STS 52nd Annual Meeting to Feature New Technology, Lively Debates

For the first time in 30 years, the STS Annual Meeting will be held in Phoenix, Arizona, a city with a sophisticated architectural landscape set against panoramic mountains and stunning desert scenery. The meeting will be January 23-27, 2016, at the Phoenix Convention Center and will offer more interactivity and technology than ever before.

"Attending the meeting will help you see into the future and also stay current on tangible things that you can use in practice today," said K. Robert Shen, MD, Chair of the Workforce on Annual Meeting. "STS always has been the most inclusive surgical society in our specialty, so the meeting is an excellent opportunity for networking.”

Members of the Workforce on Annual Meeting Program Task Force have been hard at work choosing which of the nearly 1,000 submitted research abstracts and surgical videos will be presented at the Annual Meeting. The result is an educational program that will stimulate debate, broaden attendees’ scope of knowledge, and showcase the leading edge of cardiothoracic surgery technology.

**HOT TOPICS ON DECK**

For adult cardiac surgeons, the coming revolution in transcatheter mitral valve surgery will be a hot topic at the Annual Meeting. Sessions also will cover transcatheter aortic valve procedures, arrhythmia, aortic dissection, heart failure, and left ventricular assist devices.

"STS and the European Association for Cardio-Thoracic Surgery will be hosting a very potent session on specialized aortic valve-sparing surgery and aortic valve repair," said STS First Vice President Joseph E. Bavaria, MD, who helped plan the session. “We also have an exciting session on structural heart disease in combination with the American College of Cardiology. This will be a very dynamic portion of the Annual Meeting.”

Sessions geared toward general thoracic surgeons will cover breath tests for lung cancer, surveillance after definitive treatment, quality improvement initiatives, and the hybrid operating room.

"The general thoracic surgical symposium on Sunday is going to be really exciting. We’re going to look at advanced techniques in lung cancer resection, a minimally invasive approach to treating thymic tumors, both with and without myasthenia gravis, and there are gaps in our knowledge concerning many aspects of temperature management," explained guidelines co-author Richard Engelman, MD, from Baystate Medical Center in Springfield, Mass.

The new clinical practice guidelines offer evidence-based recommendations that...
Make the Most of MACRA

Mark S. Allen, MD, President

In the spring issue of STS News, I wrote about how the Society was instrumental in the successful repeal/replacement of the law that gave us the Sustainable Growth Rate formula for Medicare reimbursement, a formula that would have cut payment to surgeons by 21.2% this year.

A new law, the Medicare Access and Children’s Health Insurance Program Reauthorization Act of 2015 (MACRA for short), was passed in the House (392 to 37) and in the Senate (92 to 8) and signed into law by President Obama in April.

Although this bipartisan law prevents a significant cut in reimbursement, it only allows for a fractional increase in reimbursement for the foreseeable future. Starting with this year, annual increases are only 0.5% per year until 2020, then no across-the-board increases for 2020 through 2025. Even if inflation rates stay below their historic norms, we are likely to end up with a net decrease in real reimbursement.

MIPS SCORES
Another significant section of MACRA addresses what is called a Merit-based Incentive Payment System (MIPS). The MIPS program consolidates and expands some of the pay-for-performance incentives that have been in use.

Beginning in 2019, surgeons will get a MIPS score, and those who score well will get a bonus payment. The MIPS score is calculated from four domains: quality (using the Physician Quality Reporting System [PQRS]) makes up 30% of the MIPS score, resource use (value-based medicine) makes up another 30%, meaningful use (electronic medical records [EMR]) accounts for 25%, and clinical practice improvement activities account for the remaining 15% of the score.

PQRS PARTICIPATION
Surgeons are encouraged to report quality measures through a Qualified Clinical Data Registry (QCDR), and participation in such a registry also will qualify as a clinical practice improvement activity. The good news for STS members is that the STS National Database is already a QCDR; so if you use an EMR and participate in the Adult Cardiac Surgery component of the STS National Database, you already have nearly 70% of the components for the Medicare bonus payments. (See page 9 for details.) In 2019, surgeons could see bonuses of up to 12%, and by 2022, the maximum bonus goes up to 22%.

APM PARTICIPATION
MACRA also allows surgeons who participate in Alternative Payment Models (APMs) to opt out of MIPS and get an automatic 5% increase in payments. APMs are new models of health care delivery and payment. They will transform reimbursement from a fee-for-service model to a system that pays for disease management and rewards quality and efficiency. Health and Human Services Secretary Sylvia Burwell must establish criteria for an advisory panel to use in making recommendations on APMs by November 1, 2016. STS is developing APMs for management of coronary disease and treatment of lung cancer.

Much about APMs is still to be determined, and the Society will work with its members to help ensure that we can provide the best care to our patients every day.

We have been fortunate to be able to draw on the talents of numerous cardiothoracic surgeons over the years in addressing reimbursement and other health policy matters of interest to the membership. These surgeons include current Health Policy and Relationships Council Chair Doug Mathisen, Workforce on Health Policy, Reform, and Advocacy Chair Alan Speir, Workforce on Coding and Reimbursement Chair Frank Nichols (who recently succeeded Peter Smith upon his appointment as Chair of the AMA Relative Value Scale Update Committee), and STS Past President and former Center for Medicare Management Director Jeff Rich.

We also have four dedicated professionals—Courtney Yohe, Elyssa Hesky, Josh Krantz, and Madeleine Stirling—in our Washington, DC, office, who are working hard to accomplish our goals.

If you have suggestions, please e-mail them at advocacy@sts.org. You also can provide financial support via the STS Political Action Committee at www.sts.org/pac or become a Key Contact for STS advocacy by signing up at www.sts.org/advocacy/get-involved (it’s free).

With your support and involvement, we can influence how we are reimbursed and ensure that we are able to continue providing high-quality cardiothoracic surgical care for our patients.
One of the most frequent requests that I receive from our membership is for more information on the transition from private practice to an employed physician situation. The nature of our specialty makes it a seemingly natural fit for hospital system employment. Although the benefits of this model are increasing as the economic landscape of health care is transformed, there are, of course, many downsides. Dr. V. Seenu Reddy highlights some important points to consider during that major career transition.

