



**American Hospital
Association**

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Kate Goodrich, M.D.
Acting Director
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Center for Clinical Standards and Quality
Centers for Medicare & Medicaid Services
7500 Security Blvd
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RE: Call for Public Comment, Acute Myocardial Infarction 30-day Episode-of-Care Payment Measure

Dear Dr. Goodrich:

On behalf of our more than 5,000 member hospitals, health systems and other health care organizations, and our 42,000 individual members, the American Hospital Association (AHA) appreciates the opportunity to comment on the acute myocardial infarction (AMI) 30-day episode-of-care payment measure that is being developed by the Yale-New Haven Health Systems Corporation/Center for Outcomes Research and Evaluation (YNHHSC/CORE). Given that the proposed measure is substantially different from the cost and efficiency measures currently used in the Centers for Medicare & Medicaid Services' (CMS) quality measurement and reporting programs, we commend CMS for soliciting input from the field in advance of completing measure testing, and before submitting it for endorsement review by the National Quality Forum.

In general, the proposed measure calculates total payments for Medicare fee-for-service patients with a primary discharge diagnosis of AMI from the date of the initial hospital admission through 30 days post-admission. Payments for the initial hospitalization are included in the measure, as are payments for a broad range of subsequent care, including inpatient, outpatient, physician, laboratory and post-acute care services. To facilitate the comparison of measure performance results across entities, the measure developer proposes a risk adjustment methodology to account for patient characteristics, such as age, prior procedures and co-morbid conditions, which influence resource use, and therefore payment.

This measure aligns with CMS's continued interest in reimbursement methodologies, often referred to as "bundled payments," in which services for acute-care hospitals, physicians, post-



acute facilities, and others are combined into a single payment covering a patient's care for a specified time period. **The AHA recognizes the potential of bundled payments to enhance the "value" of health care, that is, lower cost with equal or better outcomes.** Bundled payments may incentivize providers to enhance the coordination of care across different settings and to select evidence-based care processes that are less costly. In the context of bundled payments, the proposed measure provides a potential mechanism for measuring performance on costs. When coupled with information on the quality of care, the AMI episode payment measure also may help to inform considerations of value.

However, the AHA urges CMS to carefully consider the types of organizations it assesses with the measure in future public reporting and accountability programs. The AMI measure reflects the care provided by many different parts of the health care delivery system, and like other measures that reflect the actions of many, attributing the results solely to one part of the care system may be unfair. **Further, while we understand that health care costs are a national concern that must be addressed, we caution that such measures should not be used to push only toward the lowest possible cost.** In some cases, that low cost may be achieved when the patient does not get needed services. Instead, we support the development of measures that promote better value.

To help inform the remainder of the measure development process, as well as any future CMS quality reporting programs using this measure, we have outlined a number of specific recommendations below and then discuss each point in further detail.

In applying the measures in public reporting programs:

- **CMS should not use the proposed measure to exclusively assess the performance of acute-care hospitals. Instead, CMS should use the measure with organizations that have characteristics allowing them to manage a bundled payment.** Given the relative novelty of such organizations, CMS also should pilot the reporting of the measure in advance of a broader rollout. For example, CMS could consider testing the measure with organizations participating in the Bundled Payment for Care Improvement (BCPI) managed by the CMS Center for Medicare and Medicaid Innovation (CMMI).
- **The AHA generally supports the measure's 30-day episode length. However, CMS should consider longer time periods in future applications.** AMI patients can incur significant expenses beyond 30 days after admission.
- **The measure developer and CMS should ensure the measure uses an adequate minimum sample size so that the measure generates reliable performance results.** We strongly urge the measure developer to include a minimum sample size analysis in its measure testing plan, or for CMS to conduct such an analysis.

The AHA also recommends the following changes to the measure technical specifications:

- **The measure developer should consider excluding patients with unique clinical needs who are likely to incur disproportionately different costs in a bundled payment arrangement**, including end-stage renal disease (ERSD), hospice, cancer and HIV/AIDS patients.
- **The measure developer should consider including Medicare Part D payments in the measure.** Prescription drugs are often an integral part of post-acute patient management. Including payments for prescription drugs may help provide a more complete picture of the costs of caring for a patient.
- **The risk adjustment model should account for patients dually eligible for Medicare and Medicaid. The model also should consider how to account for potential complications not caused by hospital care.** These changes would enhance the model's ability to identify true differences in performance across entities.
- **The measure should exclude all transfer patients.** The current measure specifications assign payments to the first admitting hospital, leading to an inappropriate attribution of costs.

