Naunheim Points to Resilience as Key to Survival

Cardiothoracic surgery has been under attack for several decades. Beginning with diagnosis-related groups, the specialty was hit by reduced reimbursement, lower patient volume, and a shrinking workforce. Instead of getting angry, cardiothoracic surgeons got resilient. They worked to influence federal policy, used data to change practice patterns, improved medical guidelines and began to change the face of the specialty, said 2018-2019 STS President Keith S. Naunheim, MD during his Presidential Address on Monday.

He described how the change began in the mid-1990s when Robert Replogle, MD was STS president and CMS proposed a 45% reimbursement cut to move nurse practitioners, physician assistants, and surgical assistants out of surgical practices and into hospitals.

“He resolved to address this in a strong but constructive fashion,” Dr. Naunheim said. “He restrained his anger, reassessed the situation, and responded to the threat. These days the word for that kind of reaction is resilience, the capacity to recover quickly from difficulties with the ability to spring back or rebound. Resilience means you bend but you do not break. And STS does just that.”

Dr. Naunheim’s address was titled Anger Management 101: Why Am I Angry? Let Me Count the Ways. In retrospect, he said, it should have been called Resilience 101: How Can We Fight Back Against Those SOBs?

For Dr. Replogle, fighting back meant a $1,000 special assessment from each STS member. The Society put together an aggressive, $6 million lobbying campaign in Washington, DC. The campaign resulted in a $1.6 billion increase over 10 years for cardiothoracic surgeons compared to the previous 10 years.

Robert S.D. Higgins Elected 2019-2020 President

Johns Hopkins surgeon plans forward-thinking strategies to keep cardiothoracic surgery ‘relevant and exciting’

Renowned heart-lung transplant surgeon Robert S.D. Higgins, MD, MSHA was elected by the STS membership yesterday evening as the Society’s 2019-2020 President.

“I’m humbled by the recognition from people who have come before me—to assume that I have the street credibility and the maturity to serve in this role,” said Dr. Higgins, Surgeon-in-Chief of The Johns Hopkins Hospital in Baltimore, as well as the William Stewart Halsted Professor of Surgery and Director of the Department of Surgery at The Johns Hopkins University School of Medicine. “The STS Presidency is a big job with lots of stakeholders. Our responsibility is to make our specialty relevant and exciting for the next generation, while also honoring the past and creating a sustainable future. We have to do that now.”

Part of creating a sustainable future, according to Dr. Higgins, is giving back to the cardiothoracic surgery specialty, the community, and those who are less fortunate. One of the quotes that has inspired and motivated him came from Winston Churchill: “We make a living by what we do, but we make a life by what we give.”

Dr. Higgins’s decision to become a doctor resulted from a combination of personal expectations shaped by his family and life circumstances. It also was a way to honor his father’s legacy. Robert Higgins Sr., MD, a general practitioner who had just opened a practice in Charleston, SC, was tragically killed in a car accident when young Robert was just 5 years old.

“In the 50s and 60s as an African American, my dad was fortunate to have the ability to get a medical degree,” said Dr. Higgins. “He went back to his community, which was segregated, to serve the people who did not necessarily have the same rights to receive care as the majority did. My dad’s life was cut short before he could affect the changes that I think he would have made.”

For his father’s death, Dr. Higgins and his two younger brothers were raised by their mother, Patricia Higgins, and their grandparents in Albany, NY. “My grandparents and my mom were my heroes,” said Dr. Higgins. “I embodied their principles as they sacrificed extraordinary things to benefit us and serve our community as much as we serve our own best interests. To this day, that lesson has had an impact on my career and my focus.”

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Complications that are seen in On-Pump Surgery, including stroke, transfusion, and post-surgical neurological complications, may be reduced with Off-Pump Beating Heart Surgery (OPCAB).

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Two Honored for Selfless Service and Commitment to STS

In honor of their outstanding work and significant contributions, Douglas E. Wood, MD and James M. Levett, MD each were presented with a 2019 STS Distinguished Service Award at the Annual Membership (Business) Meeting yesterday evening.

“Cardiothoracic surgery is one of the most successful stories in all of medicine,” said 2018-2019 STS President Keith S. Naunheim, MD. “As members of this specialty, we feel a responsibility to give back and make sure that our discipline does not merely survive but that it continues to thrive. That type of success is exactly what Doug Wood and Jim Levett have helped us achieve in the past two decades. Like so many cardiothoracic surgeons before them, they have worked tirelessly to pursue improvements in cardiothoracic care that have greatly benefitted patients and saved lives.”

DOUGLAS E. WOOD, MD
SEATTLE, WASHINGTON

An STS member since 1995, Dr. Wood has been a long-time volunteer. He has served on the Society’s Board of Directors as President and as Secretary, as well as held positions on other governance bodies, including the Executive Committee, Finance Committee, Standards and Ethics Committee, Workforce on Health Policy, Reform and Advocacy, and Workforce on Critical Care. In addition, Dr. Wood currently is President of The Thoracic Surgery Foundation, the Society’s charitable arm.