Frank L. Fazzalari, MD, MBA, Chair, Workforce on Practice Management

Considerations for Transitioning from Private Practice to Employment

V. Seenu Reddy, MD, MBA, Centennial Heart & Vascular Center, Nashville, TN

There are myriad reasons why physicians choose to transition from private practice to an employed physician arrangement. This trend recently has increased, and a majority of the cardiothoracic surgery workforce is now employed by a hospital, hospital system, or academic institution.

The top reasons cited for making the switch include protection from increasing overhead, avoiding the complexity of contracting with payers, declining reimbursements, access to ancillary services, such as nurse practitioners and electronic health record support, and the perceived ability to “lock in” compensation. While there are many benefits, the transition to an employed structure requires analysis of several important areas:

**Non-compete Clauses:** Employment usually involves a non-compete clause that seeks to prevent physicians from going back into private practice with the very patients that the hospital system provided. Non-competes typically involve a duration of effectiveness (usually a year or two), a designated geographic area (usually a radius of 15-50 miles from the primary facility), and a description of services (e.g., “the practice of medicine,” not always “cardiothoracic surgery”). Ensure that you will have options should you decide to go back into private practice.

**Medical Malpractice:** If professional liability coverage is provided as an employment benefit, the “consent to settle” clause may be in favor of the employer. A physician should ensure that the employer will not settle a claim early or with low dollars to avoid a costly legal defense, which may be indicated to maintain the physician’s claims status and prevent reporting to the National Practitioner Data Bank. Reports to the Data Bank are permanent and can make future employment and liability coverage much more difficult.

**Compensation Structure:** Large starting salaries and bonuses often can give way to much smaller total compensation if future clinical volumes do not support it. Bonuses should be attainable. It also is critical to understand how compensation is calculated: dollars collected, overall billings (e.g., “the practice of medicine,” not always “cardiothoracic surgery”). Ensure that you will have options should you decide to go back into private practice.

There are many reasons why physicians choose to transition from private practice to an employed physician situation. This trend recently has increased, and a majority of the cardiothoracic surgery workforce is now employed by a hospital, hospital system, or academic institution.

The top reasons cited for making the switch include protection from increasing overhead, avoiding the complexity of contracting with payers, declining reimbursements, access to ancillary services, such as nurse practitioners and electronic health record support, and the perceived ability to “lock in” compensation. While there are many benefits, the transition to an employed structure requires analysis of several important areas:

**Non-compete Clauses:** Employment usually involves a non-compete clause that seeks to prevent physicians from going back into private practice with the very patients that the hospital system provided. Non-competes typically involve a duration of effectiveness (usually a year or two), a designated geographic area (usually a radius of 15-50 miles from the primary facility), and a description of services (e.g., “the practice of medicine,” not always “cardiothoracic surgery”). Ensure that you will have options should you decide to go back into private practice.

**Medical Malpractice:** If professional liability coverage is provided as an employment benefit, the “consent to settle” clause may be in favor of the employer. A physician should ensure that the employer will not settle a claim early or with low dollars to avoid a costly legal defense, which may be indicated to maintain the physician’s claims status and prevent reporting to the National Practitioner Data Bank. Reports to the Data Bank are permanent and can make future employment and liability coverage much more difficult.

**Compensation Structure:** Large starting salaries and bonuses often can give way to much smaller total compensation if future clinical volumes do not support it. Bonuses should be attainable. It also is critical to understand how compensation is calculated: dollars collected, overall billings (e.g., “the practice of medicine,” not always “cardiothoracic surgery”). Ensure that you will have options should you decide to go back into private practice.

While the transition from private practice to employment has the potential advantages of a stable paycheck and fewer administrative hassles, there are important caveats to consider. You may face somewhat less autonomy, more institutional burden (compliance, regulations), change in compensation if clinical volumes or program priorities shift, and the added requirements of quality oversight. Despite these issues, it appears that this paradigm has firmly established itself within the specialty and will continue to evolve in the future.
On International Relationships

Robert A. Wynbrandt, Executive Director & General Counsel

The world is full of mysteries. Case in point: how is it that in Shanghai, the most heavily populated city in the world (more than 24 million and counting as of 2014, according to Wikipedia), you can’t find a Starbucks – yes, they are all over Shanghai – open before 7:00 a.m.? Has the famously energetic Chinese population managed to dodge the morning addiction that afflicts so many of us Type A Americans? Is it the product of some communist government control over general coffee consumption? Is it a more targeted “unfair trade practice” aimed at an internationally successful US company? What?

I came upon this mystery while attending the 11th Annual Meeting of the Chinese Association of Cardiovascular Surgeons, along with STS President Mark Allen and STS Treasurer Bob Higgins, September 11-13 (see photo on page 13). Attending this CACVS Annual Meeting also afforded me the opportunity to meet with a number of Chinese cardiovascular surgeons who were hungry to learn from Mark, Bob, and other speakers from outside China while simultaneously sharing their own knowledge about the specialty as it is practiced in their country. All in all, a terrific experience.

Ten years have now passed since the publication of Thomas L. Friedman’s blockbuster, The World Is Flat. And although the global practice of cardiothoracic surgery undoubtedly has not yet attained that horizontal status, this recent CACVS meeting is but one example of a specialty that continues to get flatter as the years go by.

Our national and regional organizations increasingly collaborate on matters of clinical education, research and publication, harmonization of database activities, and other important endeavors. Individual surgeon leaders sit on the governing bodies of organizations based outside their home countries, as is the case with STS International Directors Pieter Kappetein (The Netherlands) and Shinichi Takamoto (Japan). The Society of Thoracic Surgeons has been an active player in this arena beyond the establishment of International Director positions, having created a Workforce on International Relationships as one of its core governance bodies when the Society overhauled its structure in 2002. That workforce has generated a series of important symposia at our Annual Meetings, and as highlighted in this issue’s cover story, our 2016 Annual Meeting in Phoenix will be no exception, with an International Symposium & Reception scheduled for Monday, January 25, focusing on new technologies to treat rheumatic heart disease, endocarditis, and mitral valve disease in various parts of the world. A host of other events throughout the meeting will have an international flavor, including special sessions jointly presented with our sister societies from Europe and Canada.

