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Mr. Andy Slavitt
Acting Administrator
Centers for Medicare & Medicaid Services
US Department of Health & Human Services
Attention: CMS-1645-P
P.O. Box 8013
Baltimore, Maryland 21244-8013

Via Electronic Submission: http://www.regulations.gov

Re: Medicare Program; Revisions to Payment Policies under the Physician Fee Schedule and Other Revisions to Part B for CY 2017 (CMS-1645-P)

Dear Acting Administrator Slavitt:

On behalf of The Society of Thoracic Surgeons (STS) I write to submit comments on the calendar year (CY) 2017 Medicare Physician Fee Schedule Proposed Rule (MPFS) published in the *Federal Register* on July 15, 2016. Founded in 1964, STS is an international not-for-profit organization representing more than 7,000 cardiothoracic surgeons, researchers, and allied health care professionals in 90 countries who are dedicated to ensuring the best surgical care for patients with diseases of the heart, lungs, and other organs in the chest. The mission of the Society is to enhance the ability of cardiothoracic surgeons to provide the highest quality patient care through education, research, and advocacy.

Below, we address the specific provisions of the proposed rule that are of interest to STS and our patients. However, as an overarching request, ***we urge CMS to consider comments and potential revisions in the context of the CMS proposed rule earlier this year regarding the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) implementing the Merit-based Incentive Payment System (MIPS) and Advanced APM Incentive Payment***. These rules, combined, represent a massive shift in how Medicare pays physicians for services provided to Medicare patients. STS supports many of these efforts but remains concerned that the collision of several of CMS' proposals at a time of extreme change in the Medicare program creates potential for decreased access to care issues for patients and undue administrative burdens on physician practices that are already under pressure after a decade of reimbursement levels that have failed to keep up with inflation. STS continues to invest in research and development to support systems of reimbursement in cardiothoracic surgery that promote value in the care that we deliver to patients and hope that CMS will create an environment where those efforts can succeed. It is in that context that we provide the following comments to the CY 2017 MPFS Proposed Rule.

DETERMINATION OF MALPRACTICE RELATIVE VALUE UNITs (RVUs)

Low Volume Override
STS is disappointed to once again have to comment on the same type of malpractice (PLI) RVU errors on a series of congenital heart surgery codes that CMS has made

for the past two years (first communication with CMS on December 8, 2014). These errors are especially troublesome since CMS indicated in the CY 2016 Medicare Physician Fee Schedule Final Rule with Comment Period (November 16, 2015) that it would develop an annual low volume override list in order to address this issue.

STS provided comments on the 2015 Physician Fee Schedule proposed and final rules specifically identifying codes where the malpractice RVUs were incorrectly assigned. In all of the codes identified, the cardiothoracic specialty and subspecialties provide the vast majority of services. Our concern with the PLI RVUs for most of these codes stems from the fact that they are low volume Medicare services for which CMS calculated a blended malpractice risk factor. In the final rule, CMS overrode the claims-based dominant specialty for only three of the codes submitted by STS for reconsideration. The rest of the codes that STS raised questions about were congenital cardiac codes and were among those that were not corrected. By definition, congenital cardiac codes are likely to be low volume in the Medicare population because these surgical procedures are performed predominantly on children and babies. The Agency did issue a correction for many of these codes in January 2016, as noted previously.

These codes continue to have extremely low case volumes in Medicare given the young ages of the patients receiving these services, and that will not change. The Agency has again in the CY 2017 Medicare Physician Fee Schedule Proposed Rule repeated these errors (STS PLI 2017 Error Table). The inability of the Agency to recognize these repeated errors and the repetition of the same errors on this group of services, which are only provided by congenital cardiac surgeons, brings into question the competency and credibility of the Agency and its processes for dealing with codes that have expected low volumes in the Medicare Claims database. This continued error may be perceived as minimal to CMS because these codes, as expected, are infrequently billed to Medicare since the patients affected by congenital defects are rarely in the Medicare age group. However, the Agency's repeated error in assigning incorrect low PLI RVU's has significant negative financial impact on congenital cardiac surgeons whose entire line of work is represented by many of these codes. This error impacts the 300 congenital cardiac surgeons and the 35,000 children that they operate upon each year and has a significant financial impact, estimated at up to a 10 percent reduction in the total payment, for each of these services.

Since it is now reported that greater than 70 percent of private payers in the United States base their reimbursement levels on the Medicare Physician Fee Schedule, CMS' mistake negatively impacts far more than just the payments that CMS makes and therefore places an even greater responsibility on the Agency to ensure the accuracy of their work. Additionally, Medicaid payments are also affected, and in some centers up to 50 percent of the patients seen are covered by Medicaid. ***STS urges CMS to correct these errors.*** Given the feedback that STS has provided on several occasions and given the repetitive error by the Agency with regards to PLI RVU, ***STS urges CMS to provide a rationale for why the errors have not been corrected so that we can provide the appropriate feedback.*** The application of PLI RVU's must reflect the fact that these procedures are only performed by cardiac surgeons and are only performed on children. They should not have PLI RVU's assigned by any other methodology or assumptions about the types of providers who deliver these surgical procedures.

As STS has previously pointed out, we represent the specialty of cardiothoracic surgery, which encompasses adult cardiac surgery, congenital cardiac surgery, and general thoracic surgery. The types of services provided include surgery on the chest wall, esophagus, lungs, mediastinum, trachea and bronchi, as well as all surgery on the heart and great vessels in the chest. There is only one board certification for cardiac and general thoracic surgery through the American Board of Thoracic Surgery. It is very common for thoracic surgeons to perform both cardiac and general thoracic surgery; however, each surgeon has a designation in the Medicare utilization file of either CARDIAC SURGERY or THORACIC SURGERY.

Thus, many obvious cardiac and general thoracic procedures have sizable percentages performed by both "specialty designations."

The malpractice risk factor for both cardiac surgery and general thoracic surgery is naturally very similar. Confusion arises through a failure by CMS to appreciate that "Cardiac Surgery" and "Thoracic Surgery," although separately classified by CMS, actually represent a community of surgical practitioners within a single board-certified specialty that performs "cardiothoracic surgery." As part of our previous recommendations to CMS, STS identified which codes should be classified as CARDIAC SURGERY and which should be classified as THORACIC SURGERY procedures for the low volume specialty overrides for each code that was brought to your attention. Unfortunately, when CMS finalized the low volume override list, they assigned all of the congenital cardiac surgery codes on the low volume override list to THORACIC SURGERY instead of CARDIAC SURGERY as identified in the included **PLI 2017 ERROR TABLE** below.

In the **PLI 2017 ERROR TABLE** below, STS has identified the low volume CARDIAC SURGERY and THORACIC SURGERY codes identifying which errors need to be corrected again as well as newly introduced errors in the CY 2017 MPFS Proposed Rule. We have identified the recommended override specialty for each code. In addition, we have included codes that have been corrected from previous years, but do not all have an identified override specialty indicated. Once again ***STS asks that CMS correct these PLI risk factor errors using the specialty override for low volume procedures and that these corrections be made in the final rule so they are corrected by January 1, 2017***.

STS PLI 2017 ERROR TABLE									
CPT Code	**Short Descriptor**	**MP RVU 2015**	**Fac Total RVU 2015**	**MP RVU 2016**	**Fac Total RVU 2016**	**Proposed MP RVU 2017**	**Proposed Fac Total 2017**	**CMS Override List 2016**	**STS 2014 AND 2017 Recommended Specialty**
Errors previously identified and communicated to CMS in 2014 and 2015 some of which were never corrected and some of which were corrected, but errors have been repeated									
31775	Bronchoplasty; excision stenosis and anastomosis	2.34		2.34	37.53	2.13	36.90	Never fixed THORACIC SURGERY	THORACIC SURGERY
32654	Thoracoscopy, surgical; with control of traumatic hemorrhage	3.46		4.89	34.42	4.89	20.52	Never fixed THORACIC SURGERY	THORACIC SURGERY
33471	Valvotomy pulmonary valve	1.59	36.41	5.44	40.33	3.11	37.96	THORACIC SURGERY	CARDIAC SURGERY
33619	Repair single ventricle	3.37	75.27	11.56	80.01	8.80	76.61	THORACIC SURGERY	CARDIAC SURGERY
33676	Close mult vsd w/resection	2.55	56.05	8.75	62.33	4.99	58.55	THORACIC SURGERY	CARDIAC SURGERY

33677	Cl mult vsd w/rem pul band	2.67	58.24	9.11	64.77	5.17	60.80	THORACIC SURGERY	CARDIAC SURGERY
33692	Repair of heart defects	2.51	54.27	8.57	60.40	4.87	56.7	THORACIC SURGERY	CARDIAC SURGERY
33755	Major vessel shunt	1.56	36.19	5.36	40.06	3.04	37.69	THORACIC SURGERY	CARDIAC SURGERY
33762	Major vessel shunt	1.56	35.32	5.36	39.19	3.04	36.84	THORACIC SURGERY	CARDIAC SURGERY
33768	Cavopulmonary shunting	0.55	11.61	1.89	12.16	1.07	12.13	THORACIC SURGERY	CARDIAC SURGERY
33770	Repair great vessels defect	2.70	58.69	9.26	65.33	5.29	61.34	THORACIC SURGERY	CARDIAC SURGERY
33771	Repair great vessels defect	2.82	60.48	9.63	67.36	5.47	63.2	THORACIC SURGERY	CARDIAC SURGERY
33775	Repair great vessels defect	2.29	51.16	7.83	56.78	4.46	53.38	THORACIC SURGERY	CARDIAC SURGERY
33776	Repair great vessels defect	2.41	54.06	8.24	59.98	4.69	56.38	THORACIC SURGERY	CARDIAC SURGERY
33777	Repair great vessels defect	2.37	52.29	8.11	58.12	5.23	52.23	THORACIC SURGERY	CARDIAC SURGERY
33778	Repair great vessels defect	2.96	65.01	10.13	72.27	6.56	64.88	THORACIC SURGERY	CARDIAC SURGERY
33779	Repair great vessels defect	3.00	65.54	10.25	71.87	5.84	67.46	THORACIC SURGERY	CARDIAC SURGERY
33780	Repair great vessels defect	3.05	65.71	10.41	69.56	5.92	68.66	THORACIC SURGERY	CARDIAC SURGERY
33781	Repair great vessels defect	2.98	64.19	10.24	71.54	5.84	67.14	THORACIC SURGERY	CARDIAC SURGERY
33786	Repair arterial trunk	2.90	63.06	9.93	66.82	5.64	65.87	THORACIC SURGERY	CARDIAC SURGERY
33813	Repair septal defect	1.49	34.10	5.06	37.74	2.86	35.49	THORACIC SURGERY	CARDIAC SURGERY
33822	Revise major vessel	1.23	28.15	4.20	31.15	2.37	29.29	THORACIC SURGERY	CARDIAC SURGERY
33840	Remove aorta constriction	1.49	34.07	5.05	37.59	2.86	35.47	THORACIC SURGERY	CARDIAC SURGERY
33851	Remove aorta constriction	1.53	35.00	5.21	33.74	2.99	36.48	THORACIC SURGERY	CARDIAC SURGERY
43313	Esophagoplasty congenital			6.63	78.60	6.54	78.50	Never Fixed	THORACIC SURGERY
Newly introduced errors									
31786	Remove windpipe lesion			5.78	41.74	3.81	43.26		THORACIC SURGERY