A world-renowned surgeon in thoracic oncology, Dr. Wood specializes in lung and esophageal cancer. He is a national and international leader in the management of complex airway diseases and in the surgical management of end-stage lung disease. He has used that expertise to help secure Medicare coverage for low-dose computed tomography lung cancer screening for at risk-populations in his roles as Chair of the National Comprehensive Cancer Network (NCCN) Lung Cancer Screening Panel and Vice-Chair of the NCCN Non-Small Cell Lung Cancer Panel. Dr. Wood also has represented the Society on the Lung Cancer Guidelines panel of the American College of Chest Physicians. Throughout his career, Dr. Wood has been a prolific surgeon-scientist, with more than 20 grants and 200 publications. He also has been devoted to graduate medical education. Passionate about working with residents and junior faculty in both US and international programs, he has been a visiting professor at approximately 50 institutions worldwide.

Dr. Wood received his undergraduate and medical degrees from Harvard University and completed his general surgery and cardiothoracic surgery residencies at Massachusetts General Hospital in Boston. After spending a formative year as a surgical registrar at the Royal North Shore Hospital in Sydney, Australia, he was recruited to Seattle to lead a new section of general thoracic surgery at the University of Washington, where he is currently the Henry M. Harkins Professor and Chair of the Department of Surgery.

“As Dr. Wood is respected and admired by his peers. Early in his career, one could spot that he was the type of individual who was going places—and he has certainly fulfilled on that prophecy,” said Dr. Naunheim. “Doug has remarkable skills both in and out of the operating room. He has excelled in clinical research and proven adept at building and organizing surgical divisions and departments. He also is an outstanding teacher, unstinting in generosity and never hesitating to shine the light on the achievements of others. Dr. Wood has very ably served our Society for 20 years, and we are much better because of his work.”

In addition, Dr. Levett has worked diligently behind the scenes to advance key issues facing cardiothoracic surgeons and their patients. In fact, he has met several times with recently elected Congresswoman Abby Finkenauer, who has opposed efforts to defund organizations that offer cancer screenings, preventative care, and other health services. In his conversations with Rep. Finkenauer, Dr. Levett highlighted the importance of the STS National Database and the need for legislation that would facilitate a linkage between clinical data from the Database with Medicare claims data. He also explained the importance of understanding value in health care.

After graduating cum laude from Carleton College, Dr. Levett earned his medical degree from the University of Iowa Carver College of Medicine in Iowa City. He completed his general surgery and cardiothoracic surgery residencies at The University of Chicago Hospitals, in addition to post-graduate work in electrophysiology at Duke University Medical Center in Raleigh-Durham, NC. Before joining his current practice at the Physicians’ Clinic of Iowa in Cedar Rapids, Dr. Levett was Chairman of the Department of Surgery at Lutheran General Hospital in Park Ridge, IL.

With more than 50 years of diverse experience in cardiac, thoracic, and vascular surgeries, Dr. Levett is an expert in process management and the implementation of quality management system principles in health care organizations. In addition, he has authored and/or contributed to more than 100 articles, books, and scientific abstracts.

“The Lillehei is the prototype of the broadly trained and fully capable cardiothoracic surgeon,” said Dr. Naunheim. “He does it all. The practice scope requires broad knowledge and the experience to be able to expertly treat not only diseases of the heart, but also those of the chest wall, mediastinum, lung, and esophagus. His remarkable career is emblematic of that kind of ability. He also has contributed literally thousands of hours to further the interests of STS members, as well as their patients, and has asked for nothing in return. No applause. No limelight. Dr. Levett exemplifies the type of unsung hero that deserves this recognition.”

The Distinguished Service Award, established in 1969, recognizes individuals who have made significant and far-reaching contributions to STS and the specialty.

JAMES M. LEVETT, MD
CEDAR RAPIDS, IOWA

Dr. Levett—an STS member since 1987—currently is a pivotal member of the Workforce on Coding and Reimbursement and serves as the STS Advisor to the American Medical Association Relative Value Update Committee (AMA-RC), where he presents proposed coding and reimbursement changes on behalf of the Society. His previous STS experience includes service on the Workforce on Patient Safety and the Workforce on Coding and Reimbursement.

“As members of this specialty, we feel a responsibility to give back and make sure that our discipline does not merely survive but that it continues to thrive. That type of success is exactly what Doug Wood and Jim Levett have helped us achieve in the past two decades.”

KEITH S. NAUNHEIM, MD
Proven Design. Proven Outcomes.

Designed specifically for the thoracic aorta, to give you confidence even in the most challenging cases.

The RelayPlus Dual Sheath Technology helps ensure accuracy while maintaining control to keep you ahead of the curve.

Now backed by Phase II Clinical Data:
- No occurrence of stroke at the 30 day time period
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- 0 Access Failures

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Diversity is not about political correctness, according to Joan Y. Reede, MD, MPS, MBA, of Harvard Medical School. “It is about improving the care we deliver as physicians every day.”

Dr. Reede made her case during a diversity and inclusion session on Monday, calling on all STS members to take a good look at their hospitals and departments and work toward developing a wider, more experienced talent pool that could better address patients’ needs. “Working to improve diversity will change patient outcomes and move organizations forward. Unless cardiothoracic surgery embraces all racial, ethnic, and gender groups, the practitioner shortage will become even more acute,” she warned.

She presented statistics reflecting a lack of diversity in medicine, with a majority of medical school faculty being white (61.3%), followed by 16.2% Asian, 3.1% African American, 2.7% Hispanic, and one-tenth of one percent American Indian, Hawaiian, or Pacific Islander. Dr. Reede described the barriers to inclusion as many and familiar. They include difficulties in preparation, opportunity, and resources to pursue medical education and advancement. In addition, she said that minorities are often not taken seriously.