Another dimension of STS life having an international flavor is the current strategic planning exercise facilitated by consultants from McKinley Advisors. For the uninitiated, the Society has undertaken formal strategic planning every 5 years since Past President John Benfield began the tradition in 1995—continued under the direction of Jack Matloff in 2000 (see page 10), Sid Levitsky in 2005, Doug Mathisen in 2010, and now Mark Allen. In that regard, this is a good opportunity to thank those of you who participated in the membership survey conducted this past summer to provide the necessary data required for intelligent organizational planning. There will be much more news on the strategic planning front in the months ahead, but the early returns from our core planning group suggest that the new STS strategic plan that will emerge from this process will both reflect and help facilitate a continued flattening of the world that is cardiothoracic surgery going forward.

Those of us living in the United States received a heavy dose of international relationships in late September as we welcomed, in rapid-fire succession, Pope Francis, Chinese President Xi Jinping, and then Russian President Vladimir Putin and a host of other world leaders for the 70th session of the United Nations General Assembly. While some of these interactions cannot help but to highlight the fact that many differences remain among the numerous cultures and countries of the world, it is heartening to remind ourselves that the flattening world of cardiothoracic surgery has a common, central purpose that was evident at the recent meeting of Chinese cardiovascular surgeons, will be on display at our own Annual Meeting in Phoenix, and is at the heart of the recently confirmed STS mission: providing the highest quality patient care.

On behalf of the STS staff, I hope to see many of you, from throughout the world, at our 2016 Annual Meeting in Phoenix. Please plan to attend (registration is now open; see page 15) and experience the flattening world of cardiothoracic surgery firsthand. We promise to have lots of coffee available, round the clock.
Member News

PUTNAM LEADS NEW CANCER CENTER
Joe B. (Bill) Putnam Jr., MD has been named Medical Director of the Baptist MD Anderson Cancer Center in Jacksonville, Fla. Previously, he was Chair of the Department of Thoracic Surgery at Vanderbilt University Medical Center in Nashville. Dr. Putnam serves on the STS Council on Quality, Research, and Patient Safety Operating Board and is a Director of the American Board of Thoracic Surgery. He has been an STS member since 1992.

NELSON MOVES UP IN LDS LEADERSHIP
Russell M. Nelson, MD, PhD has been named President of the Quorum of the Twelve Apostles of The Church of Jesus Christ of Latter-Day Saints. The Quorum is the second-highest presiding body within the LDS Church. Prior to becoming an apostle, Dr. Nelson was a Research Professor of Surgery and Director of the Thoracic Surgery Residency at the University of Utah and Chair of the Division of Thoracic Surgery at LDS Hospital in Salt Lake City. He has served as President of the Society for Vascular Surgery and of the Utah State Medical Association. He also was a Director of the American Board of Thoracic Surgery from 1972 to 1978. He joined the Society in 1964 as a Founder Member.

WEINSTEIN CMO AT SPECIALTYCARE
Samuel Weinstein, MD, MBA is the new Executive Vice President and Chief Medical Officer at SpecialtyCare, a company that provides physician and allied health support to more than 800 hospitals in the United States. Previously, Dr. Weinstein was the Director of Pediatric Cardiothoracic Surgery and Surgical Director of Cardiac Transplantation and Mechanical Assistance at The Children’s Hospital at Montefiore in New York City. He has been an STS member since 2003.

ROTH NAMED HONORARY ASTRO MEMBER
Jack A. Roth, MD has been selected by the American Society for Radiation Oncology (ASTRO) as its 2015 Honorary Member, the highest honor ASTRO bestows on distinguished cancer researchers, scientists, and leaders in disciplines other than radiation oncology, radiobiology, or radiation physics. Dr. Roth holds several positions at MD Anderson Cancer Center in Houston, including Professor in the Department of Thoracic and Cardiovascular Surgery, the Bud Johnson Clinical Distinguished Chair, Director of the W.M. Keck Center for Innovative Cancer Therapies, and Chief, Section of Thoracic Molecular Oncology. He was an early innovator in the multidisciplinary treatment for thoracic cancers and the development of gene therapy for cancer. Dr. Roth has been an STS member since 1984.

GELLER APPOINTED SYSTEM CHIEF
Charles M. Geller, MD has been named System Chief of Cardiothoracic Surgery for the Crozer Keystone Health System in suburban Philadelphia. Previously, he was Director of the Cardiac Surgery Intensive Care Unit at Mount Sinai Beth Israel in New York City. Dr. Geller has been an STS member since 1998.

GHARAGOZLOO RECEIVES SURGICAL EXCELLENCE DESIGNATION
Farid Gharagozloo, MD recently was the first thoracic surgeon to be named a “Surgeon of Excellence in Robotic Surgery” by the Clinical Robotic Surgery Association and Surgical Review Corporation. The designation recognizes surgeons who perform robotic surgery procedures and have achieved defined standards for patient safety and care quality. Dr. Gharagozloo is Chief of Cardiothoracic Surgery at Celebration Health/Florida Hospital, The Global Robotic Institute, and the University of Central Florida. He has been an STS member since 1999.

Submit news about yourself or a colleague to stsnews@sts.org. Submissions will be printed based on content, membership status, and space available.

Staff Updates

Madeleine Stirling joined STS on July 13 as its Government Relations Assistant. She helps the Washington, DC, office with lobbying and grassroots advocacy activities, STS-PAC administration, and congressional correspondence. Previously, Madeleine was an administrative assistant at a venture capital firm. She holds a bachelor’s degree in government from Smith College in Northampton, Mass. To contact Madeleine, e-mail mstirling@sts.org.

Susan Becker joined STS on September 8 as its STS National Database Manager. She will manage clinical and operational aspects of the General Thoracic Surgery Database and the Congenital Heart Surgery Database, including data collection and software specification upgrades, data manager training, and Core Group support. Previously, Susan was a Clinical Analyst, Electronic Medical Records, at Loyola University Medical Center in Maywood, Ill. She holds a bachelor’s degree in nursing from the University of Missouri-St. Louis and a master’s in business administration from Lake Forest Graduate School of Management. To contact Susan, e-mail sbecker@sts.org.
Outcome Reporting: Physician, Heal Thyself!
A. Pieter Kappetein, MD, PhD, STS International Director

Large differences in short-term hospital mortality and complications prompted a public outcry in New York State to mandate the use of clinical registries for cardiac surgery in 1989. Around that same time, STS launched the STS National Database.

In 1994, The Journal of the American Medical Association reported that actual and risk-adjusted mortality following CABG surgery in New York State dropped significantly (21% and 41%, respectively) following implementation of the registry.