APPLICATION OF THE AMI EPISODE OF CARE MEASURE IN PUBLIC REPORTING PROGRAMS

Selection of Measured Organization

Quality measurement and reporting programs can help drive improvement in the health care delivery system, but the measures selected should be appropriate to the entity being measured. That is, in order to improve performance on a given measure, any health care organization must be able to reasonably control the factors (e.g., internal policies and processes, personnel, material resources, etc.) that contribute to measure performance results. This guiding principle enables the assignment of accountability to the correct entity, and it facilitates a fair assessment of the performance of that entity by patients, payers and policymakers.

While we agree that one organization should be accountable for the episode of care payment measure, acute-care hospitals are not always that entity. The assignment of accountability for the AMI measure is complex given the number of distinct entities whose services are included in the payment. An analysis of bundled payment issues commissioned by the AHA and the Association of American Medical Colleges (AAMC) demonstrates that on average, AMI patients discharged alive have nearly three “sequence stops” in their care pathway during a 30-day episode of care (Figure 1).¹ These sequence stops encompass a broad range of services, from inpatient care to inpatient rehabilitation facilities, to outpatient care provided by physicians. Each of those services has its own average Medicare payment (Figure 2), and can be

¹American Hospital Association and Association of American Medical Colleges, 2012. *Medicare Payment Bundling: Insights from Claims Data and Policy Implications*. The report and summary can be accessed at <http://www.aha.org/research/reports/12bundling.shtml>.

combined in an array of possible permutations. Figure 3 shows the five most common pathways of sequence stops for AMI patients discharged alive from non-teaching hospitals, along with the average costs of those pathways. These five pathways account for 56 percent of the possible sequence stops for AMI patients, and 43 percent of total Medicare payments. This leaves a significant number of patients who may follow a different path.

Figure 1: Total Medicare Paid, Average Medicare Paid, and Average Sequence Stops for AMI Patients Discharged Alive

Number of episodes	Total Medicare Paid	Average Medicare Paid	Average Sequence Stops	Average Facility-based Sequence Stops	Average Ambulatory-based Sequence Stops
383,720	\$6,694,001,200	\$17,445	2.96	1.87	1.09
KEY					
Facility-based Sequence Stops			Ambulatory-Based Sequence Stops		
Index hospital Stay			Community (includes Physician and Outpatient)		
Home Health Agency			Emergency Room		
Inpatient Rehabilitation Facility			Outpatient Therapy		
Long-Term Care Facility			Hospice		
Skilled Nursing Facility			Other		

Source: the AHA and AAMC commissioned study of bundled payments by Dobson | Davanzo using a 5% sample of Medicare claims data from 2007-2009. Includes MS-DRGs 280, 281, 282. Indirect graduate medical education (IME), disproportionate share hospital (DSH), copay, capital and other third-party payments have been removed. All episodes have been extrapolated to reflect the universe of Medicare beneficiaries. Payments have been standardized to 2009 dollars and to account for the wage index.

Figure 2: Distribution of Sequence Stops for 30-day Episode of Care for AMI Patients Discharged Alive

Sequence Stop	Number of episodes with sequence stop	Percentage of episodes including payment for sequence stop	Average Medicare Payment in Sequence Stop
Index Hospital Stay	383,720	100%	\$6,735
Physician	380,580	99.2%	\$2,587
Skilled Nursing Facility	97,980	25.5%	\$6,954
Home Health Agency	88,560	23.1%	\$1,376
Inpatient Rehabilitation Facility	7,680	2.0%	\$15,175
Long-Term Care Hospital	3,980	1.0%	\$22,996
Other Services**	217,540	56.7%	\$1,234
Overall 30-day Episode	383,720	N/A	\$17,445
**Other includes ER, Hospice, Outpatient Therapy, Other Outpatient, and Outpatient			

Source: the AHA and AAMC commissioned study of bundled payments by Dobson | Davanzo using a 5% sample of Medicare claims data from 2007-2009. Includes MS-DRGs 280, 281, 282. IME, DSH, copay, capital, and other third-party payments have been removed. All episodes have been extrapolated to reflect the universe of Medicare beneficiaries. Payments have been standardized to 2009 dollars and to account for the wage index.