She used Google to illustrate. A search of images for “smart person” turned up a screen of white males. Her queries for “doctor,” “surgeon,” and “professor” found similar token, isolated and excluded,” she said. “You are invisible and hyper visible at the same time. It can be an extremely uncomfortable place.”

In order to change the dynamics, Dr. Reede said it has to start with vision. She said that Harvard Medical School has incorporated diversity, equity, and social justice into its mission and values statements; the next step includes collecting data. “Are minority students as likely to stay or return as residents, fellows, and junior faculty? If not, why? And what would convince them to stay?” she asked. “Tracking diversity and reporting the results publically supports positive efforts to change.”

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Joan Y. Reede, MD, MPS, MBA

Meet the Experts

The foremost experts in a variety of cardiothoracic surgery topics will be available to answer your questions at seven Meet the Experts sessions held today from 11:00 a.m. to 12:00 p.m. These sessions provide an in-depth look at the issues, with question-and-answer time emphasized over more formal presentations.

**Session 1:** What Women Cardiothoracic Surgeons and Trainees Should Know About Fertility | Room 32

**Session 2:** Tips and Tricks for Veno-Arterial Extracorporeal Membrane Oxygenation in Cardiogenic Shock | Room 29AB

**Session 3:** Surgery and Immunotherapy for Resectable, Unresectable, and Oligometastatic Non–Small-Cell Lung Cancer | Room 33

**Session 4:** Percutaneous Endoscopic Myotomy: Growing a Program and Appropriate Use | Room 30E

**Session 5:** Stents in the Right Ventricular Outflow Tract for Tetralogy of Fallot | Room 31AB

**Session 6:** Management of the Small Aortic Root | Room 29CD

**Session 7:** Functional Mitral Regurgitation in 2019 and Beyond | Room 30ABCD

Mara B. Antonoff, from Houston, will be among the panelists at the session on cardiothoracic surgeons and fertility.
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Booth 917

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With the meeting under way, attendees had the privilege of learning about late-breaking scientific research and experiencing great networking opportunities with colleagues and friends from around the world. Hot topics from the meeting were featured in the Society’s Press Conference. Douglas E. Wood, MD and James M. Levett, MD were presented with the 2019 Distinguished Service Award, and Robert S.D. Higgins, MD, MSHA was elected President of the Society.
Edwards Lifesciences

Irvine, CA

Edwards Lifesciences, based in Irvine, Calif., is a global leader in patient-focused medical innovations for structural heart disease. Driven by a passion to help patients, the company collaborates with the world’s leading clinicians to address unmet healthcare needs. For more information, visit www.Edwards.com or @EdwardsLifec.

Elsevier

Philadelphia, PA

Elsevier is the proud publisher of The Annals of Thoracic Surgery. In addition to providing information solutions that enhance the performance of science, health, and technology professionals. Elsevier empowers better decision making and the delivery of better care. www.elsevier.com

Essential

Durham, NC

Essential Pharmaceuticals, LLC is a specialty pharmaceutical company devoted to the development and sales of pharmaceutical products including Custodiol® HTK organ preservation solution and a variety of retractors, instruments for MICS aortic, TAVI and robotic surgeons as well as coronary graft markers and myocardial needles. Genesee Biomedical Inc. Denver, CO USA www. geneseebiomed.com

Getinge

Wayne, NJ

Getinge is a leading global provider of innovative solutions for operating rooms, intensive-care units, hospital wards, sterilization departments and other medical equipment companies. Based on first-hand experience and close partnerships, Getinge offers innovative solutions that improve every-day life for people, today and tomorrow.

Gore & Associates

Flagstaff, AZ

Gore Medical Products Division engineers devices that treat a range of cardiovascular and other health conditions. With more than 40 million medical devices implanted over the course of more than 40 years, Gore builds on its legacy of improving patient outcomes through research, education and quality initiatives. Gore is joined in service with clinicians to improve lives.

Hacksack Meridian Health

Windsor, United Kingdom

HCA is the largest international general thoracic surgery organization with over 1600 members from 25 countries. The society’s mission is to improve quality in the specialty, from clinical and surgical management of patients to education, training, and credentialing of thoracic surgeons worldwide. 27th European Conference on General Thoracic Surgery, 9 – 12 June 2019, Dublin, Ireland. www.easts.org

Evahet, Inc

Houston, TX

Evahet, Inc is a medical device company based in the Houston Texas Medical Center that is bringing the Left Ventricular Assist System known as EVAHEART®2 through clinical trials, regulatory approval, and eventual commercial distribution. We believe exceptional patient outcomes only come through a dedicated community of care, placing our physicians at the forefront.

Heart Hospital Baylor Plano, The

Plano, TX

The Heart Hospital Baylor Plano (THBP) is a cardiovascular specialty hospital in North Texas that opened in 2007. Over the past 10 years, our quality outcomes and patient satisfaction scores have garnered recognition as a top hospital and accolades from international giants in the healthcare field. Visit TheHeartHospitalBaylor.com to learn more.

Heart Valve Society

Beverly, MA

Heart Valve Society (HVS) “The Heart Team In Action” Save the date for HVS 2019 and join over 400 medial professional and 80 plus senior surgeons in 60 plus cities across the world. Our goal is to promote and provide ongoing education and information to patients.

