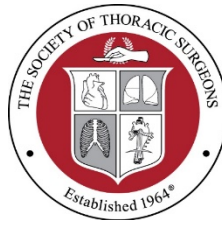


STS Headquarters

633 N Saint Clair St, Suite 2100
Chicago, IL 60611-3658
(312) 202-5800
sts@sts.org



Washington Office

20 F St NW, Suite 310 C
Washington, DC 20001-6702
(202) 787-1230
advocacy@sts.org

October 5, 2018

Sent via email

Steven Farmer, MD, PhD, FACC
Senior Advisor and Medical Officer
Centers for Medicare and Medicaid
Innovation
7500 Security Boulevard
Baltimore, MD 21224

Elizabeth Currier MBA/MPH, LSSGB,
FACMPE
Physician Practice Administrator
Centers for Medicare and Medicaid
Innovation
7500 Security Boulevard
Baltimore, MD 21224

Dear Dr. Farmer and Ms. Currier,

On behalf of The Society of Thoracic Surgeons (STS), I would like to thank you for hosting an open and constructive conversation on September 6, 2018 focused on defining new episodes and measures for the next phase of Bundled Payments for Care Improvement Advanced (BPCI Advanced). STS has had a longstanding interest in engaging with the Centers for Medicare and Medicaid Innovation (the Innovation Center) to devise better ways to truly measure and incentivize quality care through alternative payment models. We are grateful that the Innovation Center is interested in this collaboration, and enthusiastic about your openness to considering long-established approaches to quality measurement. As was discussed on our conference call, we truly appreciate that the Innovation Center is 1) trying to minimize physician reporting burden and 2) willing to rely on validated measures from the STS National Database. We see this both as an endorsement of the value of the database and as a demonstration of your intent to minimize reporting burden and maximize the use of validated and clinically credible quality measurement data.

The Innovation Center is endeavoring to implement new payment bundles with five relevant quality measures (2 general measures applicable across all payment bundles and 3 measures applicable to the specific bundle). Included among those bundles are two that are particularly relevant to cardiothoracic surgery:

1. Coronary artery bypass graft (CABG)
2. Cardiac valve procedures

Below, we discuss our recommendations with respect to the five measures being proposed for each of the two relevant payment bundles as well as suggested weighting for those measures.

General measures

Care Planning:

STS agrees with the importance of care planning, which is particularly relevant for the post-operative cardiac surgical patient.

However, we would urge the Innovation Center to consider exactly what it is attempting to capture with these general measures. It seems that many of the measures discussed below, including those that are designated as episode-specific measures, are, in fact, general measures, many of which could feasibly be interpreted as a part of a care planning consultation.

We suggest that you may also consider using Patient-Centered Surgical Risk Assessment and Communication (*MIPS #358*) which is essential for patient education and consent. The STS National Database's risk-assessment tool is considered the gold standard within the registry community and provides an accurate depiction of the quality of care throughout the country. We would welcome the opportunity to work with the Innovation Center to utilize our risk-assessment tool for the BPCI Advanced model.

PSI 90:

As discussed below, we think quality will be most adequately and accurately assessed using the composite scores we recommend under the "specific measures" section. If the Innovation Center is looking for general measures that can be applied across most BPCI-A bundles, we recommend that you consider using the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) tool instead of PSI-90. Although we frequently enumerate the limitations of this tool, given the limited choices in this space, we would consider it the lesser of two evils. If not used in place of the care planning measure, the Patient-Centered Surgical Risk Assessment and Communication (*MIPS #358*) would be a welcome substitution here as well.

The Innovation Center has suggested that the BPCI Advanced model will apply the composite quality measure PSI-90 to all clinical episodes. However, the Innovation Center has not yet released specifications about how it intends to apply this measure, and we believe that PSI-90 may not reliably measure clinical quality. For cardiac surgery episodes, the STS National Database provides the ideal assessment of clinical quality.

If the Innovation Center retains PSI-90 in BPCI Advanced, then it is imperative that the Innovation Center specify the composite for ICD-10; adequately risk adjust the measure; test PSI-90 for validity through the Hospital Inpatient Quality Reporting (HIQR) program; and apply P4R for the first period in which the measure is used.