Many countries now require hospitals to submit data on surgical procedures and publicly report them in an effort to improve quality of care. Such data include operative mortality, risk-adjusted mortality, and case volume.

Submitting data to a central database allows surgical teams to continually compare outcomes on all types of surgical procedures with national or international benchmarks. The combination of clinical data and outcome reports can monitor performance and drive outcome improvement. These efforts have been associated with decreases in cardiac surgery mortality, but there is substantial disagreement over the sources of improvement.

Many questions remain. How do consumers determine which health care provider will truly meet their critical and diverse needs? How do patients interpret report cards? Additionally, there are direct costs for collecting, analyzing, and publishing this information. Are these costs justified in terms of the effect on patient choices?

Studies performed after introducing public reporting in New York State showed that hospitals whose report card rankings were lower than prior beliefs experienced a significant decrease in demand, but in contrast to what one may intuitively think, hospitals with higher-than-expected scores appeared to gain no benefits from the positive news. In a survey performed in Pennsylvania, fewer than 1% of patients knew the correct rating for their surgeon or hospital and reported that it had a moderate or major impact on their selection of provider.

It is easy to misunderstand health statistics, and doctors may need to manage unrealistic expectations of patients; however, some studies have shown that physicians themselves do not understand the difference between absolute and relative risk. In a study of 150 gynecologists, one third did not understand the meaning of a 25% risk reduction from mammography.

Many believed that if all women were screened, 25% of women would die from breast cancer, when actually the best evidence-based estimate is one fewer death per 2,000 women. Can physicians reliably inform their patients if they do not understand the difference between absolute and risk-adjusted mortality and the limitations of risk-adjusted mortality?

It is critically important to ensure the completeness and accuracy of the data and understand the limitations of risk-adjusted mortality.

TACKLING UNINTENDED CONSEQUENCES

Public reporting has undoubtedly improved health care and is here to stay. Now, we must tackle some of its unintended consequences. A recent UK study noted that experienced cardiac surgeons take on increasingly complex surgeries, which is expected to lead to an increase in the incidence of adverse outcomes. After adjusting for case-mix using the EuroSCORE, an increased risk of mortality in patients operated on by longer-serving surgeons was observed. This finding may reflect under-adjustment for risk, unmeasured confounding factors, or a real association.

In other highly competitive markets where surgeons get paid per case, it might be the other way around. Established surgeons get enough low-risk patients referred to obtain a good salary and not risk their reputation, while leaving the high-risk cases to the young, inexperienced surgeons who do not get enough patients referred to establish a practice. Ever since the introduction of public reporting, concern has been raised about doctors becoming more cautious and practicing “defensive” medicine to prevent litigation and avoid investigation.

Public reporting may have an unwanted damaging effect on individual surgeons, with destruction of confidence, disruption of functional teams, and inappropriate suspensions. A single surgeon is no longer entirely responsible for a patient; rather, patient care involves a team of nurses, perfusionists, anesthesiologists, intensivists, and surgeons who are managed by the hospital administration. A study published earlier this year showing markedly varying rates of death or major complications among anesthesiologists suggested that we may be able to improve outcomes in high-risk surgical patients by improving perioperative management. This is a sign that it is better to speak about “team-specific mortality” than “surgeon-specific mortality.”

MEDICAL SOCIETY GUIDANCE NEEDED

It is critically important to ensure the completeness and accuracy of the data and understand the limitations of risk-adjusted mortality. Reporting may accidentally or deliberately be inaccurate. Sample size is often too small. Mortality may work well as an outcome measure for CABG surgery but will be too imprecise for use with other procedures. Surgeons in different countries struggle with the same questions: Which data should be collected, how should it be analyzed, how should it be understood? And, most importantly, what do we do with the outliers? Both high and low outliers are worth investigating.

Our cardiothoracic surgical professional organizations can provide guidance on which data should be collected, how outliers must be examined, and the degree to which health care providers and the public are part of the process. It is evident that such recommendations can be developed only in collaboration with physicians, other health care providers, and—the last but not least—patient advocacy groups. Physicians should start the process of outcome reporting, and, by healing themselves, they will provide optimal care for their patients.
The Ongoing Evolution of Outcomes Measurement and Reporting

David M. Shahian, MD, Chair, Council on Quality, Research, and Patient Safety; Jeffrey P. Jacobs, MD, Chair, Workforce on National Databases; and Vinay Badhwar, MD, Chair, Public Reporting Task Force

In this edition of STS News, Dr. Kappetein presents an international perspective on outcomes measurement and public reporting in cardiothoracic surgery. To complement this interesting article, we present a brief history of the ongoing evolution of these activities in the Society.

Performance measurement and public reporting of outcomes are among the most contentious issues in modern health care. Advocates point to the need for transparency to facilitate informed patient choice and promote data-driven performance improvement. Critics point to the difficulty of accurately measuring health care performance and the potential for unintended negative consequences, such as risk aversion. As the national leader in this area, STS has devoted considerable effort and resources to addressing these worthy goals and complex challenges.

HIGH-QUALITY DATA AND ROBUST RISK ADJUSTMENT NEEDED

The modern health care quality movement in the US began in 1986, when the federal government published unadjusted hospital mortality results based on claims data. Prescient STS leaders recognized that unadjusted coronary artery bypass grafting (CABG) mortality was an unfair measure of quality and that a nationwide clinical database was needed from which relevant risk factors could be derived. The STS National Database was launched in 1989, and using these clinical data, a series of progressively refined risk models have been developed by the STS Quality Measurement Task Force. These models afford excellent protection for providers, even when they care for the sickest patients. Englum and colleagues (The Annals of Thoracic Surgery, 2015) demonstrated that hospitals accepting the highest risk quintile of patients actually had the lowest ratio of observed to expected mortality, even in the hypothetical scenario in which all the highest risk patients from a 3-year period were clustered in a single year.

PERFORMANCE MEASURES

The earliest quality metrics in cardiothoracic surgery were limited to one procedure, CABG, and one outcome, risk-adjusted mortality. As CABG frequency has declined and other procedures have become more common, assessing cardiac surgery performance by CABG alone is no longer appropriate.

Measuring quality based only on risk-adjusted mortality is also problematic. Mortality rates have declined substantially, a gratifying trend but one that makes it statistically challenging to reliably discriminate performance based on a small number of deaths. It also is increasingly recognized that quality is a multidimensional concept and that death is only one of those dimensions. Patients and their families are equally concerned about the possibility of complications, such as a disabling stroke or dialysis-dependent renal failure.