Kapp Surgical

Cleveland, OH

Kapp Surgical is a custom design shop which designs surgical instruments and implants, manufactures them, and sells as does direct to cardiologists and interventionalists. Kapp’s exclusive products are: The Cosgrove Heart Valve, Strip T’s surgical organizer, and countless surgical devices all FDA approved with several pending approval.

Liu Med Group

Las Vegas, NV

Liu Laser Engineering/Heart Laser 1140

Nashville, TN

LifeNet Health

Virginia Beach, VA

LifeNet Health helps save lives, restore health, and give hope to thousands of patients each year. We are the world’s most trusted provider of transplant solutions, from organ procurement to new innovations in bio-implant technologies and cellular therapies—a leader in the field of regenerative medicine, while always honoring the wishes and healthcare professionals that allow the transplant process.

LivaNova

Arvada, CO

LivaNova is a global healthcare company delivering life-changing medical technology and innovative solutions for Windows, Mac and Mobile platform. For more information visit our web site at www.livenova.com

LocumTenens.com

Alpharetta, GA

Since 1995, LocumTenens.com has been a leader in placing physicians and advanced practice professionals in short-staffed healthcare facilities. LocumTenens.com also operates the largest job board in the industry, providing access to thousands of jobs, in all medical specialties, for free.

LoupCam®, Instruments and Company

Las Vegas, NV

LoupCam® Instruments and Company provides innovative HD Cameras for your loupes and light systems. Our platform software solutions for Windows, Mac and Mobile Solutions. Recording HD videos has never been easier with our proprietary CreoCam® line. More intuitive than ever: Please visit us @loupcam.com

LSI Solutions

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LSI SOLUTIONS® is a medical device company dedicated to advancing minimally invasive thoracic surgery through research, development, and manufacturing of minimally invasive surgical instruments. Our goal is ultimately to serve a patient. Our technology challenges human illness. Our mission is to lead the world in medical product innovation.
2019 EXHIBITOR MAP

**Career Fair**
Meet face-to-face with employers at the STS/CTSNet Career Fair. Recruiters will be available to talk about career opportunities; see a list of participating companies on page 11.

**Learning Lab Theater**
Exhibiting companies and others will present talks and demonstrations. See page 17 for a list of presentations.

**STS Exhibit Hall Hours**
Tuesday 9:00 a.m. – 1:30 p.m.

**STS Booth (#601)**
Hear about the latest the Society has to offer, including member benefits, advocacy efforts, educational courses, e-learning modules, the STS Research Center, and the STS National Database.

**Headshots (#602)**
Have a professional headshot taken for business or personal use, compliments of STS.

**Posters**
Scientific posters are electronic this year, and several monitors are available for viewing.

Stop by our booth to see our innovations.

Innovation through collaboration.
developed for the #1 Cardiac Hospital in the world to advance the standard of cardiac care.

Terumo
Ann Arbor, MI
Terumo will display the VirtuSaph® Plus Endoscopic Vessel Harvesting System, Beating Heart and Surgical Stabilization products, Terumo® Perfusion Products, and new data management solutions. Terumo Aortic will display the most comprehensive portfolio of products in the aortic space - providing solutions that meet the global needs of clinicians.

Thompson Surgical
Traverse City, MI
Thompson Surgical is a leader in exposure and the original manufacturer of the table-mounted Thompson Retractor. Cardiovascular surgeons will benefit from the Thompson Bolling Retractor. The Bolling Retractor provides extremely low profile, stable, and uncompromised Exposure of the heart structures for valve procedures. “Set it and forget it.” - Steven Bolling, MD

Transonic
Ithaca, NY
Transonic is the original inventor and innovator of transit-time flow measurement devices for CABG surgery, CHD Repair, CPB and ECMO cases. For over 33 years, Transonic flow measurement systems have been used to advance physiologic understanding as well as to provide surgeons with peace of mind that their anastomoses are patent prior to closure.

Veran Medical Technologies
St. Louis, MO
Veran is a privately held medical device company headquartered in St. Louis, MO. The company’s main focus is assisting physicians in the early diagnosis and treatment of lung cancer. Veran has developed and commercialized an FDA cleared, next generation electromagnetic navigation platform called the SPIN Thoracic Navigation System, which includes both endobronchial and transthoracic approaches.

Vitalcor, Inc
Westmont, IL
Vitalcor, Inc. is a supplier of medical devices used primarily in Cardio-Thoracic Surgery. Since 1975, Vitalcor has provided products that take root from teaching and practicing surgeons to make their practice easier. We pride ourselves on offering quality products and providing exceptional customer service.

Weatherby Healthcare
Fort Lauderdale, FL
Since 1995, Weatherby Healthcare has established itself as an expert in locum tenens staffing for physicians, physician assistants, and nurse practitioners. The company employs nearly 600 employees committed to filling locum tenens assignments in large-scale healthcare networks, hospitals, and clinics nationwide. Learn more at weatherbyhealthcare.com.

WebMD and Vitals.com
El Segundo, CA
WebMD and Vitals.com comprise the #1 online source for finding doctors. The directories generate 14M monthly visits. Providers utilize Enhanced Profiles to earn top search results and competitive placement.

Western Thoracic Surgical Association
Beverly, MA
The Western Thoracic Surgical Association is an organization of cardiothoracic surgeons from 13 western states and 4 western provinces of Canada, whose one-of-a-kind meeting combines first-rate scientific papers along with family-oriented activities. Please join us June 26-29, 2019 at Squaw Creek at Lake Tahoe in Olympic Valley, California.

