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Via Electronic Submission (cmsstarratings@yale.edu))

September 27, 2017

Kate Goodrich, M.D.
Chief Medical Officer
Centers for Medicare & Medicaid Services
U.S. Department of Health and Human Services
7500 Security Boulevard
Baltimore, MD 21244

Re: Comments Regarding Overall Hospital Quality Star Rating Project

Dear Dr. Goodrich:

The Association of American Medical Colleges (AAMC or Association) welcomes this opportunity to comment on the proposed methodology enhancements for the Overall Hospital Star Rating program. The AAMC is a not-for-profit association dedicated to transforming health care through innovative medical education, cutting-edge patient care, and groundbreaking medical research. Its members comprise all 147 accredited U.S. and 17 accredited Canadian medical schools; nearly 400 major teaching hospitals and health systems, including 51 Department of Veterans Affairs medical centers; and more than 80 academic societies. Through these institutions and organizations, the AAMC serves the leaders of America's medical schools and teaching hospitals and their nearly 167,000 full-time faculty members, 88,000 medical students, and 124,000 resident physicians.

The AAMC appreciates the time and work on reevaluating the star ratings. However, we remain very concerned with the flawed methodology used to determine star ratings on Hospital Compare. The star ratings published on the website are inaccurate and misleading to consumers that are seeking hospitals to provide their care. Many of these concerns were previously highlighted by the AAMC's in comments to CMS and are also outlined below in this letter.

General Comments

Suspend the Star Ratings Until Flawed Methodology is Addressed

Until CMS is able to address significant concerns with the methodology used to assign star ratings, the AAMC calls on the Administration to remove the star ratings from the Hospital Compare website. We request that CMS allow sufficient time to examine the feedback provided and make modifications to the methodology to ensure that the star ratings are accurate

before publishing this information on the website. Our concerns are exacerbated by the fact that substantive errors were also made when the methodology was implemented and as a result star ratings were impacted. We remain extremely concerned about potential consequences for patients that could result from painting an overly simplistic picture of hospital quality with the star rating system. We believe it is imperative that CMS contract with independent outside experts to review the methodology and verify its accuracy.

An Overall Hospital Compare Composite Score Adds to Confusion about Hospital Quality

The AAMC strongly supports making quality data available in an easy to understand format for patients and the public. The AAMC was a founding member of the Hospital Quality Alliance, which pushed hospitals to publicly report core process measures and later worked closely with CMS on the creation and development of the Hospital Compare website. While we support efforts for greater transparency, we believe that this information must be displayed in an appropriate fashion. A single composite rating that combines diverse quality measures, particularly those that lack clinical nuance, oversimplifies the complex factors that must be taken into account when assessing the care quality. This is particularly true for the nation's teaching hospitals that typically care for sicker and more vulnerable patients in a diverse and complex environment. Moreover, the current methodology requires a certain percentage of hospitals in each of the 5 star levels. Therefore, even if all hospitals are improving and above a threshold of quality performance, there will always be those hospitals that fall into the one or two star category even though the quality of care they provide may not be meaningfully different from those in a higher category.

Rather than using a single composite score methodology, the AAMC recommends the development of star ratings for subsets of measures, which should ultimately be more meaningful and actionable for both consumers and providers. The measures on Hospital Compare cover a wide variety of conditions and procedures in the inpatient, outpatient, and emergency department settings; consumers may choose a hospital for a particular condition or location, and may make a different choice at another time. Consumers utilizing the website should have the final say as to which aspect of care is most significant for their specific situation. A rating that combines all of the multiple dimensional aspects into a single summary score may not provide a consumer with the information that is truly important for his or her situation. Ultimately, we are concerned that patients need multifaceted information to aid them in their healthcare choices. Distilling a large amount of information into one overall star rating will not be useful.