33413	Replacement of aortic valve			14.18	94.7	8.06	94.19		CARDIAC SURGERY
33665	Repair of heart defects			8.32	56.09	6.46	55.5		CARDIAC SURGERY
33670	Repair of heart chambers			8.74	57.84	6.82	55.69		CARDIAC SURGERY
33688	Repair heart septum defect			8.3	55.23	4.69	54.58		CARDIAC SURGERY
33694	Repair of heart defects			8.49	60.1	6.41	54.86		CARDIAC SURGERY
33750	Major vessel shunt			5.3	36.94	3.01	36.28		CARDIAC SURGERY
33788	Revision of pulmonary artery			6.54	47	3.69	44.16		CARDIAC SURGERY
33802	Repair vessel defect			4.38	31.71	2.83	29.98		CARDIAC SURGERY
33814	Repair septal defect			6.34	44.59	3.9	41.92		CARDIAC SURGERY
33920	Repair pulmonary atresia			7.82	55.63	4.4	52.22		CARDIAC SURGERY
33926	Repr pul art unifocal w/cpb			10.68	74.67	6.05	70.06		CARDIAC SURGERY
Previous errors that have been corrected									
33420	Valvotomy, mitral valve; closed heart	3.46		6.19	42.46	6.10	42.34	CARDIAC SURGERY	CARDIAC SURGERY
33606	Anastomosis/artery-aorta	2.18	49.05	7.47	54.41	7.43	54.43	override specialty not indicated–corrected	CARDIAC SURGERY
33611	Repair double ventricle	2.46	54.02	8.43	60.07	8.38	60.1	override specialty not indicated–corrected	CARDIAC SURGERY
33737	Revision of heart chamber	1.56	35.70	5.33	39.55	5.3	39.54	override specialty not indicated–corrected	CARDIAC SURGERY
33764	Major vessel shunt & graft	1.56	36.19	5.36	38.64	5.32	38.52	override specialty not indicated–corrected	CARDIAC SURGERY
33783	Nikaidoh proc w/ostia implt	4.50	96.85	15.43	107.89	15.31	101.66	override specialty not indicated–corrected	CARDIAC SURGERY
33803	Repair vessel	1.39	31.70	4.81	33.55	4.77	33.43	override	CARDIAC

	defect							specialty not indicated–corrected	SURGERY

In order to ensure that CMS has a complete list of cardiothoracic low volume codes, ***STS has provided a table in Appendix A that lists all low volume cardiothoracic codes and the recommended specialty that CMS assign as the low volume override specialty***.

In addition, for CY 2016, as also highlighted by the AMA RUC, CMS finalized a policy to use the average of the three most recent years of available Medicare claims data to determine the specialty mix assigned to each code, which applies to the development of both malpractice RVUs and practice expense (PE) RVUs. Since the proposed PE RVUs include a new year of claims into the three-year average for the first time, CMS seeks comment on the CY 2017 RVUs and whether or not the policy mitigates the need for alternative service-level overrides. ***STS is in alignment with the AMA RUC in its support of the three-year average policy; however, STS also remains concerned that for low volume codes, even a multi-year average creates distortions that cause wide variability for these services***. Under the AMA RUC analysis of the PE and PLI RVUs for low volume services, fluctuations are noted in RVUs, which should otherwise be stable due to the infrequency of these services in the Medicare population. Given these fluctuations, ***STS recommends that CMS accept service-level overrides to determine the specialty PE and request that they use the same low volume override list for cardiothoracic services provided in Appendix A***.

CY 2017 GPCI Update PLI Premium Data Update
CMS proposes to not use the 2014 PLI premium data to update the current 2011 premium data used in the creation of the PLI RVUs. CMS' stated rationale is that to do so would be contrary to its stated policy of only updating premium data every five years for PLI RVUs. ***STS disagrees with this approach and instead recommends that CMS use the 2014 PLI premium data collected as part of the CY 2017 GPCI update in the creation of PLI RVUs for CY 2017.*** If CMS has access to updated data for the PLI Premium Update, it is subjective on the Agency's part to not use it. STS believes the malpractice RVUs should be updated using the most recent data.

MEDICARE TELEHEALTH SERVICES

In the CY 2017 MPFS Proposed Rule, CMS made several proposals related to reimbursement for telehealth services. ***STS is generally supportive of the steps CMS has taken to support the provision of telehealth services where those services can provide value.*** In addition, in response to stakeholder comments, CMS recognizes the potential benefit of critical care consultation services furnished remotely. Given there may be greater resource costs involved in furnishing these services relative to the existing telehealth consultation codes, CMS states that it believes it is important to create a coding distinction between telehealth consultations for critically ill patients and telehealth consultations for other hospital patients. To achieve this goal, CMS proposes to make payment through the following new codes:

- GTTT1 (*Telehealth consultation, critical care, physicians typically spend 60 minutes communicating with the patient via telehealth (initial)*)
- GTTT2 (*Telehealth consultation, critical care, physicians typically spend 50 minutes communicating with the patient via telehealth (subsequent)*)

STS supports both CMS's recognition of the value of particular critical care consultation services being furnished remotely and its decision to create separate Critical Care Telehealth codes to

appropriately value those services.

POTENTIALLY MISVALUED SERVICES UNDER THE FEE SCHEDULE

Valuing Services that Include Moderate Sedation as an Inherent Part of Furnishing the Procedure

- **Moderate Sedation Services (CPT Codes 991X1, 991X2, 991X3, 991X4, 991X5, 991X6).** CMS accepted the AMA RUC recommendations for the wRVUs for codes 991X1, 991X2, 991X3, 991X5 and 991X6. However, CMS did not accept the RUC-recommended wRVU for 991X4 of 1.84. Instead, CMS has proposed a 991X4 wRVU of 1.65.

  CPT code 991X4 is designed to serve as a replacement for deleted CPT code 99149. As has been highlighted by the AMA RUC, according to 2015 Medicare Claims data, 99149 was performed in the emergency room setting 58 percent of the time, indicating that the typical patient is either acutely ill or injured. In addition, the RUC has publicly agreed with specialties that when moderate sedation is performed by a separate physician (991X3-X4, 991X6), the typical case is emergent. It would be inappropriate for CMS to apply the wRVU increment of 991X1 and 991X2 to the relative valuation between 991X3 and 991X4, since these two sets of services represent very different patient populations. For this reason, ***STS strongly believes CMS should adopt the AMA RUC-recommended value of 1.85, which is the 25th percentile wRVU of the RUC survey data for 991X4.***

- **Proposed Valuation of Services Where Moderate Sedation is an Inherent Part of the Procedure (CPT Appendix G Services)**. CMS did not accept the RUC's physician work RVU recommendations for unbundling moderate sedation from the over 400 services in CPT Appendix G. Given that the RUC physician work recommendations are budget neutral and also are consistent with how these services were originally valued, ***STS urges CMS to adopt the RUC-recommended values for the CPT Appendix G Services***.

000-Day Global Services that are Typically Billed with an Evaluation and Management (E/M) Service with Modifier 25

CMS identified services with a 000-day global period billed with an E/M 50 percent of the time or more, on the same day of service, same patient, by the same physician, that have not been reviewed in the last five years with Medicare utilization greater than 20,000. That list includes CPT 32551 (*Tube thoracostomy, includes connection to drainage system (eg, water seal), when performed, open (separate procedure)).* However, CPT 32551 does not actually meet the screening criteria in that it has been surveyed within the last 5 years and not typically reported with an E/M. Therefore, ***STS requests that CMS remove 32551 from the list of codes to be reviewed under the "000-Day Global Services that are Typically billed with an E/M Service with Modifier 25" category.***

Collecting Data on Resources Used in Furnishing Global Services

STS is extremely disappointed with CMS' proposal to mandate data collection from all surgeons on the pre- and post-operative visits and the resources used in furnishing surgical global services, since it contradicts statutory language that authorizes this type of data collection from a "representative sample" of surgeons. Furthermore, the complexity of the plan, as proposed, will create an undue administrative and financial burden on physicians and their staffs, which will have deleterious effects on patient care with relatively little benefit to actual payment accuracy. CMS heard the same message from essentially all commenters at the webinar on August 25, 2016, *Data Collection on Resources Used in Furnishing Global Services*. The overriding concern was that physician and practice resources committed to

fulfilling this uncompensated mandatory exhaustive reporting will likely be diverted from patient care having a potential deleterious effect in that care.

CMS proposes a new series of eight G codes which are intended to collect the pre- and post-operative activities based on place of service, complexity of patient and the completion time (by 10 minutes).