Wexler Surgical, Inc
Houston, TX
Wexler Surgical designs and manufactures a variety of titanium and stainless steel specialty surgical instruments and products for Cardiac, Vascular, Thoracic, and Micro Surgery. Come see our VATS/MICS instruments and ask about our Optimus Series. Visit us online at www.wexlersurgical.com for more information about our products and services or email us at sales@wexlersurgical.com!

Wolters Kluwer
Philadephia, PA
Wolters Kluwer Health is a leading global provider of information and point of care solutions for the healthcare industry. Our solutions are designed to help professionals build clinical competency and improve practice so that healthcare organizations can succeed in value-based care delivery models. Product solutions include Lippincott, Ovid®, and UpToDate®

Zimmer Bionet Thoracic
Jacksonville, FL
Founded in 1927 and headquartered in Warsaw, Indiana, Zimmer Biomet is a global leader in musculoskeletal healthcare. We design, manufacture and market a comprehensive portfolio of innovative Thoracic products and treatment solutions for surgeons and patients including, the RibFix™ Blu Thoracic Fixation System and the SternaLock® Blu Primary Closure System.

ZipLine Medical, Inc
Campbell, CA
ZipLine Medical offers surgical (Zip Surgical Skin Closure) and chronic (PreLoc Wound Closure) solutions based on proven, non-invasive force distribution technology. Published clinical studies have demonstrated superior clinical and economic benefits vs. standard of care, including shorter procedure time, fewer wound-related complications and readmissions, and fewer post-operative provider visits.

ZipperBelt
Dallas, TX
ZipperBelt
Video-Based Sessions Offer Pearls for Common, Complex Procedures

Cardiothoracic surgeons are visual, hands-on practitioners and learners. Textbooks can be a useful starting point, but the most effective way to learn the technical nuances of common, yet challenging operations is by watching them being performed with expert commentary and extra time for questions. Three video-based “how-to” sessions will bring that visual focus to adult cardiac, congenital and pediatric cardiac, and general thoracic surgeries.

“Historically, we have had video sessions where a presenter creates a case video with narration, and we essentially press play,” said Dr. Adi Husain, MD, of the University of Utah in Salt Lake City, who will co-moderate the congenital and pediatric cardiac surgery session. “Our presenters have video clips, but they are presenting a specific topic, not showing how they managed an unusual case. These sessions are fixed on certain surgical interventions that we perform on a regular basis and are thought of as being more complex. This gives the more skilled and experienced surgeons in our field an opportunity to provide the pearls that helped them tackle a particular operation with greater precision and success.”

ADULT CARDIAC SURGERY

A new generation of devices and changes in surgical approaches are expanding life-saving treatments to ever-larger patient populations that may not have been good candidates for earlier technologies. These latest and greatest techniques in aortic valve surgery, mitral valve surgery, and heart failure surgery will be on display during the adult cardiac how-to video session.

One example is the MitraClip. Approved for use in the United States in 2013, it offered hope for patients with mitral regurgitation who were not eligible for conventional repair. The transcather device not only offers a new way to treat refractory mitral regurgitation, but also allows interventional cardiologists and cardiac surgeons to work together.

“We also have emergent techniques with aortic valve surgery that are expanding patient populations,” said co-moderator Ahmet Kilic, MD, of The Johns Hopkins Medical School in Baltimore. “It is no longer just aortic valve replacement; there are now techniques that allow us to replace aortic valves and retain the patient’s native aortic valve.”

Another technique that will be featured during the session is sutureless aortic valve replacement, which is moving into the mainstream. The technique relies on one or two guiding stitches and allows surgeons to replace a diseased valve in an expeditious manner. Sutureless replacement is not just a matter of saving time, Dr. Kilic noted. It also improves outcomes.

“As a whole, our patients are becoming increasingly complex,” he explained. “They need not just one procedure, but often multiple valves or bypasses at the same time. This is the patient population that could most benefit from these new techniques.”

Heart failure presentations will highlight extracorporeal membrane oxygenation and ventricular assist devices. Novel left ventricular assist devices (LVADs) are not only more durable than earlier generations, but can be implanted using a less invasive, non-sternotomy lateral approach. And for patients whose right hearts begin to fail after LVAD implantation, improved right-sided devices may be useful. Other patients may benefit from axial balloon pumps that allow them to be ambulatory and wait longer for a heart transplant.

CONGENITAL AND PEDIATRIC CARDIAC SURGERY

A dozen how-to videos will help surgeons avoid common pitfalls and simplify congenital and pediatric cardiac operations. The half-day session will focus on atrioventricular canal repairs, complex coronary anomalies in congenital heart defects, cardiac transplantation and mechanical circulatory support, and complex neonatal repairs for more unusual diagnostic challenges.

“The textbooks we employ do a good job of giving surgeons basic principles and guidelines for routine, straightforward presentations, but any pediatric heart surgery will tell you that no two cardiac lesions are the same,” said Dr. Husain. “That variety can create a good deal of anxiety and can clearly impact the development of a junior-level surgeon’s career.”

Pediatric cardiac surgery is a subspecialty in which surgeons commonly practice alone or with one or two partners, Dr. Husain added. The small or practice settings can be particularly difficult for junior and mid-level surgeons who do not have older, more experienced colleagues to share insights and wisdom gained from years of surgical experience.