In 2007, the STS Quality Measurement Task Force addressed these concerns by developing the first of a series of composite performance measures that encompass not only risk-adjusted mortality, but also the risk-adjusted occurrence of reoperation, stroke, prolonged ventilation, renal failure, or sternal infection. For CABG, this measure also included use of National Quality Forum (NQF)-endorsed medications and at least one internal mammary artery graft. Additional composite measures have now been developed for isolated aortic valve replacement (AVR), AVR + CABG, isolated mitral valve repair or replacement (MVRR), and MVRR + CABG. Using composite measures, the number of endpoints is substantially increased compared with measuring mortality only, and this improves measure reliability (signal to noise ratio) and the ability to discriminate performance.

Importantly, to determine outliers, STS tests the Bayesian probability (typically 97.5% to 99%) that a hospital’s performance is truly different than expected. With this approach, as opposed to using quartiles or quintiles, there is no predetermined, obligatory percentage of high or low outliers, an important feature as the quality of all programs improves.

NOT ALL HEALTH CARE QUALITY MEASURES ARE CREATED EQUAL

As evidence of our commitment to scientific integrity, STS submits all its performance measures to the NQF for endorsement, an extremely rigorous process conducted by technical experts and multistakeholder committees. Endorsement by NQF is confirmation of the highest level of scientific credibility. STS is honored to have the largest number of NQF-endorsed performance measures of any professional society (33 as of late 2015). These NQF-endorsed STS performance measures span the subspecialties of adult cardiac surgery, congenital heart surgery, and general thoracic surgery.

PUBLIC REPORTING

STS believes that public reporting is an ethical responsibility of the specialty. In 2010, STS partnered with Consumer Reports to make STS composite performance metrics publicly available, and a similar voluntary reporting program was subsequently initiated on the STS website. Public reporting provides patients and their families with reliable information to facilitate informed decision making.

Although existing studies from New York State suggest that report cards have had little market impact thus far, this is actively changing in today’s increasingly performance-centric environment.

continued on page 9 →
Navigate ICD-10 by Attending STS Coding Workshop

Now that the 10th revision of the International Classification of Diseases (ICD-10) is in effect, let STS help you and your practice make the transition as smooth as possible. Attend the 2015 STS Coding Workshop on November 12-14 in San Antonio, Texas.

The event kicks off on Thursday, November 12, with a session focused specifically on challenges following the ICD-10 transition. An update on CPT and RUC activities will be offered during Friday’s session. Friday and Saturday also will include sessions tailored to each discipline (adult cardiac, general thoracic, congenital heart, endovascular, and vascular surgery). The Workshop has been designed for cardiothoracic surgery coders, surgeons, and other billing professionals and will address new codes, policy changes, and common coding challenges.

Don’t miss this opportunity to network with colleagues and get expert answers to your questions. To view the agenda and register, visit www.sts.org/codingworkshop.

ICD-10 Webinars Available Now

In addition to attending the Coding Workshop, you can purchase access to a series of on-demand coding webinars from STS for both cardiothoracic surgery coders and surgeons. Coder webinars focus on the more common disorders and diagnoses for each subspecialty and show participants the differences between ICD-9 and ICD-10. Surgeon webinars cover the documentation changes that must be made by physicians to accommodate the specificity of ICD-10.

The webinars are available by discipline (adult cardiac, general thoracic, and congenital heart surgery) or as a complete bundle. Each purchase also includes a bonus webinar on the Procedure Coding System. Visit www.sts.org/webinars to make your purchase today.

The Annals Makes Highest Impact Ever

Thomson Reuters has released its 2014 Journal Citation Reports® data, and the impact factor for The Annals of Thoracic Surgery was 3.849—it’s highest ever.

The impact factor measures the frequency with which the average article in a scholarly or technical journal has been cited over a 2-year period.

“I think there are a number of things contributing to The Annals’ increasing impact factor,” said Editor G. Alexander Patterson, MD. “For one, our global footprint has expanded with the publication of more international papers, which provides more opportunity for other international authors to cite those works. Additionally, papers describing database or registry findings have had a bigger presence in The Annals recently, and these types of papers are very commonly cited.”

In fact, the top-cited paper for The Annals in 2014 was “Pulmonary Endarterectomy: Recent Changes in a Single Institution’s Experience of More Than 2,700 Patients,” which described a retrospective review of the University of California, San Diego Medical Center’s patient database.

The Annals’ 5-year impact factor, which is calculated differently than the annual impact factor, now stands at 4.014, the highest among all cardiothoracic surgery journals.

A subscription to The Annals is a benefit of STS membership. To view the journal online, go to www.annalsthoracicsurgery.org.

New Author Interview Videos From The Annals

The Annals of Thoracic Surgery now has an “Author Interviews” video series that highlights newly published research. Each video features the lead author describing his or her study’s significance, how the findings may affect surgical practice, and opportunities for future research. Subscribe to The Annals YouTube channel at bit.ly/1JIx3BE and receive alerts when new videos are posted.
AVOID PAYMENT REDUCTION BY SUBMITTING A 2015 PQRS CONSENT FORM

The STS National Database has once again been designated as a Qualified Clinical Data Registry for the Physician Quality Reporting System, and individual surgeons participating in the Adult Cardiac Surgery component of the Database are eligible to reap the benefits of this designation. In order to do so, those individuals must sign a consent form by October 31, 2015, that will allow STS to submit data on 16 different measures to the Centers for Medicare & Medicaid Services on their behalf. Surgeons who report these data for 2015 will avoid a 2% Medicare payment reduction in 2017. Visit www.sts.org/PQRS to download the consent form and learn more about the measures that STS will be reporting to CMS, including a new measure on patient-centered surgical risk assessment and communication. Plans are under way to extend PQRS benefits to participants in the General Thoracic Surgery component of the Database in the future.

If you have questions about PQRS, contact Donna McDonald, Senior Manager, STS National Database and Patient Safety, at dmcdonald@sts.org.
In Memoriam
JACK M. MATLOFF, MD
STS PAST PRESIDENT (2000-2001)

An STS Past President with a big personality, a big heart, and a big mission passed away on August 20 at the age of 82.