Inpatient	GXXX1	Inpatient visit, typical, per 10 minutes, included in surgical package
	GXXX2	Inpatient visit, complex, per 10 minutes, included in surgical package
	GXXX3	Inpatient visit, critical illness, per 10 minutes, included in surgical package
Office or Other Outpatient	GXXX4	Office or other outpatient visit, clinical staff, per 10 minutes, included in surgical package
	GXXX5	Office or other outpatient visit, typical, per 10 minutes, included in surgical package
	GXXX6	Office or other outpatient visit, complex, per 10 minutes, included in surgical package
Via Phone or Internet	GXXX7	Patient interactions via electronic means by physician/NPP, per 10 minutes, included in surgical package
	GXXX8	Patient interactions via electronic means by clinical staff, per 10 minutes, included in surgical package

Surgical workload is not conducive to the 10-minute proposed structure. ***STS believes that a claims-based data collection approach that is based on reporting in 10 minute increments is completely unworkable and very likely to result in the collection of inaccurate data that would then be inappropriately used to revalue the 10- and 90-day global codes.*** The Congressional directive was for CMS to develop a data collection process from a representative sample of physicians in order to validate existing codes. CMS provides no rationale for how it could possibly take data based on codes built in 10 minute increments to validate the accuracy of values of codes that were never valued in 10 minute increments in the first place. In addition, this type of reporting structure will place a tremendous financial and administrative burden on a small subset of providers as compared to the much larger number of physicians serving Medicare patients. STS calculations show that the G-code model developed by CMS will result in an estimated 10,600,000 G-Codes that will be reported by cardiothoracic surgeons for services provided in the global period. To assess this, we utilized the CMS physician time file and the underlying time components in the RUC database to develop a crosswalk between the proposed G-codes and the E&M codes allocated to each 010- and 090-day global code and identified the associated percentage utilization for cardiac or thoracic surgery procedures. Implementation of the G-codes by CMS will represent a 6.3% increase in an already exhausting 65-hour work week (as documented in the AMA all physician work survey used to develop direct PE inputs for PE/Hour). Physician burnout is a real and increasingly reported event. The Agencies' proposed G-codes, are yet another example of an administrative load placed on providers' shoulders with no demonstrable benefit to patients.

When weighing the undue administrative burden that will be placed on practices against the low quality data that the G-codes are certain to produce, we do not believe it is feasible to implement the G-code data collection proposal. This collection process would be inherently unfair due to the methodological problems and lack of rationale for how the collection of these codes would in any way assess the accuracy of global code values because the codes have a completely different methodological construction. Should CMS finalize the G-codes, the STS recommends that CMS develop and publish its own crosswalk from CPT codes to G-codes and allow stakeholder input to ensure the CMS assumptions are correct. This transparency is important to ensure correct assumptions related to the global services, enable proper

education of physicians, allow accurate estimates of the imposed burdens, and provide details of compliance and its cost.

STS recommends that CMS create a representative sample of surgical services using the criteria outlined by the RUC:

- Medicare volume of at least 10,000 and/or $10 million in allowed charges; and
- At least 100 separate physicians performed the procedure.
- The sample should include medium and small practices, not just large hospital-based practices that often represent modified practice patterns which are different than those of the majority of the practicing physicians in suburban and rural areas.

STS recommends that CMS collect the level of visits for specifically identified, high volume, broadly performed surgical procedures by a process separate from claims reporting.

Ideally CMS will work with stakeholders to identify alternative methods of collecting the necessary data to ensure correct valuation of the global services. There are several suggestions that have been made by stakeholders as to how CMS can identify and collect the necessary data to ensure proper valuations of services in the global, which are less burdensome to the provider. Such suggestions include the utilization of targeted surveys to collect data; identification of visits using existing code 99024; data collection through portals and others.

This new administrative burden will be overwhelming, particularly since surgeons are now facing new reporting requirements under MACRA. It is not clear to us how this reporting fits into all the other programs that CMS has proposed this year, including mandatory bundled payments for coronary artery bypass grafting. Educating our membership and implementing these unfamiliar complex G-codes by January 1, 2017 is an impossible task with a totally unrealistic timeline. Successful implementation goes far beyond education of providers since it also requires putting systems and processes in place to capture these codes and submit them on claims.

If CMS were to persist in this endeavor, STS recommends delaying implementation beyond January 1, 2017.

IMPROVING PAYMENT ACCURACY FOR PRIMARY CARE, CARE MANAGEMENT SERVICES, AND PATIENT-CENTERED SERVICES

Improving Payment Accuracy for Care of People with Disabilities
In order to improve payment accuracy and help ameliorate potential disparity in access and quality for beneficiaries with mobility-related disabilities, CMS proposes the creation of a new add-on G-code to describe the additional services furnished in conjunction with E/M services to beneficiaries with disabilities that impair their mobility:

GDDD1: *Resource-intensive services for patients for whom the use of specialized mobility-assistive technology (such as adjustable height chairs or tables, patient lifts, and adjustable padded leg supports) is medically necessary and used during the provision of an office/outpatient evaluation and management service visit (Add-on code, list separately in addition to primary procedure)*

The add-on code could be billed, when the additional resources described by the code are medically necessary and used in the provision of care, with:

- New and established patient office/outpatient E/M codes (CPT codes 99201 through 99205, and

99212 through 99215)
- Transitional care management codes (CPT codes 99495 and 99496),

CMS proposes to value the physician work and time for HCPCS code GDDD1 through a direct crosswalk from CPT code 99212 (*Level 2 office or other outpatient visit for the evaluation and management of an established patient*) and is therefore proposing a work RVU of 0.48 and a physician time of 16 minutes.

STS supports initiatives that recognize disability that may affect physician work, clinical staff time and office equipment. Providing additional payment would improve access and eliminate many of the potential discriminatory behaviors cited by CMS. In addition, it recognized the increased physician work that is sometimes required.

STS is concerned regarding several aspects of the proposal, however.

1. The medical necessity requirements to bill this code are specific to mobility-related disability and are unclear. CMS provides an estimate of the number of Medicare Beneficiaries who will be eligible, but does not explain its methodology.
2. There is an imperfect relationship between the need for mobility-assistance devices and the impact that such disabilities have on physician work, clinical labor, and office equipment. This would particularly be true for a patient with a temporary disability, who may not qualify for or need such devices in the short-term yet have all the patient features described for qualification.
3. STS has concerns that an additional co-payment cost is a discriminatory burden for Medicare Beneficiaries. Although beneficiaries are responsible for these additional costs when they relate to the number and severity of their conditions, public accommodation is usually made for the specific designation of "disability." Thus, if possible, CMS should consider methods to waive the co-payment requirement for this add-on G-code
4. The G-code definition, requirements, and payment recommendations do not appear to have undergone robust discussion from a variety of stakeholders including multispecialty experts in code development and valuation. Implementation on January 1, 2017 seems premature and risks a large number of unintended consequences as well as abuse.
5. By limiting use of this add-on code to independently billed E&M services, a large number of Medicare Beneficiaries will not receive the intended benefits when seen within the global period of an 010 and 090 procedure. Many of these patients have pre-existing mobility-related disorders that would qualify them for the add-on code when an E&M service is provided independently, but would not under this proposal as stated. Since this possibility exists for all procedural codes, independent of the degree to which a procedure results in a temporary mobility-related disability, the add-on G-code should be unrestricted and allowed within all global periods.
6. As alluded to above, many major surgical procedures engender temporary mobility-related disability that persists throughout their global period. If CMS permits the use of this code independent of specific E&M independent billing, as suggested in 5 above, medical necessity may not be apparent through chronic diagnoses or claims-based durable equipment information. This reinforces a need to better understand the medical necessity qualification metrics prior to implementation. Here, we emphasize that it will be important to utilize this add-on code where it will promote appropriate office visits as described in the CMS justification for it. Postoperative visits after major surgical procedures are imperative and often life-saving in the early detection of complications or patient decline in the unsupervised outpatient environment. This G-code, if it has its intended effects, will improve Medicare Beneficiary outcomes after many major surgical procedures.

In conclusion STS recommends:

1. We recommend delay in implementation to permit robust consideration and diligence regarding the code definition, medical necessity requirements, add-on code relationships, and valuation.

This would best be accomplished by engaging the CPT/RUC process as well as extensive public comment with a more refined proposal. CMS could certainly implement a new G-code (or modify the proposed G-code if finalized) at any time in this process pending final outcomes of the standard process.

2. If finalized, we recommend the publication of explicit medical necessity indicators to ensure adoption for patients in need and minimize the potential for abuse.
3. We recommend that CMS develop methods to protect patients from additional personal cost related to the add-on G-code.
4. We recommend that the G-code be allowed as an add-on to all 010 and 090 day global procedure codes (within their global time periods) to ensure there is universal benefit for all eligible patients. Again, clear medical necessity standards would need to be established and met for the use of this code.

Non Face-to-Face Prolonged Services
CMS proposes the establishment of a separate payment for non-face-to-face prolonged E/M service codes as an alternative to the current bundled status. ***STS supports the CMS observation that revising the current bundled status will help improve accuracy for cognitive service care.*** In addition, CMS proposes to implement the following wRVU values:

- CPT 99354 (*Prolonged evaluation and management or psychotherapy service(s) (beyond the typical service time of the primary procedure) in the office or other outpatient setting requiring direct patient contact beyond the usual service; first hour (List separately in addition to code for office or other outpatient Evaluation and Management or psychotherapy service)*: wRVU of 2.33
- CPT 99358 (*Prolonged evaluation and management service before and/or after direct patient care; first hour*: wRVU of 2.10
- CPT 99359 (*Prolonged evaluation and management service before and/or after direct patient care; each additional 30 minutes (List separately in addition to code for prolonged service*): wRVU of 1.00.

STS supports the adoption of these AMA RUC-recommended values for non-face-to-face prolonged services.