As discussed by Rajaram, Barnard, and Bilimoria, there are a number of issues associated with use of the PSI-90 composite measure¹. The PSI-90 composite quality measure has three primary methodological limitations:

1. PSI-90 has not yet been updated with ICD-10 specifications or used for the HIQR program;
2. PSI-90 was designed for application at the hospital rather than episode level, which raises concerns about its reliability due to the potential for small sample size; and

¹ Rajaram, R., Barnard, C., & Bilimoria, K. (2015). Concerns About Using the Patient Safety Indicator-90 Composite in Pay-for-Performance Programs. *The Journal of the American Medical Association*, 313(9), 897-898.

3. PSI-90 is not risk adjusted for patient case mix, which means it does not account for patients' comorbidities and may not adequately measure the quality of clinical care.

The first limitation is that while the individual component measures have been specified for ICD-10 for observed rates, the PSI-90 composite measure methodology has not been specified for ICD-10. This leads to potential inaccuracies and limited comparability between the baseline and performance period. Currently, if participants attempt to calculate their PSI-90 measure, they could only utilize claims billed with ICD-9 codes through the third quarter of 2015. Although participants could utilize General Equivalence Mappings (GEMS) to convert claims billed with ICD-9 to ICD-10, the additional specificity of ICD-10 codes creates additional challenges and weakens the conversion. In some cases, the new specificity drastically changes the PSI rates calculated using claims with ICD-10 codes, limiting the comparability of the estimates.

The Innovation Center has not released specifications on how it intends to modify PSI-90 to measure the composite at an episode level. However, even in the absence of the Innovation Center guidance, there is concern that the measure may be susceptible to variations in sample size. PSI-90 currently assigns each component measure a different denominator, some of which depend on the episode (e.g., some PSI components are surgical-based). Because the denominator for each component may be based on the number of episodes, the sample size at the episode level will be incredibly small for very rare events, making the measure extremely sensitive to variation in sample size. There has been large variability observed in the PSI-90 measure based on each release, where the individual measure weights within the composite change each year, sometimes drastically. This makes it challenging at the facility-level to target improvements.

The third limitation is that PSI-90 may not be valid due to the lack of risk adjustment for both the component and composite measures. This creates additional challenges for both individual surgeons and medical centers that may treat a higher proportion of complex and disadvantaged patients. Frequently, the outcomes of many of the PSI-90 component measures are due to patients' comorbidities, rather than the delivery of care and are particularly out of the scope of the surgeon's care.

Specific Measures

NQF 2597 – Substance use screening and intervention

STS supports the Administration's efforts to curb the alarming trend of substance abuse. We are particularly concerned with the alcohol and tobacco use in our patients because of the overwhelming evidence linking these substances to acquired heart disease, and we agree that information on these behaviors should be obtained from patients to better understand a patient's risk, plan his or her care, and achieve optimal outcomes. In addition, STS wants to help the Innovation Center address the opioid crisis that is plaguing our country, particularly in view of recent data that prescription of opiates for the treatment of post-surgical pain is related to longer term opiate abuse.

We understand that the Innovation Center would like us to demonstrate how we can incorporate these measures in our STS National Database. While smoking cessation consultations are

captured in the database, opioid use is not currently included. We would be open to consulting with the Innovation Center on how the database can be used to facilitate this type of reporting. We note that screening tools such as the National Institute of Drug Abuse (NIDA) Quick Screen Questionnaire are lengthy and would be burdensome to implement. Therefore, we believe that capturing the risk of tobacco, alcohol, and opioid use in the initial history taking and documenting via the STS National Database would be ideal.