Transparency in Methodology and Ongoing Reevaluations Recommended

The AAMC recommends that CMS provide a more complete impact analysis of each proposal to allow additional transparency to stakeholders as they evaluate improvements to the program. We propose additional information be provided on differences in the model output as a result of each proposal as compared to the current methodology, including:

- The number of hospitals that change with a change (increase or decrease) in each star rating
- How the proposal impacts the measure loading on each quality measure

- The change in the cutoff for the hospital summary score for each star rating
- The number of hospitals whose ratings were winsorized
- The change in the explanatory power of the model (for example, R-square)
- The influence of outliers on the on clustering

Further, we recommend that CMS provide an analysis after each update of the star ratings to summarize changes in each of the items above. This would promote transparency and enable stakeholders to make more meaningful recommendations on improving the methodology.

The AAMC also strongly recommends that CMS continue ongoing review for areas of improvement in future releases of the Star Ratings and convene stakeholders regularly to review the appropriateness of the current methodology.

Comments on Specific Sections

As stated above, we have significant concerns with an overall star rating for hospitals. CMS requests feedback on a number of possible enhancements for the Overall Star Rating methodology in its recent announcement. Below are specific comments on some of the topics for which feedback is requested.

Section 3.1 Combined Enhancement for the Star Rating Calculation

In this section CMS presents the following three potential enhancements to the Overall Star Rating, for public feedback including: 1) K-means clustering using complete convergency; 2) discontinuation of hospital summary score winsorization; and 3) resequencing reporting thresholds to occur prior to clustering. The rationale for each enhancement as well as analytic exhibits is also included to assist with understanding of the impact of the enhancements on hospital star rating assignments.

The AAMC supports the proposal to resequence the reporting thresholds prior to clustering. Setting the threshold prior to clustering will lessen the influence of hospitals that do not report enough measures or domains on the star ratings of other hospitals. The AAMC supports removing hospitals that do not report enough domains or measures so that hospitals are compared only to those hospitals that submit similar amounts of data.

We appreciate the request for feedback on these enhancements. However, we recommend that CMS provide additional data and model output statistics that would enable stakeholders to diagnose and understand the impact of these proposed enhancements and any future changes. This would promote transparency and enable stakeholders to make more meaningful recommendations on improving the methodology.

Section 4.2: Weighting of Measure Groups

To create a star rating, CMS weights the performance scores for the seven different measurement groups. Four of the seven categories are weighted at 22 percent and three at 4 percent. CMS proposes heavier weights for the mortality measure and patient experience category and smaller

weights for readmissions and safety domains, as well as increasing the weight for effectiveness and timeliness measures.

The document includes two different alternatives to the current weights used in the star ratings program and asks for feedback on these alternative weights or any other alternative distribution of measure group weights.

Since these weights are critical to the determination of the star ratings, the AAMC asks that CMS justify the weights for each category based on the integrity of the measures and the importance of that particular category overall in determining the hospital's performance.

AAMC recommends that higher weight be given to the Mortality measure group since these outcome measures are of high importance to patients. We recommend lower weights for the Safety of Care and Readmission group measures given numerous concerns with the validity of these measures and the lack of adjustment for social determinants associated with these measure groups.

The Table below includes AAMC's suggested weighting approach, which places more emphasis on measures that are meaningful to the patient.

Measure Group	Current Weight	Recommended Weight
Mortality	22%	30%
Safety of Care	22%	18%
Readmission	22%	18%
Patient Experience	22%	22%
Effectiveness of Care	4%	4%
Timeliness of Care	4%	4%
Efficient Use of Medical Imaging	4%	4%

Section 4.3 Public Reporting Thresholds

Currently, the methodology requires that hospitals must report at least three measure groups, one of which must be an outcome group, with at least three measures within each measure group to receive a star rating. Feedback is requested on whether the current measure group requirements should be modified whether there should be minimum measure requirements and/or inclusion of all other available measures from hospitals that meet the reporting threshold should be modified.

While we recognize the importance of maximizing the number of hospitals included in the Overall Star Ratings, we are concerned that it is difficult to assess hospitals that do not report enough domains and problematic to compare them with hospitals for which there is more complete information reported on measures and domains.

Therefore, the AAMC supports removing hospitals that do not report enough domains or measures so that hospitals are compared only to those hospitals that submit similar amounts of

data and for which there is more complete information. AAMC analysis of the ratings has confirmed that the lower the number of measures a hospital reported, the more likely a hospital is to receive a higher star rating.