VALUATION OF SPECIFIC CODES

Time/Intensity
CMS has acknowledged that physician work intensity per minute is typically not linear and that reductions in RVUs in strict proportion to changes in time is inappropriate. ***STS is fully supportive of these statements and that the usage of time ratios to reduce work RVUs is typically not appropriate given that a change in time can also result in a change in work intensity per minute. However, STS is very concerned that CMS has still not taken steps to accurately reflect intensity in its value recommendations.*** Clear examples within this rule that illustrate situations where CMS has ignored intensity as a factor when valuing services include the proposed value for the valvuloplasty code 334X2 (discussed in detail later in these comments) and the evaluative procedures for physical therapy and occupational therapy codes (97X61, 97X62, 97X63, 97X64, 97X65, 97X66, 97X67, 97X68). Services such as the proposed physical and occupational therapy codes, which are defined by low, moderate, and high complexity, clearly represent increasing levels of intensity, time, and patient complexities for the services provided. CMS' proposal to value the low, moderate, and high complexity physical therapy and occupational therapy services the same at a work RVU of 1.20 for all levels of complexity clearly indicates that no consideration of variations in intensity have been accounted for in the services.

Regardless of CMS' concerns regarding coding structure, budget neutrality, potential impact on coding practices, or other issues, each service in the fee schedule should be valued according to the services represented individually and in relation to the family of services in order to ensure correct valuation within the specialty and across the fee scheduled. By placing the same value on clearly different services that vary both in intensity and in the types of patients treated, CMS has once again ignored their statutory requirement to consider time and intensity in the valuation of services. This policy will potentially put the physicians who treat this patient population and the patient's themselves at risk. ***STS strongly encourages CMS accept the RUC recommended values for the physical and occupational therapy services, which take into account the intensity, time and patient variation involved in these services***. ***Similarly STS strongly encourages CMS accept the RUC recommended values for*** **valvuloplasty code 334X2 (discussed in detail later in these comments).**

In addition, CMS requests input on "whether, within the statutory confines, there are alternative suggestions as to how changes in time should be accounted for when it is evident that the survey data and/or the RUC recommendation regarding the overall work RVU do not reflect significant changes in the resource costs of time for codes describing PFS services" as well as "on potential alternatives, including the application of the reverse building block methodology, to making the adjustments that would recognize overall estimates of work in the context of changes in the resource of time for particular services."

STS is in agreement with the AMA RUC in that we do not agree with any suggested methodology to use a "reverse building block methodology" to systematically reduce work RVUs for services. The reverse building block methodology, or any other purely formulaic approach, should never be used as the primary methodology to value services. It is highly inappropriate due to the fact that magnitude estimation was used to establish work RVUs for services in the RBRVS.

There are many reasons for changes in time related to physician work. Currently CMS assumes that just because a time component had changed, the work should go up or down correspondingly. This assumption does not account for changes in technology or services over time that provide some time savings during an operation but do not actually impact or reflect the complexity of the patient, technical skills or judgments involved in the operation, or the intensity related to the procedure. Thus, although gains in time may come from tools used for a surgical approach or from closure or suturing techniques, the work related to the core aspects of the procedure has not changed in any significant way and use of higher level technology frequently makes a procedure more complex, resulting in increased intensity over time. Alternatively, changes in technology and increases in knowledge gained over time may completely shift the types of procedures or services that are available to patients, allowing for treatment options that were not previously available to patients. Additionally, changes in the patient population or in how a procedure is performed will also impact the time, but not necessarily the complexity or intensity of the procedure. The RUC has started to review the reasons for the time changes during the valuation discussions and now includes this information in the rationale for each code that is evaluated. If CMS seeks specific information to substantiate time and intensity changes associated with services, they should specify these clearly so stakeholders can provide the necessary data detailing the changes over time. We wish to point out that there is an inherent limitation in all valuation methodologies when patient populations are defined only by the procedures that are performed. Assumptions by the Agency regarding the patient populations receiving a given operation or service must be informed by data from the providers of these services and cannot be assumed to be the same over time. Advances in technology and experience with new techniques frequently lead to expansion of these therapies to new and more complex patient populations, which may not be simply reflected in time.

Valvuloplasty (CPT codes 334X1 and 334X2)

The CPT Editorial Committee created new codes to describe valvuloplasty procedures and deleted existing CPT code 33400 (*Valvuloplasty, aortic valve; open, with cardiopulmonary bypass*) in order to reflect changes in the practice of aortic valve repair and the patient populations undergoing repair versus valve replacement treatments. New CPT code 334X1 represents a simple valvuloplasty procedure and new CPT code 334X2 describes a more complex valvuloplasty procedure.

STS appreciates the CMS consideration of RUC recommended RVUs for two new valvuloplasty codes (334X1 and 334X2***). STS agrees with the CMS proposal to accept the RUC recommended work value of 35.00 for code 334X1 (simple valvuloplasty). STS disagrees with the CMS proposal to assign a work RVU of 41.50 for CPT code 334X2 (complex valvuloplasty) and urges CMS to accept the RUC recommended RVU of 44.00 for this code***.

CPT 33400 was previously valued in 2005, and at that time and prior only simple valvuloplasty repairs were performed. In the new codes, the work of a simple repair is described in code 334X1. STS estimated that 70 percent of the services will be reported with the new code 334X2 and only 30 percent will be reported with code 334X1 due to the shift in services, changes in technology, and advances in knowledge of the function and treatment of the aortic valve. The understanding and use of complex repairs in treating aortic valves has evolved since 2005 when 33400 was originally valued. Consequently, there is no justifiable correlation in work between the new code (334X2) and the older code (33400). As mentioned, the work in 33400 is more accurately related to 334X1, and our survey data reflects a change with a recommended decrease in value to 35.00 RVU for this service.

The table below shows codes that support the recommended value based on similar intra-services times including the crosswalk code used to recommend a value (33315) and other cardiac codes with similar intra-service times and the changes in times between the current code (33400) and the new code 334X1:

CPT Code	Long Description	IWPUT	Work RVU	Intra-Service Time	Total time	2015 MC Freq	RUC Review Date
Cross walk 33315	Cardiotomy, exploratory (includes removal of foreign body, atrial or ventricular thrombus); with cardiopulmonary bypass	0.1060	35.00	180	621	325	Oct-10
334X1	Valvuloplasty, aortic valve, open, with cardiopulmonary bypass; simple (ie, valvotomy, debridement, debulking and/or simple commissural resuspension)	0.1080	35.00	180	622	Est: 73	
33710	Repair sinus of Valsalva fistula, with cardiopulmonary bypass, with repair of ventricular septal defect	0.0955	37.50	200	656	1	Oct-10
33405	Replacement, aortic valve, with cardiopulmonary bypass; with prosthetic valve other than homograft or stentless valve	0.1055	41.32	197	786	28,620	Apr-12
Current 33400	Valvuloplasty, aortic valve; open, with cardiopulmonary bypass	0.1060	41.50	211	742	243	Aug-05

Code 334X2 represents new work that has led to changes in how aortic valves are surgically managed. Today, many valves that previously were replaced or deemed inoperable are now being repaired using these new techniques. This has resulted in the creation of two, distinct subsets of patients eligible for aortic valve repair: patients in whom simple aortic valve repair techniques are adequate (similar in time and intensity to patients undergoing aortic valve replacement) and a significantly larger sub population of patients in whom complex surgical repair is now offered.

CMS cites the total time difference between the existing code 33400 and the new code 334X2, where the survey results for CPT 334X2 showed the median intraservice time to be similar but total service time to be decreased as an indication that the recommended value for 334X2 is not warranted. Again, CMS should be comparing the times for the existing code 33400 with the new code 334X1, which has similar procedural work. Code 334X2 should not be compared directly to 33400 for reasons previously discussed. The fact that intraservice times for code 334X2 and 33400 have changed slightly is irrelevant and merely reflects improvements in technology that have occurred over time. 334X2 should be considered as new technology and, as such, did not exist during the development and use of CPT code 33400. These more basic techniques of aortic valve repair are represented in the new code 334X1. The techniques and work described in CPT code 334X2, therefore, cannot be compared to that of 33400 in any capacity related to time and intensity. The patient populations that can be treated with 334X2 and techniques used to accomplish the repairs is totally different than those reflected in 33400. The change in time related to simple valvotomy repairs and how the work has changed is reflected in time decrease in 33400 (211 minutes) and 334X1 (180 minutes) and that RVU was adjusted downward according to the change service (from 41.50 to 35.00 work RVUs). The number of estimated services provided in the future should not impact how the RVUS are assigned, instead, the work related to the time and intensity of the services should be used to value the procedures. The issue of significantly increased intensity associated with the work required in complex valve repair, relative to that of simple valve repairs, must be taken into account. The difference in total time between 334X2 and 33400 is minimal and related to the difference in the length of stay and the visit pattern for the new code 334X2. Aortic valve repairs are predominately performed in the congenital cardiac patient population. However, complex aortic valve repairs are now being performed in increasing numbers of adult cardiac patients in whom aortic valve replacement was previously the only surgical option. Although the dominant population will still be congenital cardiac patients, the ability to perform complex valvuloplasty procedures introduces a broader mix of patients that can avoid aortic valve replacement and, now, have complex aortic valve repair procedures. Extant literature at the time 33400 was last valued reflected knowledge and techniques that comprise simple valve repairs, such as simple valvotomy, debridement and commissural resuspension. Within the past 10 years, the literature documents the shift in knowledge describing the aortic valve pathology and concepts of anatomic geometry resulting in new techniques such as leaflet resections, extensions, reconstructions and annuloplasty. The emerging literature within the past10 years supports these changes in the aortic valve repair techniques as indicated in the attached literature: Curr Opin Cardiol. 2016 Mar;31(2):154-61. Semin Thorac Cardiovasc Surg. 2015 Autumn;27(3):271-87 Interact Cardiovasc Thorac Surg. 2012 Oct;15(4):644-50.

Some of these patients will be younger and healthier patients of both adult and congenital populations and some will still be considered more complex and sicker patients. The decreased length of stay and shift in the postoperative pattern reflects the shift in the patient population that can now be treated with complex valve repair procedures. However, the change in total time does not diminish the change that has occurred in the complexity and intensity of the procedure.

The recommended values from STS of 35.00 RVUs for code 334X1 and 44.00 RVUs for code 334X2 results in a budget savings for Medicare compared to the current value of code 33400 at 41.50 RVUs. See

calculations below based on the 2014 and 2015 Frequency Data.

