)(1)(ii)-

(iv). Under each of these exceptions, the IRB cap is waived so that the hospital's current year payment reflects its changed circumstances. Similarly, if CMS finalizes the Agency's proposal to exclude hospice days from the IRB ratio for purposes of the IME adjustment, hospitals should be permitted to receive the benefit of this policy change immediately rather than being required to wait a year.

## **OUTLIER PAYMENTS**

Under the Medicare IPPS, if the costs of a particular Medicare case exceed the relevant MS-DRG operating and capital payment (including any disproportionate share hospital (DSH), indirect medical education (IME), or new technology add-on payments) plus an outlier threshold, the hospital will receive an outlier payment. This payment equals 80 percent of the case's costs above the threshold calculation.

The outlier fixed-loss cost threshold is set at a level that is intended to result in outlier payments that are between 5 and 6 percent of total IPPS payments. Outlier payments are budget neutral. Each year the Agency finances the outlier payment pool by reducing the inpatient standardized amount by 5.1 percent and estimating a cost threshold that should result in outlier payments that equal 5.1 percent.

The proposed rule would set the fixed-loss cost threshold for outlier payments to be equal to a case's DRG payment plus any IME and DSH payments, and any additional payments for new technologies, plus \$23,375.

The AAMC is extremely concerned about CMS's consistent overestimation of outlier payments. In four out of the past five and seven out of the past ten federal fiscal years, CMS has made outlier payments in an amount *less* than the 5.1 percent target. Because CMS reduces the standardized amount by 5.1 percent and does not make retroactive adjustments to outlier payments when outlier payments total less than 5.1 percent of total DRG payments, providers consistently have been shortchanged by CMS's incorrect estimations. Given the ongoing and consistent nature of this problem, the AAMC expresses concern that there is a fundamental flaw in CMS's outlier estimation calculations and encourages the Agency to work to discover the source of the problem and further refine the outlier payment methodology to improve annual outlier estimates.

## **ADD-ON PAYMENTS FOR NEW SERVICES AND TECHNOLOGIES**

Each year, CMS considers new technologies for an add-on payment, if the Agency finds the technology to meet the established criteria for newness and deems the DRG prospective payment

otherwise applicable to the discharge inadequate. For FY 2012, CMS proposes that three new technologies will begin to receive add-on payments: AxiaLIF 2L+ System, Champion HF Monitoring System, and PerfectCLEAN with Micrillon. CMS also proposes that one new technology from FY 2011 will continue to receive its add-on payment: Auto Laser Interstitial Thermal Therapy System. The AAMC believes CMS should consider more new technologies each year for add-on payments, so as to best ensure accurate payment for new devices and services. These new devices and services generally are used first in teaching hospitals. Because the Medicare inpatient methodology does not recognize higher costs associated with these services, the add-on payments represent an important revenue source for teaching hospitals and prevent these institutions from being penalized for ensuring that Medicare beneficiaries receive the best care available.

#### **PAYMENTS FOR HEART TRANSPLANTS**

The AAMC is concerned by the 8.7 percent reduction in MS-DRG weight for a heart transplant or implant heart assist device (MS-DRG 1) with a major complication/comorbidity (MCC), resulting in a payment of \$134,766. These very costly transplants are performed almost always, if not exclusively, in teaching hospitals, and it is critical that any payment reductions are made thoughtfully so as not to jeopardize beneficiary access to this important procedure. The AAMC urges the Secretary to maintain current payment levels for heart transplants and to perform analyses to determine whether separating this MS-DRG into multiple MS-DRGs would better reflect the costs associated with the various different types of heart transplants.

#### **HOSPITAL SERVICES FURNISHED UNDER ARRANGEMENTS**

CMS proposes to amend section 2118 of the Provider Reimbursement Manual to state that routine services provided outside the hospital will be considered to be provided under arrangement and not provided by the hospital. CMS believes some providers may have incorrectly interpreted the current instructions to permit even routine services consisting of bed and board, or nursing services and other related services, use of hospital facilities, and medical social services to be provided under arrangements.

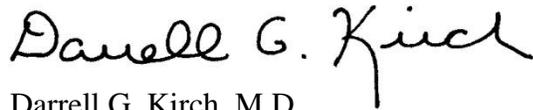
The AAMC is concerned by the lack of clarity in CMS's proposal as to the reasons for the Agency's proposed policy change. CMS does not offer a policy rationale for the proposed change or explain the types of circumstances that are causing the Agency to be concerned. The AAMC urges CMS not to finalize this proposal but instead to provide additional information as to why this change is needed so that the public may better comment on this proposal in a later rulemaking.

Donald Berwick, M.D., M.P.P.  
June 20, 2011  
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## CONCLUSION

Thank you for the opportunity to present our views. We would be happy to work with CMS on any of the issues discussed above or other topics that involve the academic health center community. If you have questions regarding our comments, please feel free to contact Karen Fisher, J.D., at 202-862-6140 or at [kfisher@aamc.org](mailto:kfisher@aamc.org).