Hospitals that report the minimum number of measure groups (domains) are up to 5 times more likely to receive a 5-star rating, and about 5 times less likely to receive a 1-star rating.

	Star Rating					
	5 Stars	**4 Stars**	**3 Stars**	**2 Stars**	**1 Stars**	**All with a Star Rating**
Total # (%) of hospitals	102 (2%)	927 (20%)	1752 (38%)	707 (15%)	129 (3%)	3,617 (100%)
# (%) of hospitals that have scores in the following number of performance domains						
7 Domains	53 (2%)	590 (25%)	1,087 (46%)	548 (23%)	111 (5%)	2,389
6 Domains	4 (1%)	114 (27%)	209 (49%)	87 (20%)	15 (3%)	429
5 Domains	7 (3%)	82 (32%)	140 (55%)	26 (10%)	0 (0%)	255
4 Domains	8 (3%)	76 (30%)	147 (57%)	24 (9%)	1 (0%)	256
3 Domains	30 (10%)	65 (23%)	169 (59%)	22 (8%)	2 (1%)	288

AAMC-calculated results of the July 2016 Hospital Compare release

As another alternative, CMS could make adjustments to the summary score performance based on the volume of measures reported.

Section 5.1 Stratification by Hospital Type of Characteristics

The current Overall Star Rating methodology does not stratify by type or characteristic of hospitals. In the document, feedback is requested regarding whether the Overall Hospital Star Rating should be stratified and if so, based on what characteristics.

The AAMC recommends that CMS explore measure performance within specific hospital peer cohorts so that hospitals with similar characteristics and risk profiles are compared to each other. The use of peer cohorts may help mitigate limitations in comparing hospitals with different types of service mix and patient complexity. Teaching hospitals perform a wide array of complicated and common procedures, pioneer new treatments, and care for broader socio-demographic patient populations that may not have access to regular care. Yet under the star ratings program, they are compared directly to hospitals with more homogenous patient populations and hospitals that do not do enough procedures to be counted.

As an example, CMS uses up to 57 measures to calculate ratings for teaching hospitals and as few as nine measures on some hospitals that treat patients with less complex conditions or that treat a limited number of conditions.

AAMC analysis of the ratings has confirmed that the lower the number of measures a hospital reported, the more likely a hospital was to receive a higher star rating. In fact, hospitals that reported on only 60 percent of the metrics or less received almost half of the five-star ratings.

After stratifying hospitals before applying the star ratings methodology, AAMC analysis found that the following characteristics are significant factors that could be used to determine rankings.

- Disproportionate hospital share patient percentage
- Number of measures reported
- Number of domains reported
- Teaching status

Section 5.2 Measure Inclusion

The Overall Hospital Star Rating methodology has measure inclusion criteria. Current exclusions are listed in the document along with questions for public input about the inclusion criteria that should be considered and whether there are measure exclusions that should be considered.

The AAMC urges CMS to exclude from the scoring measures reported on Hospital Compare that CMS has delayed or retired. We are concerned about including measures in the scoring that hospitals are no longer required to collect. In addition, we believe that when a measure has been removed from the IQR, it should not continue to be reported on Hospital Compare or included in the Overall Star rating calculations.

Remove the PSI-90 Composite measure from the Star Ratings

The AAMC recommends removing the PSI-90 when determining Star ratings. MedPAC and academic researchers have noted serious deficiencies with the PSI-90 measure, which include the following concerns regarding the components of PSI-90: susceptible to surveillance bias; may not be preventable through evidence based practices; lack appropriate and necessary exclusions, some of them associated primarily with larger and academic centers; and, are based on administrative claims data so cannot capture the full scope of patient-level risk factors.[1] [2]

Since the PSI-90 components focus on surgical care, teaching hospitals are more likely to be disproportionately impacted by this measure because they tend to have a larger volume of surgical cases.[3] Finally, as a composite measure PSI-90 is (by design) weighted more toward some events than others, so that bias can be further magnified beyond the intrinsic limitations of an individual PSI when it is weighted more significantly in the composite. CMS has proposed a modified version of the PSI-90 composite. The AAMC has concerns that the issues cited above may continue to apply with the modified version.