Medicare Frequency		**2014**	**Total**	**2015**	**Total**
33400			**289**		**243**
334x1 estimated at 30%	30%	86.7		72.9	
334X2 estimated at 70%	70%	202.3		170.1	
RVU Impact for RUC recommendation					
33400 RVU	41.50		**11,993.50**		**10084.5**
334x1 RVU at 30%	35.00	3034.5	**11,935.70**	2551.5	**10035.9**
334X2 RVU at 70%	44.00	8901.2		7484.4	
Net reduction in RVUs			**-57.8**		**-48.6**
RVU Impact for CMS recommendation					
33400 RVU	41.50		**11993.5**		**10084.5**
334x1 RVU at 30%	35.00	3034.5	**11430.0**	2551.5	**9610.7**
334X2 RVU at 70%	41.50	8395.45		7059.15	
Net reduction in RVUs			**-563.6**		**-473.9**

There are several codes in the cardiac family that support the recommended value of 44.00 for code 334X2. To disregard the markedly increased complexity of the work associated with this new code (334X2) will necessarily create a **rank order anomaly** for this code with respect to other codes in the cardiac family of services with similar intra-service times, some of which represent other types of complex valve repairs:

CPT Code	Long Description	IWPUT	Work RVU	Intra-Service Time	Total time	2015 MC Freq	RUC Review Date
33426	Valvuloplasty, mitral valve, with cardiopulmonary bypass; with prosthetic ring	0.1110	43.28	205	776	4553	Aug-05
33512	Coronary artery bypass, vein only; 3 coronary venous grafts	0.1030	43.98	213	832	1550	Aug-05
334X2	Valvuloplasty, aortic valve, open, with cardiopulmonary bypass; complex (eg, leaflet extension, leaflet resection, leaflet reconstruction or annuloplasty)	0.1300	44.00	210	676	Est: 170	
33427	Valvuloplasty, mitral valve, with cardiopulmonary bypass; radical reconstruction, with or without ring	0.1190	44.83	221	737	3278	Aug-05
33464	Valvuloplasty, tricuspid valve; with ring insertion	0.1010	44.62	205	871	3429	Aug-05
33010	Pericardiectomy, subtotal or complete; with cardiopulmonary bypass	0.0970	45.00	205	839	211	Oct-10
33542	Myocardial resection (eg, ventricular aneurysmectomy)	0.1120	48.21	207	848	172	Aug-05

33465	Replacement, tricuspid valve, with cardiopulmonary bypass	0.1020	50.72	211	972	436	Aug-05

STS requests refinement for code 334X2.

Esophageal Sphincter Augmentation (CPT codes 432X1 and 432X2)

The CPT Editorial Committee created new codes related to esophageal sphincter augmentation, codes 432X1 and 432X2. STS is extremely disappointed that CMS failed to accept the RUC recommended RVUs of 10.13 and 10.47 for codes 432X1 and 432X2 respectively. CMS recommends lowered RVUs of 9.03 for 432X1 and 9.37 for 432X2. STS is disappointed by the large number of Thoracic Surgery codes related to lung and esophageal procedures where CMS has disagreed with the RUC recommendations in recent years. It is notable that CMS has never proposed a higher RVU for any code, only lower.

CPT code	Descriptor	RUC Rec RVU	CMS Proposed RVU	CMS Work RVU Decision
432X1	Laparoscopy, surgical, esophageal sphincter augmentation procedure, placement of sphincter augmentation device (ie, magnetic band), including cruroplasty when performed	10.13	9.03	Disagree
432X2	Removal of esophageal sphincter augmentation device	10.47	9.37	Disagree

The specialty societies (STS, SAGES) and their expert panels agreed with the survey time and visit estimates for codes 432X1 and 432X2. However, they felt the survey median and 25th percentile work RVUs for code 432X1 (RVUs 22 and 20 respectively) and for code 432X2 (RVUs 19.06 and 16 respectively) were inconsistent with the total physician work for 432X1 and 432X2 and not relative to other procedures. Therefore, both the specialty societies and RUC recommended that CPT code 432X1 be crosswalked to CPT code 19301 *Mastectomy, partial (eg, lumpectomy, tylectomy, quadrantectomy, segmentectomy* (work RVU = 10.13) since both require the same intra-service time and almost identical total time. Additionally, both services require similar work intensity to perform and are both outpatient procedures.

For 432X1, CMS disagreed with the RUC recommendations and instead compare it to CPT 43180 (*Esophagoscopy, rigid, transoral with diverticulectomy of hypopharynx or cervical esophagus (eg, Zenker's diverticulum), with cricopharyngeal myotomy, includes use of telescope or operating microscope and repair, when performed*) with a wRVU of 9.03 and identical intra-service time and similar total time. Because CMS believes the overall intensity of 432X1 and 43180 is similar, CMS proposes a direct crosswalk to CPT 43180. **STS disagrees with this crosswalk.** Importantly, CMS' crosswalk to CPT 43180 has 10 minutes less immediate post-service time and one less 99213 post-operative visit compared to 432X1. The crosswalk (19301) proposed by the specialty societies' expert panel was one with which they were very familiar and was performed by some members allowing them to reliably compare the intensities of these two codes. STS would like CMS to explain why they feel that 19301 is not an appropriate crosswalk. Additionally, STS requests that CMS explain why the Agency feels the intensities of 43180 and 432X1 are similar. For CPT 432X1, *STS* disagrees with CMS proposed RVU of 9.03 and crosswalk to CPT 43180 and recommends that CMS use the **AMA RUC recommended crosswalk to CPT code 19301 (Mastectomy, partial (eg, lumpectomy, tylectomy, quadrantectomy,**

segmentectomy) and recommended wRVU of 10.13. Both services require the same intra-service time and almost identical total time. Additionally, both services require similar work intensity to perform and are both outpatient procedures**.**

For CPT code 432X2, the specialty societies and RUC recommended a work RVU of 10.47. CMS again disagrees instead using the increment between the RUC-recommended work RVU for this code and CPT code 432X1 (0.34 RVUs) to develop CMS' proposed work RVU of 9.37. Why CMS does not agree with the RUC proposed RVU of 10.13 for 432X1 yet does agree with the RUC increment of 0.34 RVU between 432X1 and 432X2 is perplexing. In their valuation of 432X2, the specialty societies and RUC recommended that 432X2 be crosswalked to CPT 47562 ***(Laparoscopy, surgical; cholecystectomy)*** with a work RVU of 10.47 and 80 minutes intra-service time. In their recommendations, the specialty societies and RUC noted that although CPT 47562 requires more intra-service time than the aggregate survey median time for 432X2, the median intra-service time may be understated because of the number of people without experience. The specialty societies and RUC also noted that the total time for these services is nearly identical and both require similar work and intensity. **STS disagrees with the CMS proposed RVU of 9.47 for 432X2, but instead agrees with the AMA RUC recommendation to create a direct crosswalk to CPT 47562 (Laparoscopy, surgical; cholecystectomy) with a work RVU of 10.47.**

STS requests refinement for codes 432X1 and 432X2.

APPROPRIATE USE CRITERIA FOR ADVANCED DIAGNOSTIC IMAGING SERVICES

Outlier Clinical Priority Areas
In implementing the provisions in the Protecting Access to Medicare Act of 2014 (PAMA) related to the use of appropriate use criteria (AUC) for advanced diagnostic imaging services, CMS makes proposals related to the portion of the program where CMS must identify outlier ordering professionals whereby identified outliers (i.e. professionals with low adherence to applicable appropriate use criteria) would be subject to prior authorization beginning January 1, 2020. In the CY 2016 rule, CMS proposed to identify outliers only in those focus areas referred to as clinical priority areas. In this rule, CMS proposes the actual clinical priority areas. CMS proposes to include the following eight (8) clinical priority areas:

- Chest pain (including angina, suspected myocardial infarction and suspected pulmonary embolism)
- Abdominal pain (any location including flank pain)
- Headache (non-traumatic and traumatic)
- Altered mental status
- Low back pain
- Suspected stroke
- Cancer of the lung (primary or metastatic, suspected or diagnosed)
- Cervical or neck pain

STS generally agrees with CMS' approach to limit the application of the outlier and prior authorization provisions to particular clinical priority areas. However, we offer input on several of the areas proposed by CMS.

First, under the *chest pain* proposal, CMS notes that it considered breaking out *suspected pulmonary embolism* as a separate priority clinical area. While it is not proposed separately from *chest pain*, CMS asks for comment on whether *suspected pulmonary embolism* should be included as a stand-alone clinical

priority area. ***STS believes that CMS should separate suspected pulmonary embolism into a stand-alone clinical priority area***. In addition to the obvious clinical differences, we believe that for purposes of identifying outliers it is important to analyze adherence to AUC separately for *suspected pulmonary embolism.* In addition, the AUC utilized for the symptoms described under *chest pain* will trigger different AUC, and we believe that in order to assess the availability of AUC for the different symptoms, it could be misleading to group these symptoms and conditions together.

Second, ***STS observes that seven of the eight clinical priority areas describe symptoms or "suspected" conditions-*** as one would expect in a program dedicated to diagnostic imaging. However, CMS also includes a clinical priority area in *cancer of the lung* that includes diagnosed cases rather than symptoms or a "suspected" condition. ***STS believes CMS should remove cancer of the lung as one of the clinical priority areas for purposes of the outlier identification proposals.*** We believe this should be done to ensure an even application of the program, at least in the initial years of implementation.

Significant Hardship Exception
PAMA provides authority for the Secretary to provide an exception for ordering professionals that consultation with applicable AUC would result in a significant hardship (e.g. the case of practicing in a rural area without sufficient Internet access). CMS proposes to codify this exception by stating that ordering professionals who are granted a significant hardship exception for purposes of the Medicare EHR Incentive Program would also be granted a significant hardship exception for purposes of the AUC consultation requirement. CMS proposes that practitioners would be excepted from consulting AUC in the same year in which the practitioner is excepted from the EHR Incentive Program payment adjustment. STS is generally supportive of this proposal. However, we are concerned that the CMS proposal does not take into consideration "hospital-based physicians" under the EHR Incentive Program rules who are not eligible to participate in the program, and therefore, would be under no obligation to seek the EHR Incentive Program significant hardship exception. Given that these AUC consultation responsibilities do not apply to the inpatient setting, we understand that there would be few instances in which "hospital-based physicians" (as defined under the EHR Incentive Program as having submitted 90 percent or more of claims for professional services with site-of-service identifiers for inpatient or emergency department) would be required to consult and report consultation with AUC. However, ***to ensure a sound policy that does not inappropriately affect work flow and care delivery, STS requests that CMS include a mechanism for "hospital-based physicians" (as defined under the EHR Incentive Program) to apply for a significant hardship exception under the AUC program***.