“These sessions are profoundly important because they help fill a gap in terms of how we share our experiences with more junior and mid-level surgeons as they progress through their careers,” Dr. Husain said.

GENERAL THORACIC SURGERY

The half-day general thoracic surgery session will focus on three areas: esophagectomy, segmentectomy for resection of non-small-cell lung cancer (NSCLC), and minimally invasive thymectomy for management of thymoma and myasthenia gravis.

“We will start with strategies to manage colonic nodal disease following neoadjuvant treatment for esophageal carcinoma,” said session co-moderator Robert E. Merritt, MD, of The Ohio State University Wexner Medical Center in Columbus. “The other videos will focus more on the technical aspects of esophagectomy, starting with avoiding pitfalls during robotic esophagogastrectomy, creating the ideal gastric conduit, and preventing anastomotic leaks.”

Segmentectomy for NSCLC resection is a technically challenging procedure, but also an increasingly popular alternative to conventional lobectomy. One of the keys to success, Dr. Merritt noted, is recognizing when it may be appropriate to abandon segmentectomy for lobectomy.

Other presentations will focus on tips and tricks for identifying nodules, bronchial, and vascular anatomy during minimally invasive segmentectomy, different types of robotic and/or video-assisted thoracoscopic surgery, and strategies to deal with unusual anatomy and anatomic variants during minimally invasive segmentectomy.

“The final session will focus on the mediastinum with both thoracoscopic and robotic thymectomy for myasthenia gravis and different approaches to the excision of large thymomas,” Dr. Merritt said. “That is going to be a particularly interesting set of videos.”

None of the videos or presenters were chosen at random, he added. “These are procedures you encounter in daily practice, and you’ll learn from the best—the surgeons who have the highest volumes and the best outcomes,” he said. “These video how-to sessions are gold.”

“My Tube” Adult Cardiac How-To Video Session

Tuesday 1:00 p.m. – 5:00 p.m.
Room 30ABCD

How-To Video Session: Technical Tips to Avoid Pitfalls and Simplify Congenital and Pediatric Cardiac Surgery Procedures

Tuesday 1:00 p.m. – 5:00 p.m.
Room 32

How-To Video Session: General Thoracic

Tuesday 1:00 p.m. – 5:00 p.m.
Room 33
Mark Your Calendars!

STS Future Courses & Meetings

**Workshop on Robotic Cardiac Surgery**
March 29-30, 2019
Atlanta, Georgia

**TEVAR Symposium**
April 4-5, 2019
Chicago, Illinois

**Workshop on Robotic Thoracic Surgery**
May 16-18, 2019
Atlanta, Georgia

**Advances in Quality & Outcomes: A Data Managers Meeting**
October 23-25, 2019
New Orleans, Louisiana

**Tech-Con 2020**
January 25, 2020
New Orleans, Louisiana

**56th Annual Meeting**
January 26-28, 2020
New Orleans, Louisiana

**STS Co-Sponsored Courses**

**2019 Multidisciplinary Thoracic Cancers Symposium**
March 14-16, 2019
San Diego, California

**First Intercontinental Multi-Society Symposium on Lung Cancer**
May 18, 2019
Belo Horizonte, Brazil

Learn more at [sts.org/meetings](http://sts.org/meetings).
Digital Era Brings New Perspectives on Patient Safety

“We hear every day about the benefits of technology in medicine, but we don’t hear as much about the impact on patient safety.”

STEVEN D. HARRINGTON, MD, MBA

“Certainly in terms of physician angst, EHRs have not provided us with any real benefit. We should pay greater attention to how patient safety can be affected by the impact on providers,” Dr. Harrington said.

Cybersecurity and telehealth are other areas that need greater scrutiny. Both EHRs and electronic medical devices have been hacked, and patient safety is not often included in discussions about telehealth programs, which are becoming more widespread and use high-speed, high-capacity digital communication channels to connect patients and providers.

“We can already use remote diagnostics, remote reporting of lab work, remote medication dispensing, and remote patient monitoring,” Dr. Harrington said. “If you have the bandwidth, it doesn’t matter whether you are across the room or across the country. There is real potential to perform remote surgery using robotics, but only if we think about patient safety as part of the process.”

Digital Era Brings New Perspectives on Patient Safety

Healthcare is going digital. And while most attention is focused on the potential advantages of artificial intelligence, electronic health records (EHRs), telehealth, and other developments, digital innovation challenges the current notion of patient safety.

“We hear every day about the benefits of technology in medicine, but we don’t hear as much about the impact on patient safety,” said Steven D. Harrington, MD, MBA, of Henry Ford Macomb Hospital in Clinton Charter Township, MI. “Part of the reason is that it’s easier to focus on improvements brought by innovation, rather than safety concerns.”

Dr. Harrington will moderate today’s Patient Safety Symposium along with Garrett L. Walsh, MD, of The University of Texas MD Anderson Cancer Center in Houston.

Artificial intelligence is one of the most-hyped frontiers of medicine, Dr. Harrington said. Just as AI has produced cars that can drive themselves and phones that can recognize individual faces, AI has the potential to transform medical practice.

AI is nothing more than real-time predictive analytics, analyzing the available data and predicting future events based on past experience. But as experience with self-driving cars and facial recognition to unlock cell phones has shown, AI is not perfect. Predictive analytics cannot prevent self-driving vehicles from running into pedestrians, at least not so far. And facial recognition routines can be fooled.