Figure 3: Five Most Common Sequence Stop Pathways for AMI Patients Discharged Alive in Non-Teaching Hospitals during a 30-day Episode of Care

Pathway Sequence	Number of Episodes	Total Medicare Paid	Percent of Episodes	Percent of Total Medicare Paid	Average Medicare Paid
A-C	103,860	\$1,147,621,140	30.9%	19.5%	\$11,050
A-S	30,440	\$618,437,399	9.1%	10.5%	\$20,317
A-H-C	27,560	\$411,858,520	8.2%	7.0%	\$14,944
A	17,780	\$288,122,240	5.3%	4.9%	\$16,405
A-T	8,960	\$116,018,320	2.7%	2.0%	\$12,948
Totals	188,600	1,434,436,479	56.2%	43.9%	N/A
KEY					
Facility-Based Sequence Stops A=Index hospital stay or readmission H=Home Health Agency I=Inpatient Rehabilitation Facility L=Long-Term Care Facility S=Skilled Nursing Facility			Ambulatory-Based Sequence Stops C=Community (includes Physician and Outpatient) E=Emergency Room P=Outpatient Therapy T=Hospice Z=Other		

Source: the AHA and AAMC commissioned study of bundled payments by Dobson | Davanzo using a 5% sample of Medicare claims data from 2007-2009. Includes MS-DRGs 280, 281, 282. IME, DSH, copay, capital, and other third-party payments have been removed. All episodes have been extrapolated to reflect the universe of Medicare beneficiaries. Payments have been standardized to 2009 dollars and to account for the wage index.

Given how many services are included within a given episode of care, providers and CMS must think differently about how accountability for measure performance is assigned. Not all hospitals and health systems currently have the ability to manage a bundled payment and to be held accountable for an episode of care payment measure. **Thus, the AHA recommends that CMS use the measure for accountability only for organizations with characteristics which allow them to adequately manage a bundled payment.** As outlined in the AHA/AAMC bundled payment analysis², it is critical that organizations have the appropriate structure and processes to manage, and reasonably be measured on, bundled payments. Those characteristics include many of the following:

- There is a single entity – composed, at a minimum, of hospitals, affiliated physicians and post-acute care providers – designated to accept the financial responsibility for the bundle.
- The organization has the ability to manage and share risk across the multiple types of service providers. Under a bundled payment, the overall financial risk shifts from individual entities to a single entity. One type of risk sharing arrangement is referred to as “internal discounting.” To achieve a cost savings target in a bundled payment arrangement, the organization must be able to allocate differing cost reduction targets, or “discounts,” across multiple entities.

² *Ibid.*

- The organization has adequate administrative and governance processes to manage a payment bundle. This includes mechanisms to collect and share data across multiple entities, and a governance structure that allows for decision-making to impact multiple care settings and services.

Given that the payment methodology is new, and that public reporting efforts have not yet been field tested, **the AHA urges CMS to pilot test the measure with organizations that are actively engaged in bundled payments programs.** For example, organizations participating in the CMMI's BPCI initiative could be included in a pilot test. This trial run would allow organizations and the public to gain experience with the measure, and provide CMS the opportunity to monitor any unintended consequences.

Length of the Episode of Care

The selection of the length of an episode of care is complex and driven by a number of factors. In general, the length of a care episode in a bundled payment arrangement should be long enough to account for patients who require post-acute care services, but short enough that the provider can focus on the part of the episode that most contributes to costs. The 30-day episode that CMS has selected is likely to encompass all of the initial inpatient hospital stay, as well as some post-acute services. It also would include any inpatient readmissions within that time period. However, AMI patients may still incur significant costs beyond 30 days from the initial inpatient admission. As Figure 4 demonstrates, a 60-day AMI episode has 23 percent higher payments than a 30-day episode. A 90-day episode of care has 13 percent higher payments than a 60-day episode, and 38 percent higher payments than a 30-day episode.