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[1] "MedPAC Comments on FY 2014 IPPS Proposed Rule." June 25, 2013. Retrieved from: http://www.medpac.gov/documents/comment-letters/medpac's-comment-on-cms's-acute-and-long-term-carehospitals-proposed-rule.pdf?sfvrsn=0

[2] Rajaram, Ravi et al. Concerns About Using the Patient Safety Indicator-90 Composite in Pay-for-Performance Programs. JAMA. Vol 313, No. 9. March 3, 2015. Retrieved from: http://jama.jamanetwork.com/article.aspx?articleid=2109967

[3] Medicare's Hospital-Acquired Condition Reduction Program. Health Affairs: Health Policy Briefs. August 6, 2015. Retrieved from http://www.healthaffairs.org/healthpolicybriefs/brief.php?brief_id=142 Acting Administrator Slavitt June 17, 2016

Furthermore, the PSI-90 measure is highly correlated with the domain score. The TEP report contained a breakdown of the measure's relationship to the overall group score relative to the other measures within the group, which is referred to as loading. Regarding the distribution of measures in the safety domain, performance on PSI-90 was clearly the measure most strongly associated with the group score. The AAMC is very concerned that the problematic PSI-90 measure has a much higher loading score than the Centers for Disease Control (CDC) National Healthcare Safety Network (NHSN)'s measures. These measures, which are clinically validated, represented a much weaker association with the safety group score.

Remove the hospital-wide readmission measure from the Star Ratings

The AAMC recommends removing the hospital wide readmission measure from the Star ratings until there is adequate risk adjustment. The readmission measures have been correlated with sociodemographic status (SDS) factors that are beyond the immediate control of the hospital. The high weighting of these measures in a composite could provide an inaccurate ranking.

Over the past several years, a substantial amount of literature has recognized the impact of SDS factors on patient outcomes.[4,5] Recent reports released by the Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation (ASPE) and the National Academy of Medicine (NAM) on accounting for social risk factors in the Medicare performance programs have provided evidence-based confirmation that accounting for patients' sociodemographic and other social risk factors is critical in validly assessing the quality of providers. The reports demonstrate that providers caring for large numbers of disadvantaged patients are more likely to receive penalties in the performance programs and that the lack of SDS adjustment can worsen health care disparities because the penalties divert resources away from providers treating large proportions of vulnerable patients. The failure to account for SDS variables also is misleading and confusing to patients, payers, and policymakers because it shields them from important community factors that contribute to poor health outcomes. Finally, as noted by ASPE, the cumulative effect of the penalties across the Medicare performance and penalty programs could significantly hinder the work of those institutions that disproportionately serve beneficiaries with social risk factors.[6] Both reports clearly show that there are implementable mechanisms by which SDS data elements can be incorporated into quality measurement today.

[4] Michael Barnett, MD, et al. *Patient Characteristics and Differences in Hospital Readmission Rates*. JAMA, 2015. Retrieved from: http://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2434813

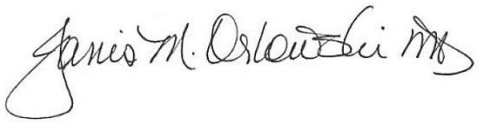
[5] Jianhui Hu, et al. *Socioeconomic status and readmissions: evidence from an urban teaching hospital*. Health Affairs, 2014. Retrieved from: http://content.healthaffairs.org/content/33/5/778.full

[6] "Office of the Assistant Secretary for Planning and Evaluation." *Report to Congress: Social Risk Factors and Performance Under Medicare's Value-Based Purchasing Program*. December, 2016. Pg, 92 Retried from https://aspe.hhs.gov/system/files/pdf/253971/ASPESES RTCfull.pdf

Conclusion

The AAMC thanks the Agency for considering these comments and looks forward to engaging on next steps. If you have any questions regarding these comments and recommendations, please contact Gayle Lee at galee@aamc.org or Matt Baker at mbaker@aamc.org.

Sincerely,



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cc:
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