THE VALUE-BASED MODIFIER AND PHYSICIAN FEEDBACK PROGRAM

CMS proposes to update the VM informal review policies and establish how the quality and cost composites under the VM would be affected if unanticipated issues arise.

In general, ***STS supports CMS' intent to update the VM informal review policies to establish how the quality and cost composites under the VM would be affected if unanticipated issues arise***. We believe CMS' proposals related to the informal review process are positively intended to hold eligible professionals harmless should issues such as errors in the quality data provided arise by generally classifying the Tax Identification Number's (TIN's) quality and/or cost composite as average. However, we note that CMS' proposals to classify the TIN's quality and/or cost composite as average should unexpected issues arise rather than recalculate data, may put high performers at a disadvantage, since high performing eligible professionals would not be able to receive an incentive under these proposed policies. ***While we support CMS' proposals related to the VM informal inquiry process, we encourage CMS to find a way to continue to incentivize deserving eligible professionals for high performance when errors occur that are beyond their control***.

Thank you for considering our comments. Should you have any questions, please contact STS Director of Government Relations Courtney Yohe at 202-787-1222 or cyohe@sts.org.

Sincerely,

Joseph E. Bavaria, MD
President

Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE

Appendix A

CPT Code	Long Descriptor	STS Recommended Specialty Override
19272	Excision of chest wall tumor involving ribs, with plastic reconstruction; with mediastinal lymphadenectomy	THORACIC SURGERY
21502	Incision and drainage, deep abscess or hematoma, soft tissues of neck or thorax; with partial rib ostectomy	THORACIC SURGERY
21510	Incision, deep, with opening of bone cortex (eg, for osteomyelitis or bone abscess), thorax	THORACIC SURGERY
21632	Radical resection of sternum; with mediastinal lymphadenectomy	THORACIC SURGERY
21740	Reconstructive repair of pectus excavatum or carinatum; open	THORACIC SURGERY
21743	Reconstructive repair of pectus excavatum or carinatum; minimally invasive approach (Nuss procedure), with thoracoscopy	THORACIC SURGERY
31760	Tracheoplasty; intrathoracic	THORACIC SURGERY
31766	Carinal reconstruction	THORACIC SURGERY
31770	Bronchoplasty; graft repair	THORACIC SURGERY
31775	Bronchoplasty; excision stenosis and anastomosis	THORACIC SURGERY
31780	Excision tracheal stenosis and anastomosis; cervical	THORACIC SURGERY
31781	Excision tracheal stenosis and anastomosis; cervicothoracic	THORACIC SURGERY
31786	Excision of tracheal tumor or carcinoma; thoracic	THORACIC SURGERY
31805	Suture of tracheal wound or injury; intrathoracic	THORACIC SURGERY
32035	Thoracostomy; with rib resection for empyema	THORACIC SURGERY
32140	Thoracotomy; with cyst(s) removal, includes pleural procedure when performed	THORACIC SURGERY
32151	Thoracotomy; with removal of intrapulmonary foreign body	THORACIC SURGERY
32200	Pneumonostomy, with open drainage of abscess or cyst	THORACIC SURGERY
32215	Pleural scarification for repeat pneumothorax	THORACIC SURGERY
32442	Removal of lung, pneumonectomy; with resection of segment of trachea followed by broncho-tracheal anastomosis (sleeve pneumonectomy)	THORACIC SURGERY
32445	Removal of lung, pneumonectomy; extrapleural	THORACIC SURGERY
32488	Removal of lung, other than pneumonectomy; with all remaining lung following previous removal of a portion of lung (completion pneumonectomy)	THORACIC SURGERY
32491	Removal of lung, other than pneumonectomy; with resection-plication of	THORACIC

Appendix A

Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE		
CPT Code	**Long Descriptor**	**STS Recommended Specialty Override**
	emphysematous lung(s) (bullous or non-bullous) for lung volume reduction, sternal split or transthoracic approach, includes any pleural procedure, when performed	SURGERY
32503	Resection of apical lung tumor (eg, Pancoast tumor), including chest wall resection, rib(s) resection(s), neurovascular dissection, when performed; without chest wall reconstruction(s)	THORACIC SURGERY
32504	Resection of apical lung tumor (eg, Pancoast tumor), including chest wall resection, rib(s) resection(s), neurovascular dissection, when performed; with chest wall reconstruction	THORACIC SURGERY
32604	Thoracoscopy, diagnostic (separate procedure); pericardial sac, with biopsy	THORACIC SURGERY
32654	Thoracoscopy, surgical; with control of traumatic hemorrhage	THORACIC SURGERY
32658	Thoracoscopy, surgical; with removal of clot or foreign body from pericardial sac	THORACIC SURGERY
32661	Thoracoscopy, surgical; with excision of pericardial cyst, tumor, or mass	THORACIC SURGERY
32664	Thoracoscopy, surgical; with thoracic sympathectomy	THORACIC SURGERY
32665	Thoracoscopy, surgical; with esophagomyotomy (Heller type)	THORACIC SURGERY
32671	Thoracoscopy, surgical; with removal of lung (pneumonectomy)	THORACIC SURGERY
32672	Thoracoscopy, surgical; with resection-plication for emphysematous lung (bullous or non-bullous) for lung volume reduction (LVRS), unilateral includes any pleural procedure, when performed	THORACIC SURGERY
32800	Repair lung hernia through chest wall	THORACIC SURGERY
32810	Closure of chest wall following open flap drainage for empyema (Clagett type procedure)	THORACIC SURGERY
32820	Major reconstruction, chest wall (posttraumatic)	THORACIC SURGERY
32852	Lung transplant, single; with cardiopulmonary bypass	CARDIAC SURGERY
32900	Resection of ribs, extrapleural, all stages	THORACIC SURGERY
32905	Thoracoplasty, Schede type or extrapleural (all stages);	THORACIC SURGERY
32906	Thoracoplasty, Schede type or extrapleural (all stages); with closure of bronchopleural fistula	THORACIC SURGERY
32940	Pneumonolysis, extraperiosteal, including filling or packing procedures	THORACIC SURGERY
33050	Resection of pericardial cyst or tumor	THORACIC SURGERY
33130	Resection of external cardiac tumor	CARDIAC

Appendix A

Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE		
CPT Code	**Long Descriptor**	**STS Recommended Specialty Override**
		SURGERY
33140	Transmyocardial laser revascularization, by thoracotomy; (separate procedure)	CARDIAC SURGERY
33236	Removal of permanent epicardial pacemaker and electrodes by thoracotomy; single lead system, atrial or ventricular	CARDIAC SURGERY
33237	Removal of permanent epicardial pacemaker and electrodes by thoracotomy; dual lead system	CARDIAC SURGERY
33250	Operative ablation of supraventricular arrhythmogenic focus or pathway (eg, Wolff-Parkinson-White, atrioventricular node re-entry), tract(s) and/or focus (foci); without cardiopulmonary bypass	CARDIAC SURGERY
33251	Operative ablation of supraventricular arrhythmogenic focus or pathway (eg, Wolff-Parkinson-White, atrioventricular node re-entry), tract(s) and/or focus (foci); with cardiopulmonary bypass	CARDIAC SURGERY
33254	Operative tissue ablation and reconstruction of atria, limited (eg, modified maze procedure)	CARDIAC SURGERY
33255	Operative tissue ablation and reconstruction of atria, extensive (eg, maze procedure); without cardiopulmonary bypass	CARDIAC SURGERY
33256	Operative tissue ablation and reconstruction of atria, extensive (eg, maze procedure); with cardiopulmonary bypass	CARDIAC SURGERY
33258	Operative tissue ablation and reconstruction of atria, performed at the time of other cardiac procedure(s), extensive (eg, maze procedure), without cardiopulmonary bypass (List separately in addition to code for primary procedure)	CARDIAC SURGERY
33261	Operative ablation of ventricular arrhythmogenic focus with cardiopulmonary bypass	CARDIAC SURGERY
33310	Cardiotomy, exploratory (includes removal of foreign body, atrial or ventricular thrombus); without bypass	CARDIAC SURGERY
33320	Suture repair of aorta or great vessels; without shunt or cardiopulmonary bypass	CARDIAC SURGERY
33321	Suture repair of aorta or great vessels; with shunt bypass	CARDIAC SURGERY
33330	Insertion of graft, aorta or great vessels; without shunt, or cardiopulmonary bypass	CARDIAC SURGERY
33335	Insertion of graft, aorta or great vessels; with cardiopulmonary bypass	CARDIAC SURGERY
33364	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open iliac artery approach	CARDIAC SURGERY
33367	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with percutaneous peripheral arterial and venous cannulation (eg, femoral vessels) (List separately in addition to code for primary procedure)	CARDIAC SURGERY
33368	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with open peripheral arterial and venous cannulation (eg, femoral, iliac, axillary vessels) (List separately in addition to code for primary procedure)	CARDIAC SURGERY