Jack M. Matloff, MD graduated summa cum laude with an undergraduate degree from Yale University in New Haven, Conn., followed by a medical degree in 1958 from Tufts University in Boston.

Early in his career, Dr. Matloff moved to Los Angeles, where he developed the cardiothoracic surgery department at Cedars of Lebanon Hospital, as well as the cardiothoracic surgery department and the heart and lung transplant programs at the new Cedars-Sinai Medical Center.

He’s credited with influencing the development of cardiac surgery centers in Japan, China, Germany, Russia, Colombia, and El Salvador. He also led a $15 million fundraising drive to establish a department of cardiothoracic surgery named in honor of his parents at Shaare Tzedek Medical Center in Jerusalem.

Cardiothoracic surgeon Jeremy Conklin, DO, MPH, MBA is the recipient of the 2015 STS/ACS Health Policy Scholarship, a joint offering from STS and the American College of Surgeons that enables a member surgeon to attend the intensive 2-weeklong Executive Leadership Program in Health Policy and Management conducted annually at Brandeis University near Boston.

This past June, Dr. Conklin attended the 2015 program, which addressed accounting, health care policy, health care finance, leadership, operations management, and conflict negotiation. “It was essentially a 2-year graduate curriculum in 1 week,” he said. A central debate during the course was whether health care is a private or public good.

Dr. Conklin said his favorite lecture was by Stuart H. Altman, PhD, an economist who was involved with the Clinton administration’s initial foray into universal health care. “[Altman’s] explanation of the motivations for the Affordable Care Act helped me understand the positives and negatives of the Act. He has a great breadth and depth of experience in health care, which he eloquently conveys in his lectures,” said Dr. Conklin, who recently began a surgical critical care/trauma surgery fellowship at Reading Hospital in Pennsylvania.

He added that he also enjoyed being among a diverse group. “It was extremely beneficial to meet people from different hospitals around the country and learn how other organizations are dealing with health policy issues,” he said.

“While there were differing opinions on many topics, the camaraderie of the course provided a respectful atmosphere for disagreement.”

The discussion was so engaging that course participants recently set up an online forum to continue exchanging ideas and advocating for health policy. The most recent topic of conversation was about the need for a research paper on whether only high-volume centers with low morbidity and mortality should be performing certain procedures.

As a scholarship recipient, Dr. Conklin will be appointed to serve a 3-year term on the STS/AATS Workforce on Health Policy, Reform and Advocacy, starting in January 2016.

Applications for the 2016 scholarship will be accepted later this year. Applicants must be members of both STS and ACS and between the ages of 30 and 55. Application materials, which include a curriculum vitae and a one-page essay discussing why a candidate wishes to receive the scholarship, are due February 1, 2016. The scholarship will help cover the costs of tuition, travel, and accommodations during the course.

For more information, visit www.sts.org/healthpolicyscholarship or contact Grahame Rush, Director of Information Services, at grush@sts.org or (312) 202-5848.

STS ENGAGES THE GENERAL PUBLIC VIA PRESS RELEASE PROGRAM

As part of its continuing effort to raise public awareness about STS, cardiothoracic surgery, and the role that cardiothoracic surgeons play in the health care arena, the Society issued nine press releases June 1–September 1, 2015. Read the press releases at www.sts.org/media and contact Cassie McNulty, Media Relations Manager, at cmcnulty@sts.org with any questions.
STS Members Advocate for Health Care Research Funding

STS members are leading the charge to protect funding for two government agencies that support health care research.

Two Congressional bills have put fiscal year 2016 funding on the chopping block for the Agency for Healthcare Research and Quality (AHRQ) and the Patient-Centered Outcomes Research Institute (PCORI). The Senate Labor, Health and Human Services, Education, and Related Agencies Appropriations Bill proposes to cut AHRQ funding by 35%, whereas the House bill would eliminate AHRQ funding and cut $100 million from PCORI.

Members of the STS Task Force on Longitudinal Follow-Up and Linked Registries, who advise on research that utilizes STS National Database data, learned of these efforts to cut funding and leaped into action. They realized that a key dataset for quality improvement initiatives—the Healthcare Cost and Utilization Project, which enables investigators to study health care delivery and patient outcomes over time—is funded by AHRQ and would, therefore, be affected by the quiet legislative effort to permanently defund the agency.

With the help of STS Government Relations staff, Task Force members and other interested STS members submitted op-eds defending AHRQ and PCORI for publication in newspapers around the country. Twenty surgeon advocates also took advantage of the August Congressional recess to meet with representatives in their home districts, away from the noise and distractions in Washington.

By utilizing these tactics, the hope is that members of Congress will begin to see the tangible benefits that these research dollars provide for their constituents, rather than viewing them as budget line items to be eliminated.

“AHRQ and PCORI provide millions of dollars of support to STS member investigators for critical research on comparative effectiveness, patient safety, and patient-centered outcomes,” said Task Force Chair Felix G. Fernandez, MD, MSc, who has led these advocacy efforts. “Patients with acquired and congenital heart disease and thoracic malignancies benefit greatly from this work. Continued funding of AHRQ and PCORI is needed so that we can provide our patients with the most advanced and effective care.”

STS-PAC resources also are being employed to reinforce the grassroots message delivered by STS members. By attending targeted fundraisers for Congressional candidates and participating in important follow-up meetings with key players in Congress, STS is helping to ensure that cardiothoracic surgeons’ concerns resonate on Capitol Hill. The Society will continue to monitor these bills as they move through the legislative process.

Dedicated STS members have set an instructive example for how to best leverage the political resources at their disposal, and the wider STS membership is encouraged to join this effort. Help ensure the future viability and effectiveness of AHRQ and PCORI by contributing to STS-PAC at www.sts.org/pac and contacting the STS Washington, DC, office at advocacy@sts.org for more information on how you can get involved.

STS HOLDS STRUCTURAL HEART SYMPOSIUM

At Masters in Structural Heart and Valve Surgery: A Case-Based and Hands-On Symposium, held August 28-29 in Chicago, about 100 faculty members and attendees discussed the latest innovations in transcatheter therapy for aortic, mitral, and tricuspid valve diseases, as well as traditional surgical techniques and managing atrial fibrillation. Here, course director Wilson Y. Szeto, MD (right) instructs attendees during the hands-on portion of the course.
Cardiothoracic Surgeons Provide Aid to Nepal Earthquake Victims

When a devastating 7.8 magnitude earthquake struck the South Asian nation of Nepal last April, Emily A. Farkas, MD was among the cardiothoracic surgeons who sprang into action. Dr. Farkas has participated in charitable surgical missions in several countries, including Peru, Mongolia, Vietnam, Nigeria, and Haiti, but this was her first time assisting with disaster relief.