Figure 4: Average Medicare Paid for AMI Episodes Using 30-, 60- and 90-day Episodes

30-day Episode	60-day Episode		90-Day Episode		
	Average Paid	Percent Change vs. 30-day	Average Paid	Percent change vs. 60-day	Percent change vs. 30-day
\$17,445	\$21,422	23%	\$24,101	13%	38%

Source: the AHA and AAMC commissioned study of bundled payments by Dobson | Davanzo using a 5% sample of Medicare claims data from 2007-2009. Includes MS-DRGs 280, 281, 282. IME, DSH, copay, capital, and other third-party payments have been removed. All episodes have been extrapolated to reflect the universe of Medicare beneficiaries. Payments have been standardized to 2009 dollars and to account for the wage index.

Thus, while a 30-day episode length is a reasonable place to begin measurement, CMS also should consider longer episode lengths in subsequent applications. The services needed to assist with the successful recovery of an AMI patient often extend well beyond the 30 days after a hospital admission. Measuring payments over a longer care episode may allow providers to identify other ways to optimize both care processes and costs over a longer term. In CMMI's current BPCI initiative, for example, many participating organizations are using AMI care episodes of 90 days post index admission. We urge CMS to carefully monitor these initiatives. If the results from the BPCI initiative show that organizations can more successfully manage an AMI payment bundle over a longer episode length, the measure should be adjusted accordingly.

Minimum Sample Size for Measure Reporting

In the measure information CMS provided for public comment, the measure developer does not appear to have completed an analysis on the minimum sample size (i.e., patient volume) needed to report on the measure. **We strongly urge the measure developer to include such an analysis in its measure testing plan. If the developer does not perform this analysis, CMS should do so before including this measure in any public reporting program.** As outlined in the AHA/AAMC bundled payment report, managing a single bundled payment requires an adequate patient volume to manage financial risk. Similarly, with an episode payment measure, a measured organization must have adequate volumes to report reliable, accurate measure results. Organizations with very small patient volumes, such as primarily rural critical access hospitals (CAHs), may ultimately need to be excluded from reporting on the measure.

The AHA/AAMC analysis developed a statistical estimate to predict the volume of cases at which the average Medicare episode payment is relatively stable. At that volume, an outlier case would not substantially affect the average payment. While this analysis was developed for the purposes of developing a payment bundle, it also can be used to help determine the minimum volume needed for reporting on the measure. Across all of the DRGs included in the analysis, this volume was approximately 200 cases.

COMMENTS ON MEASURE TECHNICAL SPECIFICATIONS

Measures used in public reporting programs must reflect an organization's true performance, and generate results that are comparable across organizations. To ensure the accuracy and comparability of measure results, measures often exclude certain patient populations that have shown to have results well outside of the norm. Measures also use risk-adjustment to account for patient-level or other factors relevant to the outcome. The performance score is adjusted by some calculated factor so that it measures performance, and not just the variation caused by those factors. While we generally support the exclusions and risk-adjustment strategy currently proposed for the AMI episode payment measure, we do have several other concerns for CMS to consider.

Measure Exclusions

The measure developer should consider excluding patients with unique clinical circumstances who are likely to incur disproportionately different costs in a bundled payment arrangement, including ESRD, hospice, cancer and HIV/AIDS patients. Indeed, the current BPCI initiative excludes ESRD and hospice patients. In addition, cancer and HIV/AIDS patients have been excluded from a similar AMI episode of care payment bundle developed as part of the Prometheus bundled payment project.³

The measure developer currently attempts to account for two of these patient types – ESRD and cancer – through risk adjustment. However, ESRD patients have markedly higher costs than other patients in bundled payment arrangements due to the severity of their condition, and high

³ Information on the Prometheus project can be found at <http://www.hci3.org/>. The specifications used for the AMI payment bundle can be accessed at http://www.hci3.org/sites/default/files/files/AMI_Playbook_1b_ECR%20Definition%20Summary.pdf.

utilization rate of dialysis and other vascular access-related services. Cancer patients also have expensive, clinically unpredictable treatment regimens.⁴ Similarly, HIV/AIDS patients are often on complex, expensive treatment regimens likely to affect the course of their acute and post-acute care. Finally, the goals of treatment for patients in hospice care – palliation and preparations for the end-of-life – are different from other AMI patients.