NQF 3030 – Individual composite for all CT surgery

(proposed change to AVR+CABG composite score NQF #2563, MV repair/replacement + CABG composite score NQF #3032, CABG composite score NQF #0696, AVR composite score NQF #2561, MV repair/replacement composite score NQF #3031)

First and foremost, we appreciate that the Innovation Center is considering using quality measures that are currently captured by the STS National Database. We see this as a turning point in our ongoing efforts to leverage the power of clinical data registries and robust quality reporting. We understand that the Innovation Center would like to use a single measure that can be applicable across multiple bundles; however, we believe that composite scores for the individual procedures that serve as the basis of the bundle (i.e. CABG, valve procedures) are more relevant than a composite that includes an individual surgeon's performance across all cardiothoracic surgical procedures. Bundled payments, by design, are intended to facilitate team-based care at the institutional level. Using a quality measure that is relevant to only one member of that team seems to misdirect the incentives that are intended to foster team collaboration. There are many examples of the same surgeon having different outcomes in different institutions, and the emphasis on care at the system level reflects the importance of system factors for the quality of care that is delivered. In addition, the MIPS program has already set a precedent for facility-based reporting. In fact, most cardiothoracic surgeons are using facility-based reporting for MIPS. Finally, APM quality measures need to be comparable to MIPS quality measures and the facility-based scoring will provide the best opportunity for point-to-point comparison.

In addition, STS advocates measuring quality at the hospital/institutional level rather than the surgeon level, as the greater volume of cases facilitates statistically valid determinations of quality differences. Thus, measure NQF 3030 does not seem to be appropriate in our view, as it is a surgeon-level measure.

If the Innovation Center intends to have separate bundled payment programs for CABG and Valve procedures, we recommend use of the STS Coronary Artery Bypass Graft (CABG) Composite (*NQF #0696*) for the former (a 4-domain composite consisting of risk adjust CABG mortality, risk-adjusted CABG morbidity, use of an IMA graft, and use of all four NQF-endorsed medications). The CABG Composite measure is available to all STS National Database participants (which include >95% of cardiac surgery programs in the US).

For a separate valve bundle, we recommend use of one or more of the following STS composite measures, which are all already provided to STS participants and are NQF endorsed: isolated surgical Aortic Valve Replacement (AVR) (*NQF #2561*), surgical AVR plus CABG (*NQF #2563*), isolated surgical Mitral Valve Repair/Replacement (*NQF #3031/Repair (MVRR)*), and

surgical MVRR plus CABG (NQF #3032). These are all two-domain composites (risk adjusted mortality and risk adjusted morbidity). Again, the advantages of these measures are (1) no additional data collection burden; (2) virtually all US cardiac programs already receive reports of their performance on these measures, so they will be familiar with them; (3) they are all published in the peer-reviewed literature and are all NQF-endorsed; and (4) the majority of US programs already publicly report some or all of these measures.

NQF 0642 – Cardiac rehab referral

We are supportive of the concept of including cardiac rehab in a patient's care plan and appreciate that the Innovation Center is trying to incentivize providers to ensure the best possible patient outcomes. The Innovation Center plans to implement this measure by relying on STS Database reporting to verify that the cardiac rehab referral was made using NQF #0642. We understand from our conversation that capturing this would give members full credit for the measure. Clearly we believe in the importance of post-operative cardiac rehabilitation. However, we think it is important to emphasize that there are limits on what physicians can do to encourage patients to be compliant and adhere to post-surgical follow-up treatment. Therefore, we recommend that the Innovation Center utilize the measure, NQF #0642, as specified.

As noted above, we respect that the Innovation Center is trying to create a program of quality measurement that is replicable across various episodes of care. That is why the Innovation Center has proposed to use two general measures that are to be used throughout BPCI-A and three measures that are specific to the individual episode. However, we feel strongly that these measures are not equally important and should be weighted accordingly. More specifically, we believe the general measures should each be valued as 10 percent of the overall quality score. Specific measures, cardiac rehab referral and substance use should each be valued as 20 percent of the overall score and the episode composite scores should be worth no less than 40 percent of the overall score.