“In it was like a war zone without enemies.”
—Emily A. Farkas, MD

Dr. Farkas and a team of 35 surgeons, nurses, and other health care workers planned to leave for Nepal that same week as part of an STS/Thoracic Surgery Foundation for Research and Education/Edwards Lifesciences Foundation Every Heartbeat Matters project. Their mission, through the non-governmental organization CardioStart International, was to help establish a not-for-profit cardiac surgical program at Kathmandu University Hospital at Dhulikhel.

Because of the massive earthquake and the overwhelming need for medical care and humanitarian aid, the mission was changed so that Dr. Farkas and her team could provide the medical assistance so urgently needed.

Twenty-one of the original team members arrived in Nepal on May 3, including Dr. Farkas and CardioStart founder Aubyn Marath, FRCS, MBBS, MS, a cardiothoracic surgeon and STS member. They handled it. They have so much strength and courage, and they managed the adversity with grace and poise.

Team members started by helping physicians and nurses at Dhulikhel Hospital, which serves the entire Kathmandu Valley and much of eastern Nepal. They saw many orthopedic injuries, complex lacerations, burn injuries, and inhalation injuries.

“Almost half of the hospital staff had lost their own homes. It was really remarkable that they were still there prioritizing the care of these patients. That kind of selflessness is inspiring,” said Dr. Farkas.

A SECOND EARTHQUAKE STRIKES

On the team’s 10th day in Nepal, the country was hit by a second major earthquake, which collapsed already weakened structures and triggered landslides in the mountain and valley areas.

“We had just started to bring patients inside again after evacuating from the first earthquake, but then we had to move the entire hospital, except ventilated patients and the OR, outdoors again under make-shift tents and tarpaulins,” explained Dr. Farkas. “We also slept outside in our own tents and bivouacs. It was like a war zone without enemies.”

CardioStart had already sent two 40-foot shipping containers of supplies for the original cardiac surgery mission. The team utilized many disposable products, like bandages and tape, for the disaster relief.

“During the second earthquake, people overreacted because they were so traumatized from the first one. Some people jumped out of windows, resulting in spinal column fractures from the impact,” she said.

ASSISTANCE SPREADS BEYOND DHULIKHEL

In addition to their work at Kathmandu University Hospital, CardioStart team members also assisted in two villages outside of Dhulikhel.

They provided medical supplies, clinical support, and food and water filtration...
They also met with leaders in one of the villages who were worried that the school for 300 children and 21 teachers had been destroyed and couldn’t be rebuilt in time for the upcoming monsoon season.

Because Kathmandu is home to several tent-making companies that specialize in mountaineering expeditions, team members were able to find a company that could make 13 heavy-duty, classroom-sized tents in a week.

“To be able to put that together and get the tents up with the people in the village was so heartwarming,” Dr. Farkas said. “The children were so proud and happy to have their school back.”

She said she also was moved by the outpouring of support from her cardiothoracic surgery colleagues, including STS members, who either donated to the effort or secured help from their institutions.

John B. Holt, MD, from Florida Hospital Memorial Medical Center in Daytona Beach, was one such member. He became acquainted with Dr. Farkas when she was working on an interim basis at a local hospital.

“After seeing the e-mail from STS, I went to my hospital administration and asked them if they would help, and I was surprised by how quickly they wrote a check,” he said. “I was really impressed by what she was doing. She’s structured her whole career around these missions.”

Dr. Farkas will travel back to Nepal in November and move forward with the original plan to establish a cardiac surgery program.

“We were a little hesitant to even discuss that with Nepali physicians, but they were actually very eager to move forward; they didn’t want to let the earthquakes hold them back,” she said.

---

**Annual Meeting to Feature Session on Disaster Relief**

A new session on Tuesday, January 26, 2016, at the STS 52nd Annual Meeting in Phoenix, Arizona, will focus on the role of cardiothoracic surgeons in coordinating disaster preparedness protocols and managing mass casualty situations. Expert panelists will include Dr. Farkas and world-renowned cardiothoracic/trauma surgeon Kenneth Mattox, MD, who will share his personal experience in the wake of Hurricane Ike. Register for the meeting at www.sts.org/annualmeeting.

---

**STS Leaders Attend CACVS Meeting**

STS leaders were invited to the recent Chinese Association of Cardiovascular Surgeons meeting in Shanghai. Pictured from left are STS Member Yu Chen, MD, STS Treasurer Robert S.D. Higgins, MD, MSHA, STS President Mark S. Allen, MD, CACVS President and STS Workforce on International Relationships Member Gao Changqing, MD, and STS Executive Director & General Counsel Robert A. Wynbrandt.
STS 52nd Annual Meeting to Feature New Technology, Lively Debates

and how to incorporate quality initiatives into your thoracic surgical practice,” said Leah M. Backhus, MD, Co-Chair of the Surgical Symposia Task Force.

Congenital heart surgeons can look forward to discussions on atrioventricular septal defects, the arterial switch operation, tetralogy of Fallot, and hypoplastic left heart syndrome.

In particular, the congenital surgical symposium on Sunday afternoon will spark conversation regarding several controversial topics. “In the first half, intraoperative videos will be shown to demonstrate different ways of performing complex neonatal operations,” said Andrew C. Fiore, MD, Co-Chair of the Surgical Symposia Task Force. “The second half will be a debate between surgeons and cardiologists covering three fairly controversial but common problems in pediatric cardiac surgery.”

TECH-CON FOCUSES ON NEW TECHNOLOGY

In 2016,STS/AATS Tech-Con will sharpen its focus on new devices and procedures that have yet to be approved by the US Food and Drug Administration, but could be available (with FDA approval) within 1-3 years from the time of presentation. (See related story in the Summer 2015 issue of STS News.) The new format will reveal cutting-edge technology before it’s available to the public—giving attendees time to prepare their practices.

“One of the most exciting parts of Tech-Con will be the ‘Shark Tank’ session. Inventors will give a brief elevator pitch about their technology, and a panel of experts will critique the ideas,” said Tech-Con Task Force Co-Chair Gorav Ailawadi, MD.