“We need to consider the patient safety aspects of AI just as thoroughly as we consider the advantages to patient outcomes,” Dr. Harrington said. “There is always the possibility for unintended consequences.”

EHRs provide a prime example of unintended consequences. Although EHRs have provided important benefits in areas such as medication safety, they also have contributed to frustration, overwork, and provider burnout.

“The good guys are winning,” Dr. Naunheim said. Good women are winning, too, as more women become cardiothoracic surgeons. The shift reverses trends seen in workforce surveys in 2010 and 2015 showing the CT workforce in decline even as every other specialty, and the US population, increased.

One problem was the decline in surgical volume and jobs, which discouraged medical students from entering the field. But bigger problem, though, was gender. About 0.05% of male medical students were interested in thoracic surgery compared to only 0.01% of female medical students. As medical school enrollment moved from predominately male to female medical students. As medical school enrollment moved from predominately male to a rough balance, training slots went unfilled.

Again, STS leaders collaborated with others to promote and strengthen the specialty. This time it was on the development of TAVR, minimally invasive surgery, and robotics, all attractive, cutting-edge procedures for young surgeons. And the Society worked with Women in Thoracic Surgery to develop and present role models for young surgeons. And the Society worked with Women in Thoracic Surgery to develop and present role models for young surgeons.

In addition to electing Robert S.D. Higgins, MD, MSHA as the Society’s new President, STS members elected several new Officers and other Board members yesterday evening. Joseph A. DiMarco, MD, was elected First Vice President, and Sean C. Grondine, MD, MPH, FRCS(C) was elected Second Vice President. Joseph F. Sabik III, MD, was reelected Secretary, and Thomas E. MacGillivray, MD, PhD, was reelected Treasurer.

Leah M. Backhus, MD and Ara A. Vapourian, MD were elected to the Board of Directors at Large. Alan D. Sihoe, MD, MA, FRCS(C) was elected International Director, Marc Ruel, MD, MPH, was elected as Canadian Director, and Andrew P. Goldstone, MD, PhD was elected as Resident Director.

Also during the Business Meeting, STS members approved a Bylaws amendment that reduces the grace period from 1 year to 6 months for overdue financial obligations such as membership dues.
give us great educational opportunities. They had high expectations for us—academically and personally.”

After obtaining his bachelor’s degree from Dartmouth College, Dr. Higgins earned his medical degree from the Yale School of Medicine, followed by a master’s degree in health services administration from Virginia Commonwealth University. He completed a residency in general surgery and served as chief resident at the University Hospitals of Pittsburgh. He was a Winchester Scholar and fellow in cardiothoracic surgery at Yale, going on to Cambridge University, where he was a senior registrar in transplantation at the UK’s renowned Papworth Hospital. Dr. Higgins also served as a major in the US Army Reserve Medical Corps.

While in medical school, Dr. Higgins became fascinated with transplantation. The influences of nationally recognized cardiothoracic surgeons such as Drs. William Glenn, John A. Elefteriades, and John C. Baldwin also led Dr. Higgins to believe that “cardiac surgery was a very exciting and cool field.” As a result, he gravitated toward cardiac transplantation and cardiovascular disease as the primary focuses of his surgical training.

“I think it’s remarkable that transplantation is one of the few things in medicine where, because of the altruistic decision of a donor to give organs in the face of a devastating loss, not one, but eight to 10 other people will benefit,” said Dr. Higgins. “That is what motivates me—as a steward of those organs—to make sure that we do the best we possibly can.”

Following his training, Dr. Higgins became the Surgical Director of the thoracic organ transplantation program at Henry Ford Hospital in Detroit, MI. From there, he chaired cardiothoracic surgery departments at Virginia Commonwealth Universities and Rush Medical College in Chicago. In 2010, he joined The Ohio State University in Columbus, where he was Surgeon-in-Chief and Director of the Wexner Medical Center Comprehensive Transplant Center. Dr. Higgins became Surgeon-in-Chief of The Johns Hopkins Hospital and Director of the Department of Surgery for The Johns Hopkins School of Medicine in 2015.

An STS member since 1997, Dr. Higgins has served on many Society governance bodies, including as Treasurer on the Board of Directors and as a member of the Council on Health Policy and Relationships Operating Board, the Workforce on Media Relations and Communications. Most recently, he was the Society’s First Vice President. In addition, Dr. Higgins has held prominent leadership positions in other specialty organizations; he has been President of both the United Network for Organ Sharing and the Society of Black Academic Surgeons.

As STS President, Dr. Higgins said he will be committed to a modernization of the STS National Database and the development of an inclusive global agenda. “The Database is one of our most valuable assets, yet it is in a constant state of revision and its modernization has to be vibrant and responsive to the needs of the practitioners and the patients who we serve,” said Dr. Higgins. “Additionally, I think we have to be a more global organization. We have the responsibility as leaders to address the needs of diverse populations and to be more inclusive, not only in North America, but in Europe and around the world.”

Dr. Higgins also will focus on the future generations of surgeons, encouraging the participation and commitment of all Society members. “If we as surgical leaders, who are dedicated to our membership, can make things better for the specialty, it will have an exponential effect on our patients,” said Dr. Higgins. “So that’s the reason to exert effort and to participate in these activities—knowing that the impact and influence we have might make things better for a lot of people.”