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Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE		
CPT Code	**Long Descriptor**	**STS Recommended Specialty Override**
33369	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with central arterial and venous cannulation (eg, aorta, right atrium, pulmonary artery) (List separately in addition to code for primary procedure)	CARDIAC SURGERY
33404	Construction of apical-aortic conduit	CARDIAC SURGERY
33412	Replacement, aortic valve; with transventricular aortic annulus enlargement (Konno procedure)	CARDIAC SURGERY
33413	Replacement, aortic valve; by translocation of autologous pulmonary valve with allograft replacement of pulmonary valve (Ross procedure)	CARDIAC SURGERY
33414	Repair of left ventricular outflow tract obstruction by patch enlargement of the outflow tract	CARDIAC SURGERY
33420	Valvotomy, mitral valve; closed heart	CARDIAC SURGERY
33422	Valvotomy, mitral valve; open heart, with cardiopulmonary bypass	CARDIAC SURGERY
33460	Valvectomy, tricuspid valve, with cardiopulmonary bypass	CARDIAC SURGERY
33468	Tricuspid valve repositioning and plication for Ebstein anomaly	CARDIAC SURGERY
33471	Valvotomy, pulmonary valve, closed heart; via pulmonary artery	CARDIAC SURGERY
33474	Valvotomy, pulmonary valve, open heart, with cardiopulmonary bypass	CARDIAC SURGERY
33476	Right ventricular resection for infundibular stenosis, with or without commissurotomy	CARDIAC SURGERY
33478	Outflow tract augmentation (gusset), with or without commissurotomy or infundibular resection	CARDIAC SURGERY
33496	Repair of non-structural prosthetic valve dysfunction with cardiopulmonary bypass (separate procedure)	CARDIAC SURGERY
33500	Repair of coronary arteriovenous or arteriocardiac chamber fistula; with cardiopulmonary bypass	CARDIAC SURGERY
33501	Repair of coronary arteriovenous or arteriocardiac chamber fistula; without cardiopulmonary bypass	CARDIAC SURGERY
33502	Repair of anomalous coronary artery from pulmonary artery origin; by ligation	CARDIAC SURGERY
33503	Repair of anomalous coronary artery from pulmonary artery origin; by graft, without cardiopulmonary bypass	CARDIAC SURGERY
33504	Repair of anomalous coronary artery from pulmonary artery origin; by graft, with cardiopulmonary bypass	CARDIAC SURGERY
33505	Repair of anomalous coronary artery from pulmonary artery origin; with construction of intrapulmonary artery tunnel (Takeuchi procedure)	CARDIAC SURGERY
33506	Repair of anomalous coronary artery from pulmonary artery origin; by translocation from pulmonary artery to aorta	CARDIAC SURGERY
33507	Repair of anomalous (eg, intramural) aortic origin of coronary artery by	CARDIAC

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Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE		
CPT Code	**Long Descriptor**	**STS Recommended Specialty Override**
	unroofing or translocation	SURGERY
33514	Coronary artery bypass, vein only; 5 coronary venous grafts	THORACIC SURGERY
33516	Coronary artery bypass, vein only; 6 or more coronary venous grafts	THORACIC SURGERY
33545	Repair of postinfarction ventricular septal defect, with or without myocardial resection	CARDIAC SURGERY
33548	Surgical ventricular restoration procedure, includes prosthetic patch, when performed (eg, ventricular remodeling, SVR, SAVER, Dor procedures)	CARDIAC SURGERY
33600	Closure of atrioventricular valve (mitral or tricuspid) by suture or patch	CARDIAC SURGERY
33602	Closure of semilunar valve (aortic or pulmonary) by suture or patch	CARDIAC SURGERY
33606	Anastomosis of pulmonary artery to aorta (Damus-Kaye-Stansel procedure)	CARDIAC SURGERY
33608	Repair of complex cardiac anomaly other than pulmonary atresia with ventricular septal defect by construction or replacement of conduit from right or left ventricle to pulmonary artery	CARDIAC SURGERY
33610	Repair of complex cardiac anomalies (eg, single ventricle with subaortic obstruction) by surgical enlargement of ventricular septal defect	CARDIAC SURGERY
33611	Repair of double outlet right ventricle with intraventricular tunnel repair;	CARDIAC SURGERY
33612	Repair of double outlet right ventricle with intraventricular tunnel repair; with repair of right ventricular outflow tract obstruction	CARDIAC SURGERY
33615	Repair of complex cardiac anomalies (eg, tricuspid atresia) by closure of atrial septal defect and anastomosis of atria or vena cava to pulmonary artery (simple Fontan procedure)	CARDIAC SURGERY
33617	Repair of complex cardiac anomalies (eg, single ventricle) by modified Fontan procedure	CARDIAC SURGERY
33619	Repair of single ventricle with aortic outflow obstruction and aortic arch hypoplasia (hypoplastic left heart syndrome) (eg, Norwood procedure)	CARDIAC SURGERY
33620	Application of right and left pulmonary artery bands (eg, hybrid approach stage 1)	CARDIAC SURGERY
33621	Transthoracic insertion of catheter for stent placement with catheter removal and closure (eg, hybrid approach stage 1)	CARDIAC SURGERY
33645	Direct or patch closure, sinus venosus, with or without anomalous pulmonary venous drainage	CARDIAC SURGERY
33647	Repair of atrial septal defect and ventricular septal defect, with direct or patch closure	CARDIAC SURGERY
33660	Repair of incomplete or partial atrioventricular canal (ostium primum atrial septal defect), with or without atrioventricular valve repair	CARDIAC SURGERY
33665	Repair of intermediate or transitional atrioventricular canal, with or without atrioventricular valve repair	CARDIAC SURGERY
33670	Repair of complete atrioventricular canal, with or without prosthetic valve	CARDIAC SURGERY

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Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE		
CPT Code	**Long Descriptor**	**STS Recommended Specialty Override**
33675	Closure of multiple ventricular septal defects;	CARDIAC SURGERY
33676	Closure of multiple ventricular septal defects; with pulmonary valvotomy or infundibular resection (acyanotic)	CARDIAC SURGERY
33677	Closure of multiple ventricular septal defects; with removal of pulmonary artery band, with or without gusset	CARDIAC SURGERY
33684	Closure of single ventricular septal defect, with or without patch; with pulmonary valvotomy or infundibular resection (acyanotic)	CARDIAC SURGERY
33688	Closure of single ventricular septal defect, with or without patch; with removal of pulmonary artery band, with or without gusset	CARDIAC SURGERY
33690	Banding of pulmonary artery	CARDIAC SURGERY
33692	Complete repair tetralogy of Fallot without pulmonary atresia;	CARDIAC SURGERY
33694	Complete repair tetralogy of Fallot without pulmonary atresia; with transannular patch	CARDIAC SURGERY
33697	Complete repair tetralogy of Fallot with pulmonary atresia including construction of conduit from right ventricle to pulmonary artery and closure of ventricular septal defect	CARDIAC SURGERY
33702	Repair sinus of Valsalva fistula, with cardiopulmonary bypass;	CARDIAC SURGERY
33710	Repair sinus of Valsalva fistula, with cardiopulmonary bypass; with repair of ventricular septal defect	CARDIAC SURGERY
33720	Repair sinus of Valsalva aneurysm, with cardiopulmonary bypass	CARDIAC SURGERY
33722	Closure of aortico-left ventricular tunnel	CARDIAC SURGERY
33724	Repair of isolated partial anomalous pulmonary venous return (eg, Scimitar Syndrome)	CARDIAC SURGERY
33726	Repair of pulmonary venous stenosis	CARDIAC SURGERY
33730	Complete repair of anomalous pulmonary venous return (supracardiac, intracardiac, or infracardiac types)	CARDIAC SURGERY
33732	Repair of cor triatriatum or supravalvular mitral ring by resection of left atrial membrane	CARDIAC SURGERY
33735	Atrial septectomy or septostomy; closed heart (Blalock-Hanlon type operation)	CARDIAC SURGERY
33736	Atrial septectomy or septostomy; open heart with cardiopulmonary bypass	CARDIAC SURGERY
33737	Atrial septectomy or septostomy; open heart, with inflow occlusion	CARDIAC SURGERY
33750	Shunt; subclavian to pulmonary artery (Blalock-Taussig type operation)t	CARDIAC SURGERY
33755	Shunt; ascending aorta to pulmonary artery (Waterston type operation)	CARDIAC SURGERY

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Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE		
CPT Code	**Long Descriptor**	**STS Recommended Specialty Override**
33762	Shunt; descending aorta to pulmonary artery (Potts-Smith type operation)	CARDIAC SURGERY
33764	Shunt; central, with prosthetic graft	CARDIAC SURGERY
33767	Shunt; superior vena cava to pulmonary artery for flow to both lungs (bidirectional Glenn procedure)	CARDIAC SURGERY
33768	Anastomosis, cavopulmonary, second superior vena cava (List separately in addition to primary procedure)	CARDIAC SURGERY
33770	Repair of transposition of the great arteries with ventricular septal defect and subpulmonary stenosis; without surgical enlargement of ventricular septal defect	CARDIAC SURGERY
33771	Repair of transposition of the great arteries with ventricular septal defect and subpulmonary stenosis; with surgical enlargement of ventricular septal defect	CARDIAC SURGERY
33774	Repair of transposition of the great arteries, atrial baffle procedure (eg, Mustard or Senning type) with cardiopulmonary bypass;	CARDIAC SURGERY
33775	Repair of transposition of the great arteries, atrial baffle procedure (eg, Mustard or Senning type) with cardiopulmonary bypass; with removal of pulmonary band	CARDIAC SURGERY
33776	Repair of transposition of the great arteries, atrial baffle procedure (eg, Mustard or Senning type) with cardiopulmonary bypass; with closure of ventricular septal defect	CARDIAC SURGERY
33777	Repair of transposition of the great arteries, atrial baffle procedure (eg, Mustard or Senning type) with cardiopulmonary bypass; with repair of subpulmonic obstruction	CARDIAC SURGERY
33778	Repair of transposition of the great arteries, aortic pulmonary artery reconstruction (eg, Jatene type);	CARDIAC SURGERY
33779	Repair of transposition of the great arteries, aortic pulmonary artery reconstruction (eg, Jatene type); with removal of pulmonary band	CARDIAC SURGERY
33780	Repair of transposition of the great arteries, aortic pulmonary artery reconstruction (eg, Jatene type); with closure of ventricular septal defect	CARDIAC SURGERY
33781	Repair of transposition of the great arteries, aortic pulmonary artery reconstruction (eg, Jatene type); with repair of subpulmonic obstruction	CARDIAC SURGERY
33782	Aortic root translocation with ventricular septal defect and pulmonary stenosis repair (ie, Nikaidoh procedure); without coronary ostium reimplantation	CARDIAC SURGERY
33783	Aortic root translocation with ventricular septal defect and pulmonary stenosis repair (ie, Nikaidoh procedure); with reimplantation of 1 or both coronary ostia	CARDIAC SURGERY
33786	Total repair, truncus arteriosus (Rastelli type operation)	CARDIAC SURGERY
33788	Reimplantation of an anomalous pulmonary artery	CARDIAC SURGERY
33800	Aortic suspension (aortopexy) for tracheal decompression (eg, for tracheomalacia) (separate procedure)	CARDIAC SURGERY