The presentations will cover the newest robotic, haptic, and stapling technology, plus minimally invasive access procedures.

“Specifically in the general thoracic sessions, we’ll feature new ways to treat lung cancer, potentially using percutaneous access to ablate tumors in a way that’s never been done before,” said Tech-Con Task Force Co-Chair Shanda H. Blackmon, MD, MPH.

INTERNATIONAL COLLABORATIONS HIGHLIGHTED

A number of sessions will feature perspectives from international experts. Not only is STS partnering with EACTS, but sessions also have been developed in collaboration with the European Society of Thoracic Surgeons, the Canadian Association of Thoracic Surgeons, and the Canadian Society of Cardiac Surgeons.

The International Symposium & Reception on Monday, January 25, will focus on the viability and ethics of employing new technologies to treat rheumatic heart disease, endocarditis, and mitral valve disease in various parts of the world.

“Cardiothoracic surgery really is a specialty that traverses all geographies, so most of the meeting content will be germane and appropriate for the entire international community,” Dr. Bavaria said.

ONE-STOP SHOPPING

New this year, STS 52nd Annual Meeting Online is included with registration, Early Riser Sessions no longer require a separate fee, and a new Weekend Pass is being offered so that Annual Meeting attendees can sample the wide variety of weekend courses. (See page 15 for more details.)

STS will provide additional updates on new courses and various other opportunities in the coming months. The latest information, including a PDF of the Program at a Glance, is available at www.sts.org/annualmeeting. A printed Advance Program also will be mailed in late November.

The Society of Thoracic Surgeons is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

STS 52nd Annual Meeting: The Society of Thoracic Surgeons designates this live activity for a maximum of 34.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

NEW!
Annual Meeting Online
Included with Meeting Registration

New this year, access to the STS 52nd Annual Meeting Online is included with Annual Meeting registration. With such a full meeting schedule, it’s impossible to attend every presentation of interest. This web-based video presentation will let you earn CME credit for sessions you were unable to attend—or review sessions of special interest—in the comfort of your home or office. The Online product will be available approximately 1 month after the conclusion of the Annual Meeting and will be accessible for up to a year. It also will be available for purchase by those who cannot attend the meeting.

The Society of Thoracic Surgeons is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

STS 52nd Annual Meeting Online: The Society of Thoracic Surgeons designates this enduring material for a maximum of 10.475 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
The STS 52nd Annual Meeting will feature two inspiring guest lecturers.

**THOMAS B. FERGUSON LECTURE**

Scott Parazynski’s career has taken him from the emergency room, to the summit of Mount Everest, and even to outer space. In January, he will share the lessons he’s learned with Annual Meeting attendees as the 2016 Thomas B. Ferguson lecturer.

Dr. Parazynski was 22 months into an emergency medicine residency in Denver when he was selected for the NASA astronaut corps. He flew a total of five space shuttle missions and conducted seven spacewalks, logging more than 1,381 hours (over 8 weeks) in space. He’s also summited Mount Everest and invented a number of medical devices and other technologies for life in extreme environments.

“Scott is a Professor of Practice and University Explorer at Arizona State University, and I think you’ll find his outlook on life and his idea of leadership and creativity very interesting,” said STS President Mark S. Allen, MD. “He has quite a vision for how space will be developed over the next several years, which should make for a fascinating talk.”

The Ferguson Lecture will take place at 9:00 a.m. on Tuesday, January 26, 2016, at the Phoenix Convention Center.

**C. WALTON LILLEHEI LECTURE**

The 2016 C. Walton Lillehei lecturer will be Gary Taubes, an award-winning science journalist who has shaken up the status quo and challenged conventional wisdom regarding diet, weight gain, and heart disease with his New York Times-bestselling books Good Calories, Bad Calories and Why We Get Fat.

Taubes’ hypothesis is that the “low fat equals good health” dogma is not supported by scientific research and that high-carbohydrate diets contribute to cardiovascular disease and obesity.

“He has excellent ideas about how we should study this, and it will definitely open up your mind about what you’re eating, as well as help us communicate that to our patients,” Dr. Allen said.

Don’t miss the C. Walton Lillehei Lecture at 11:00 a.m. on Tuesday, January 26, 2016, at the Phoenix Convention Center.

For more information on this speaker, please visit www.prhspeakers.com.

---

**Abstract Notification Letters Sent**

If you submitted an abstract and/or surgical video for presentation consideration at the STS 52nd Annual Meeting, peer-reviewed selection results recently were distributed. Approximately 1,000 abstracts were submitted for the Annual Meeting in the following categories:

- Adult Cardiac Surgery: 446
- General Thoracic Surgery: 272
- Congenital Heart Surgery: 130
- Other: 48
- Basic Science: 47
- Critical Care: 35

Registration and housing for the STS 52nd Annual Meeting are available at www.sts.org/annualmeeting. Early bird registration rates will end December 1, 2015. Additionally, you must register by January 4, 2016, to reserve housing at the special Annual Meeting rate. New this year, the registration process has been simplified.

- Annual Meeting registration provides access to the Opening Reception on Sunday, January 24, and all educational sessions on Monday, January 25, and Tuesday, January 26, with the exception of the International Symposium (Monday) and Ethics Debate (Tuesday). STS University (Wednesday, January 27) also is priced separately.

- Tech-Con registration provides access to all STS/AATS Tech-Con 2016 educational sessions on Saturday, January 23, and Sunday, January 24.

- The new Weekend Pass provides access to all educational sessions on Saturday, January 23, and Sunday, January 24, other than Tech-Con. (You must register for the Annual Meeting in order to register for a Weekend Pass.)

You also may purchase a separate ticket for the Monday night Social Event, an evening of mariachi music, delicious food, and ice-cold margaritas at Corona Ranch.

Cardiothoracic surgeons who are not STS members but who submit completed application materials for Active or International Membership by October 15, 2015, can register for the meeting at a reduced rate.

For more information about registration, visit www.sts.org/annualmeeting or contact the Society’s official registration partner, Experient, at (800) 424-5249 (toll free), 00-1-847-996-5829 (for international callers), or sts@experient-inc.com.
The Society of Thoracic Surgeons gratefully acknowledges the following Platinum Benefactor for providing an educational grant for the STS 51st Annual Meeting in San Diego:

Abbott Vascular

Platinum Benefactor
Provided $50,000 or more