To summarize our recommendations, we believe that for the cardiothoracic focused bundles, CMS should implement the quality measurement component of the program as follows (based on CMS' desired structure for the program):

STS Proposed BPCI Advanced Cardiothoracic-Focused Episode Quality Measurement Structure			
CABG Episode		Cardiac Valve Episode	
<ul style="list-style-type: none"> • DRG 231: Coronary Bypass w/PTCA w/MCC • DRG 232: Coronary Bypass w/PTCA w/o MCC • DRG 233 Coronary Bypass w/Cardiac Cath w/MCC • DRG 234: Coronary Bypass w/Cardiac Cath w/o MCC • DRG 235: Coronary Bypass w/o Cardiac Cath w/MCC • DRG 236: Coronary Bypass w/o Cardiac Cath w/o MCC 		<ul style="list-style-type: none"> • DRG 216: Cardiac Valve & Oth Maj Cardiothoracic Proc w/Card Cath w/MCC • DRG 217: Cardiac Valve & Oth Maj Cardiothoracic Proc w/Card Cath w/CC • DRG 218: Cardiac Valve & Oth Maj Cardiothoracic Proc w/Card Cath w/o CC/MCC • DRG 219: Cardiac Valve & Oth Maj Cardiothoracic Proc w/o Card Cath w/MCC • DRG 220: Cardiac Valve & Oth Maj Cardiothoracic Proc w/o Card Cath w/CC • DRG 221: Cardiac Valve & Oth Maj Cardiothoracic Proc w/o Card Cath w/o CC/MCC 	
Standard Program Measures and Weights			
Advanced Care Plan (NQF #0326) or Patient-Centered Surgical Risk Assessment and Communication (MIPS #358)	10%	Advanced Care Plan (NQF #0326) or Patient-Centered Surgical Risk Assessment and Communication (MIPS #358)	10%
HCAHPS (NQF #0166) or Patient-Centered Surgical Risk Assessment and Communication (MIPS #358)	10%	HCAHPS (NQF #0166) or Patient-Centered Surgical Risk Assessment and Communication (MIPS #358)	10%
Episode-Specific Measures and Weights			
Substance Use Screening and Intervention (NQF #2597)	20%	Substance Use Screening and Intervention (NQF #2597)	20%
<u>Episode Specific STS Composite Measures:</u> <ul style="list-style-type: none"> • AVR+CABG composite score NQF #2563 • MV repair/replacement+CABG composite score NQF #3032 • CABG composite score NQF #0696 • AVR composite score NQF #2561 • MV repair/replacement composite score NQF #3031 	40%	<u>Episode Specific STS Composite Measures:</u> <ul style="list-style-type: none"> • Isolated Surgical Aortic Valve Replacement (AVR+) NQF #2561 • Surgical AVR plus CABG composite score NQF # 2563 • MV repair/replacement+Isolated Surgical Mitral Valve Replacement/Repair NQF # 3031 • Surgical MVRR plus CABG composite score NQF #3032 • CABG composite score NQF #0696 • AVR composite score NQF #2561 • MV repair/replacement composite score NQF #3031 	40%
Cardiac Rehabilitation Patient Referral From an Inpatient Setting (NQF #0642)	20%	Cardiac Rehabilitation Patient Referral From an Inpatient Setting (NQF #0642)	20%

We also wish to note again that our ultimate goal as a profession is to address not only quality but also the *value* problem our society is facing. In this context, we wish to re-emphasize that the

October 5, 2018
Dr. Farmer & Ms. Currier
7

value dilemma can best be addressed through the integration of claims data (i.e. resource use) with robust clinical registry data such as that which is present in the STS Databases. We are hopeful that in the longer term this integration will become a reality and that the Innovation Center could encourage and facilitate a process in which STS could access this type of resource use data and match it to the existing clinical data.

We look forward to working with the Innovation Center to identify measures that will accurately capture quality cardiothoracic care. We welcome the opportunity to continue our discussion on this important issue. Please contact Courtney Yohe, Director of Government Relations, at cyohe@sts.org or 202-787-1222 should you need clarification or additional information.

Sincerely,

A handwritten signature in cursive script that reads "Alan M. Speir, MD". The signature is written in black ink on a white background.

Alan M. Speir, MD
Chair
Council on Health Policy and Relationships

cc: Keith S. Naunheim, MD, President
Joseph F. Sabik, MD, Secretary