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Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE		
CPT Code	**Long Descriptor**	**STS Recommended Specialty Override**
33802	Division of aberrant vessel (vascular ring);	CARDIAC SURGERY
33803	Division of aberrant vessel (vascular ring); with reanastomosis	CARDIAC SURGERY
33813	Obliteration of aortopulmonary septal defect; without cardiopulmonary bypass	CARDIAC SURGERY
33814	Obliteration of aortopulmonary septal defect; with cardiopulmonary bypass	CARDIAC SURGERY
33820	Repair of patent ductus arteriosus; by ligation	CARDIAC SURGERY
33822	Repair of patent ductus arteriosus; by division, younger than 18 years	CARDIAC SURGERY
33824	Repair of patent ductus arteriosus; by division, 18 years and older	CARDIAC SURGERY
33840	Excision of coarctation of aorta, with or without associated patent ductus arteriosus; with direct anastomosis	CARDIAC SURGERY
33845	Excision of coarctation of aorta, with or without associated patent ductus arteriosus; with graft	CARDIAC SURGERY
33851	Excision of coarctation of aorta, with or without associated patent ductus arteriosus; repair using either left subclavian artery or prosthetic material as gusset for enlargement	CARDIAC SURGERY
33852	Repair of hypoplastic or interrupted aortic arch using autogenous or prosthetic material; without cardiopulmonary bypass	CARDIAC SURGERY
33853	Repair of hypoplastic or interrupted aortic arch using autogenous or prosthetic material; with cardiopulmonary bypass	CARDIAC SURGERY
33915	Pulmonary artery embolectomy; without cardiopulmonary bypass	CARDIAC SURGERY
33916	Pulmonary endarterectomy, with or without embolectomy, with cardiopulmonary bypass	CARDIAC SURGERY
33917	Repair of pulmonary artery stenosis by reconstruction with patch or graft	CARDIAC SURGERY
33920	Repair of pulmonary atresia with ventricular septal defect, by construction or replacement of conduit from right or left ventricle to pulmonary artery	CARDIAC SURGERY
33922	Transection of pulmonary artery with cardiopulmonary bypass	CARDIAC SURGERY
33924	Ligation and takedown of a systemic-to-pulmonary artery shunt, performed in conjunction with a congenital heart procedure (List separately in addition to code for primary procedure)	CARDIAC SURGERY
33925	Repair of pulmonary artery arborization anomalies by unifocalization; without cardiopulmonary bypass	CARDIAC SURGERY
33926	Repair of pulmonary artery arborization anomalies by unifocalization; with cardiopulmonary bypass	CARDIAC SURGERY
33933	Backbench standard preparation of cadaver donor heart/lung allograft prior to transplantation, including dissection of allograft from surrounding soft tissues to prepare aorta, superior vena cava, inferior vena cava, and trachea	CARDIAC SURGERY

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Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE		
CPT Code	**Long Descriptor**	**STS Recommended Specialty Override**
	for implantation	
33935	Heart-lung transplant with recipient cardiectomy-pneumonectomy	CARDIAC SURGERY
33958	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; reposition peripheral (arterial and/or venous) cannula(e), percutaneous, 6 years and older (includes fluoroscopic guidance, when performed)	CARDIAC SURGERY
33962	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; reposition peripheral (arterial and/or venous) cannula(e), open, 6 years and older (includes fluoroscopic guidance, when performed)	CARDIAC SURGERY
33964	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; reposition central cannula(e) by sternotomy or thoracotomy, 6 years and older (includes fluoroscopic guidance, when performed)	CARDIAC SURGERY
33969	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; removal of peripheral (arterial and/or venous) cannula(e), open, birth through 5 years of age	CARDIAC SURGERY
33973	Insertion of intra-aortic balloon assist device through the ascending aorta	CARDIAC SURGERY
33974	Removal of intra-aortic balloon assist device from the ascending aorta, including repair of the ascending aorta, with or without graft	CARDIAC SURGERY
33976	Insertion of ventricular assist device; extracorporeal, biventricular	THORACIC SURGERY
33978	Removal of ventricular assist device; extracorporeal, biventricular	CARDIAC SURGERY
33981	Replacement of extracorporeal ventricular assist device, single or biventricular, pump(s), single or each pump	CARDIAC SURGERY
33982	Replacement of ventricular assist device pump(s); implantable intracorporeal, single ventricle, without cardiopulmonary bypass	CARDIAC SURGERY
33985	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; removal of central cannula(e) by sternotomy or thoracotomy, birth through 5 years of age	CARDIAC SURGERY
33987	Arterial exposure with creation of graft conduit (eg, chimney graft) to facilitate arterial perfusion for ECMO/ECLS (List separately in addition to code for primary procedure)	CARDIAC SURGERY
33988	Insertion of left heart vent by thoracic incision (eg, sternotomy, thoracotomy) for ECMO/ECLS	CARDIAC SURGERY
33989	Removal of left heart vent by thoracic incision (eg, sternotomy, thoracotomy) for ECMO/ECLS	CARDIAC SURGERY
34051	Embolectomy or thrombectomy, with or without catheter; innominate, subclavian artery, by thoracic incision	CARDIAC SURGERY
35021	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, innominate, subclavian artery, by thoracic	CARDIAC SURGERY

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Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE		
CPT Code	**Long Descriptor**	**STS Recommended Specialty Override**
	incision	
35022	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, innominate, subclavian artery, by thoracic incision	CARDIAC SURGERY
35180	Repair, congenital arteriovenous fistula; head and neck	THORACIC SURGERY
35182	Repair, congenital arteriovenous fistula; thorax and abdomen	THORACIC SURGERY
35241	Repair blood vessel with vein graft; intrathoracic, with bypass	CARDIAC SURGERY
35246	Repair blood vessel with vein graft; intrathoracic, without bypass	CARDIAC SURGERY
35251	Repair blood vessel with vein graft; intra-abdominal	CARDIAC SURGERY
35276	Repair blood vessel with graft other than vein; intrathoracic, without bypass	CARDIAC SURGERY
36455	Exchange transfusion, blood; other than newborn	THORACIC SURGERY
36835	Insertion of Thomas shunt (separate procedure)	THORACIC SURGERY
37616	Ligation, major artery (eg, post-traumatic, rupture); chest	THORACIC SURGERY
39200	Resection of mediastinal cyst	THORACIC SURGERY
39503	Repair, neonatal diaphragmatic hernia, with or without chest tube insertion and with or without creation of ventral hernia	THORACIC SURGERY
43045	Esophagotomy, thoracic approach, with removal of foreign body	THORACIC SURGERY
43101	Excision of lesion, esophagus, with primary repair; thoracic or abdominal approach	THORACIC SURGERY
43113	Total or near total esophagectomy, with thoracotomy; with colon interposition or small intestine reconstruction, including intestine mobilization, preparation, and anastomosis(es)	THORACIC SURGERY
43116	Partial esophagectomy, cervical, with free intestinal graft, including microvascular anastomosis, obtaining the graft and intestinal reconstruction	THORACIC SURGERY
43121	Partial esophagectomy, distal two-thirds, with thoracotomy only, with or without proximal gastrectomy, with thoracic esophagogastrostomy, with or without pyloroplasty	THORACIC SURGERY
43124	Total or partial esophagectomy, without reconstruction (any approach), with cervical esophagostomy	THORACIC SURGERY
43135	Diverticulectomy of hypopharynx or esophagus, with or without myotomy; thoracic approach	THORACIC SURGERY
43310	Esophagoplasty (plastic repair or reconstruction), thoracic approach; without repair of tracheoesophageal fistula	THORACIC SURGERY
43312	Esophagoplasty (plastic repair or reconstruction), thoracic approach; with	THORACIC

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Low Volume Cardiothoracic Codes with Recommended Specialty Override for PLI and PE		
CPT Code	**Long Descriptor**	**STS Recommended Specialty Override**
	repair of tracheoesophageal fistula	SURGERY
43312	Esophagoplasty (plastic repair or reconstruction), thoracic approach; with repair of tracheoesophageal fistula	THORACIC SURGERY
43313	Repair of pulmonary artery arborization anomalies by unifocalization; with cardiopulmonary bypass	THORACIC SURGERY
43314	Esophagoplasty for congenital defect (plastic repair or reconstruction), thoracic approach; with repair of congenital tracheoesophageal fistula	THORACIC SURGERY
43325	Esophagogastric fundoplasty, with fundic patch (Thal-Nissen procedure)	THORACIC SURGERY
43328	Esophagogastric fundoplasty partial or complete; thoracotomy	THORACIC SURGERY
43331	Esophagomyotomy (Heller type); thoracic approach	THORACIC SURGERY
43335	Repair, paraesophageal hiatal hernia (including fundoplication), via thoracotomy, except neonatal; with implantation of mesh or other prosthesis	THORACIC SURGERY
43336	Repair, paraesophageal hiatal hernia, (including fundoplication), via thoracoabdominal incision, except neonatal; without implantation of mesh or other prosthesis	THORACIC SURGERY
43337	Repair, paraesophageal hiatal hernia, (including fundoplication), via thoracoabdominal incision, except neonatal; with implantation of mesh or other prosthesis	THORACIC SURGERY
43341	Esophagojejunostomy (without total gastrectomy); thoracic approach	THORACIC SURGERY
43351	Esophagostomy, fistulization of esophagus, external; thoracic approach	THORACIC SURGERY
43352	Esophagostomy, fistulization of esophagus, external; cervical approach	THORACIC SURGERY
64410	Injection, anesthetic agent; phrenic nerve	THORACIC SURGERY
64746	Transection or avulsion of; phrenic nerve	THORACIC SURGERY
96440	Chemotherapy administration into pleural cavity, requiring and including thoracentesis	THORACIC SURGERY