Sincerely,

A handwritten signature in black ink that reads "Darrell G. Kirch". The signature is written in a cursive style with a large, prominent 'K'.

Darrell G. Kirch, M.D.  
President and CEO

cc: Joanne Conroy, M.D., AAMC  
Karen Fisher, J.D., AAMC

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April 11, 2011

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Dear Caroline, Karen and Steve,

I have reviewed the materials the American Hospital Association (AHA) sent me pertaining to the CMS estimates of documentation and coding effects and true case mix change.<sup>1</sup> I have three principal reactions:

1. Use of claims data, which CMS employs in its calculations, inherently combines both true case mix change and documentation and coding change. The pure or “true” case mix change cannot be determined from claims data alone.
2. What can be determined from claims data alone is an estimate of the *combined* effect of documentation and coding and true change, but the size of the estimated combined effect is

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<sup>1</sup> These materials include: the relevant pages from the May 4, 2010 Inpatient Prospective Payment System (IPPS) Proposed Rule on these estimates; the relevant pages from the August 16, 2010 Final Rule; the relevant pages of the June 11, 2010 comment letter by AHA on the Proposed Rule; the May 27, 2010 comment letter by MedPAC on the Proposed Rule; the July 20, 2010 letter from the AHA, the FAH and the AAMC to Donald M. Berwick, M.D. which referenced two independent studies, one by The Moran Company and one by Partha Deb, Ph.D.; the August 6, 2010 letter from Donald Berwick, M.D. to Rich Umbdenstock in response to the letter sent to him; and a table produced by the Moran Company that provides CMLs for various combinations of the FY 2007 and 2009 claims and groupers.

sensitive to whether one uses initial or final year groupers in the calculation. There is an exact correspondence between this problem and standard price or quantity index calculations that are done by the Bureau of Labor Statistics and the Bureau of Economic Analysis. I believe looking at the problem as one of calculating index numbers allows one to calculate values that one can interpret as upper and lower bounds on the sum of the documentation and coding and true case mix change. I describe this in a Technical Appendix to this letter. I show there the upper and lower bounds on the sum of true case mix change and documentation and coding that the data supplied me yield.

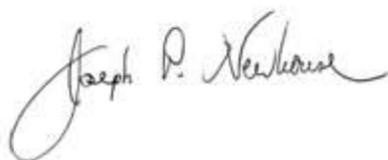
3. The values that I interpret as upper and lower bounds on the sum of documentation and coding change and true case mix change are not, however, what CMS has calculated. Moreover, I cannot interpret what exactly is measured by what CMS terms the documentation and coding effect.

I briefly elaborate on these points in the remaining body of this letter.

The ideal method for distinguishing documentation and coding effects from true case mix change effects is as follows. One pulls a random sample of hospital charts from different years and has coders code them blind to the year of the chart. Since the coders are presumptively using one standard (the current standard) of coding, this method holds coding practices constant and indicates the amount of true case mix change. This method was employed two decades ago in work at RAND that was sponsored by the Health Care Financing Administration (HCFA) and the Prospective Payment Assessment Commission (ProPAC). I was part of this work, which was documented in Carter, et al., "How Much Change in the Case Mix Index is DRG Creep?" *Journal of Health Economics*, 9:4, 1990, 411-28. The resulting estimate was subsequently used for several years by ProPAC to estimate documentation and coding effects. This sketch of the ideal method should clarify that the problem with the method that CMS has used is that one cannot get an estimate of case mix change that is not combined with documentation and coding change from claims data alone. They are inherently confounded in claims data.

There is an exact analogy between this problem and the calculation of standard price and quantity indices by the Bureau of Labor Statistics and the Bureau of Economic Analysis as described in the Technical Appendix. Using index number theory, one can show that claims data can yield upper and lower bounds on the sum of true case mix change and documentation and coding change. These bounds, however, are not what CMS has calculated. Moreover, using the index number framework I cannot interpret the value CMS has calculated for documentation and coding change.

Regards,

A handwritten signature in cursive script that reads "Joseph P. Newhouse". The signature is written in black ink and is positioned above the typed name.

Joseph P. Newhouse

## Technical Appendix

Because consumers substitute away from goods whose relative price has risen, it is well known in the economics literature that the use of initial period quantity weights, a Laspeyres index, leads to higher values of price index changes than use of final period quantity weights, a Paasche index. For the same reason quantity indices (e.g., real GDP growth) are biased up using initial period price weights and biased down using final period price weights. The classic description of these biases is Ragnar Frisch, "Annual Survey of General Economic Theory: The Problem of Index Numbers," *Econometrica*, 4, January 1936, pp. 1-38, but a more accessible modern reference is Jack E. Triplett, "Economic Theory and BEA's Alternative Price and Quantity Indices," *Survey of Current Business*, April 1992, pp. 49-52, which is available at [http://fraser.stlouisfed.org/publications/SCB/1992/download/17281/SCB\\_041992.pdf](http://fraser.stlouisfed.org/publications/SCB/1992/download/17281/SCB_041992.pdf). Index number theory is also covered in any textbook dealing with economic measurement.