The current measure specifications also exclude drug costs not incurred during a hospitalization. Prescription drugs are often an integral part of a patient’s post-acute care management. Thus, **we also recommend that the measure developer explore the inclusion of Medicare Part D payments in a future version of the measure.** If the goal of episode-based payment measures is to understand the costs of care across the spectrum, payments for prescription drugs provide another critical input.

Risk Adjustment Model

The measure developer and CMS should consider including dual-eligible status in its risk-adjustment model. Dual-eligible patients tend to be sicker, frailer, more likely to live alone, and more likely to experience behavioral health issues than the general Medicare population. Such patients may benefit from the enhanced coordination of care promoted by a bundled payment arrangement, but also have Medicare episode payments that are slightly higher than other beneficiaries.⁵ Dual-eligible patient status would therefore be appropriate to include as a risk adjustment factor.

We also encourage the developer to explore additional mechanisms to adjust for patient complications that do not result from a hospitalization. A complicating condition that a patient has prior to an episode of care can dramatically affect the costs of treatment, but the current risk adjustment model may lack the precision to identify such conditions. The measure developer currently uses CMS’s “condition categories” (CCs) that combine ICD-9 codes into clinically related groupings. The developer then includes those CCs in the model that are clinically related to AMI costs, and that are shown to significantly affect payments. However, the model has limited ability to distinguish between conditions that a patient already has, and those that develop during the episode. The Technical Expert Panel convened by the measure developer recommended that it consider incorporating the Present on Admission (POA) flag in Medicare claims to help make this distinction.⁶ While the POA flag is still relatively new, we encourage the developer to test its use in the risk adjustment model.

⁴ American Hospital Association and Association of American Medical Colleges, 2012. *Medicare Payment Bundling: Insights from Claims Data and Policy Implications*. The report and summary can be accessed at <http://www.aha.org/research/reports/12bundling.shtml>.

⁵ Information on the Prometheus project can be found at <http://www.hci3.org/>. The specifications used for the AMI payment bundle can be accessed at http://www.hci3.org/sites/default/files/files/AMI_Playbook_1b_ECR%20Definition%20Summary.pdf.

⁶ <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/Downloads/Summary-of-Technical-Expert-Panel.pdf>.

Transfer Patients

The AHA is concerned about CMS's method for attributing payments for hospital-to-hospital transfer patients. The measure developer proposes to assign payment to the "first admitting hospital because the first hospital initiates patient management and the 30-day episode-of-care timeframe starts with the initial admission." The developer further states that "the first admission is eligible to be an index admission in the measure, while the second or subsequent admissions in the same acute episode are not counted as index admissions."

As stated earlier, this measure should not be used only to assess the performance of acute-care hospitals. A wide variety of services and care settings are encompassed in a 30-day episode of AMI care, making it essential to carefully select the measure entity. **Moreover, the organization that initially admits a patient may not have as much control over the patient's course of care as the measure implies.** The initial admitting hospital may or may not be part of an integrated delivery system in which it has a close working relationship with hospitals to which a patient would be transferred. **Finally, attributing payments in this way may incentivize suboptimal patient care.** Hospitals considering a medically needed patient transfer would have a stronger incentive to hold onto patients longer to avoid being held accountable for the costs of another facility. The objective of measuring hospitals on cost should not be to reduce needed care, but to encourage that care to be delivered in an efficient manner.

Given these limitations, we recommend that CMS exclude all transfer patients from the measure. The fair attribution of costs in an increasingly integrated health care system will be a challenge. Future measure development and public reporting efforts will need to consider the implications of transfer patients.

Thank you again for the opportunity to comment. If you have questions, please contact me or Akin Demehin, senior associate director for policy, at (202) 626-2365 or ademehin@aha.org.

Sincerely,

/s/

Linda Fishman
Senior Vice President
Public Policy Analysis and Development

cc: Measure Developer (YNHHSC/CORE)