In the present problem the relative case weights in a given grouper are like relative prices in a price index calculation (in fact they *are* relative prices for the different MS-DRGs) and the quantities of discharges in various MS-DRGs are like the quantities of goods in the price index calculation. Unlike consumers, whose behavioral response to a rise in relative prices is to buy *less* of those goods whose relative prices have risen, hospitals are assumed to be *more* likely to enter codes whose weights (relative prices) have risen. This results in a sign change in the bias from the price index case, meaning that the use of the weights in the initial period grouper (analogous to initial period price weights) leads to an understatement of – meaning it is a lower bound on – the amount of documentation and coding plus true case mix change and use of weights from the final period grouper leads to an overstatement, meaning it is an upper bound on the amount of documentation and coding plus true case mix change.

If one looks at this problem in index number terms, both  $p$  (the weights in the grouper) and  $q$  (documentation and coding + true CMI change) have changed from 2007 to 2009. A traditional index number method to calculate a change in  $q$  (documentation and coding + true CMI) is to hold  $p$  constant using each of the groupers in turn. Because of the behavioral change (coding change), the result is sensitive to which grouper one uses. In the data that the AHA supplied me (Table 1), the value of the CMI obtained by running the 2009 claims through the 2007 grouper is 1.5046 (call this A). The CMI obtained by running the 2007 claims through the same 2007 grouper is 1.5149 (call this B), that obtained by running the 2009 claims through the 2009 grouper is 1.5871 (call this C) and the CMI obtained by running the 2007 claims through the same 2009 grouper is 1.5187 (call this D). Since I do not have the individual CMIs used by CMS in its calculations, I am using these as estimates of the values CMS used. The change in the value of the CMI using the 2007 grouper on the 2009 and 2007 claims, a Laspeyres quantity index, is  $A/B = 1.5046/1.5149 = 0.993$ , meaning that the lower bound on true CMI change plus any documentation and coding is -0.7 percent. If, instead of the 2007 grouper, one uses the 2009 grouper on the 2009 and 2007 claims, the value is  $C/D = 1.5871/1.5187 = 1.045$ , a Paasche quantity index which gives an upper bound on the sum of the two effects. (I reiterate that the biases are reversed from the standard index number context.)

CMS appears to have used the four numbers I used in the previous paragraph, but has used them in a different way to reach values I cannot interpret. CMS appears to have calculated  $C/A$ , for which it got a value of 1.056, which in index number terms is a price index using final period quantities (i.e., a Paasche price index). CMS calls this the sum of documentation and coding and a measurement effect. Using the Paasche price index interpretation, I interpret the resulting value for  $C/A$  as an upper bound on a grouper effect or measurement effect. CMS then calculates  $D/B$ , for which it obtains a value of 1.0019. In index number terms this is a price index using initial period quantities (i.e., a Laspeyres price index). Moreover, CMS seems to have gone on to calculate  $[(C/A)/(D/B)]$ , for which it obtains a value of 1.054, and calls this a documentation and coding effect.

In index number terms, CMS has divided a Paasche price index by a Laspeyres price index and called the result a documentation and coding effect. I simply cannot interpret the ratio of a Paasche and Laspeyres price index.

**Table 1**  
**Calculation of the Upper and Lower Bounds of Documentation and Coding Plus True Case Mix Change**

	CMIs from Hospital Groups <sup>2</sup>	Interpretation
<b>A</b> CMI: FY 2009 Claims with FY 2007 Grouper	1.5046	
<b>B</b> CMI: FY 2007 Claims with FY 2007 Grouper	1.5149	
<b>A/B</b>	.993	Lower bound on documentation and coding plus true case mix change – Laspeyres quantity index
<b>C</b> CMI: FY 2009 Claims with FY 2009 Grouper	1.5871	
<b>D</b> CMI: FY 2007 Claims with FY 2009 Grouper	1.5187	
<b>C/D</b>	1.045	Upper bound on documentation and coding plus true case mix change – Paasche quantity index

**Table 2**  
**CMS Calculations and Interpretation**

	CMS Calculations	Interpretation
<b>C</b> CMI: FY 2009 Claims with FY 2009 Grouper		
<b>A</b> CMI: FY 2009 Claims with FY 2007 Grouper		
<b>C/A</b>	1.056	Upper bound on grouper effect or measurement effect – Paasche price index
<b>D</b> CMI: FY 2007 Claims with FY 2009 Grouper		
<b>B</b> CMI: FY 2007 Claims with FY 2007 Grouper		
<b>D/B</b>	1.0019	Lower bound on grouper effect or measurement effect – Laspeyres price index
<b>(C/A)/(D/B)</b>	1.054	Not interpretable under index number theory

<sup>2</sup> The CMIs provided to me by the hospital groups were produced by The Moran Company and attempt to replicate CMS' CMI calculations as closely as possible based on the proposed and final FY 2011 inpatient PPS rules and associated data.