With interests in health care economics and policy, racial disparities in post-transplant outcomes, access to care, and improving outcomes among heart failure and cardiac surgery patients, Dr. Higgins has authored more than 140 peer-reviewed journal articles, in addition to 13 book chapters. He also has mentored dozens of young surgeons during various stages of their careers.

Dr. Higgins is an avid sports fan. He and his wife, Molly, love watching hockey and football—the Chicago Bears and Pittsburgh Steelers, in particular. They have three children: John is a third-year medical student at The Ohio State University; Grant is a student at the University of Michigan; together as a family, they enjoy playing golf, traveling, and going to the theater.
Symposium Takes a Hard Look at Heart Transplantation Protocols

Heart transplantation is in flux. As donor pools grow smaller, the medical community is looking for nontraditional ways to procure hearts for life-saving transplantations.

“The reality is that there are significant unknowns in thoracic organ transplantation, and significant change is under way,” said Jonathan W. Haft, MD, of the University of Michigan in Ann Arbor, who will co-moderate today’s session on Advanced Therapies for End-Stage Cardiopulmonary Disease.

One of the session’s key presentations will outline the first planned clinical trial for implanting hearts from donors who suffered cardiac death, rather than the typical approach of procuring organs from patients who suffered brain death. Improving success in preventing patients from progressing to brain death is steadily reducing the pool of hearts and other organs available for transplantation.

Kidneys have long been donated following cardiac death, as have growing numbers of livers, lungs, and other organs—but rarely hearts, at least not in the United States.

“We don’t know if a heart that has progressed to cardiac death is permanently injured and would potentially function in the recipient,” Dr. Haft said. “In a variety of scenarios, these hearts can be reanimated and assessed for suitability for transplantation, and this has been performed with some frequency overseas. It is thought that procuring hearts after cardiac death could increase potential heart donors by 25%.”

There also are new financial models for organ procurement and preservation that could transform clinical practice. Organ procurement teams typically fly to donors, who are most often in community hospitals. After procurement, organs are transported to centers for transplantation.

One of the newest procurement models involves transporting donors to standalone procurement centers that include surgical centers.

This practice has significant financial and clinical potential, Dr. Haft said. Under the current system, organ procurement teams descend on community hospitals that do not often deal with organ procurement and are not familiar with best practices.

“If you can move procurement to surgical centers that do this day after day, it might be more effective and reduce costs,” he said.

Organ allocation is another key area of interest. The Organ Procurement and Transportation Network changed adult heart allocation policies in October 2018. The algorithms and process for distributing organs moved from three medical urgency statuses to six statuses plus geographic distribution. The new criteria are designed to transplant the most urgent patients the soonest and broaden geographic access to available organs.

“We’ll provide a snapshot of the new model’s impact over the few months that it has been in operation,” Dr. Haft said. “We will learn who the recipients are currently, how the characteristics of those recipients have changed, and how the new model has impacted distribution, as well as how far centers are now traveling to retrieve organs.”

The session also will review the current evidence on donor heart assessment. There are longstanding guidelines on how to assess donor hearts, but there also is significant variability in practice between transplantation centers. Not all common practices are supported by the current literature.

“Heart transplantation protocols is an area we have not looked at for some time at the STS Annual Meeting,” Dr. Haft said. “This is an important symposium that will potentially influence your practice.”
QUESTION OF THE DAY

What has been your favorite presentation so far?

KEITH S. NAUNHEIM, MD
St. Louis, MO

KARAN DEWAN, MEDICAL STUDENT
Cleveland, OH

ART MARTELLA, MD
Phoenixville, PA

V. SEENU REDDY, MD, MBA
Nashville, TN

“I liked the Chamberlain Papers. They are the crème de la crème. The best part is that we often have young residents presenting. These kids are so sharp, smart, and accomplished that you want them to be your own children—they are that good. They give you hope for the specialty. You realize that with these kids who are smarter and more capable than we are, the future is going to be good for cardiothoracic surgery.”

“My favorite was the Presidential Address. I was able to relate to a lot of the issues that Dr. Naunheim talked about in terms of why it’s difficult to get medical students interested in the field of thoracic or cardiac surgery. It was interesting to relate to changes we’re seeing and what to expect in the future.”

“The Presidential Address. Dr. Naunheim was really entertaining and motivating. He shared a personal side which was part of his message—that we need to be more personable with our colleagues and our patients.”

“Dr. Naunheim did a wonderful job in his Presidential Address with the key touch points of what makes STS what it is. He was able to show the importance of education in our specialty and of being inclusive, bringing women forward in the specialty. Dr. Naunheim showed the value that the Society brings to its members in terms of data and how that data can change practice.”

STAY CONNECTED TODAY’S TOP TWEETS #STS2019

Great presentation by @Hirji1987 as Maxwell-Chamberlain paper, congrats. Surgeons are essential to the #TAVR team #STS2019

@Aldenpmd

Congratulations to TSF Travel Scholarship recipient, Chizoba Efobi, who traveled all the way from Nigeria to attend the STS Annual Meeting in San Diego. @STS_CTSurgery #STS2019

@CTSurgeryFdn

“Diversity and inclusion in medicine is not just fixing a leaky pipeline but creating opportunities - multiple points of entry and reentry” ~ Dr. Joan Reede #STS2019 #TSSMN #DiversityandInclusion #ILookLikeASurgeon @STS_CTSurgery @OSUSurgery

@RuthAckah

Really impressed by this morning’s career development and mentorship session at #STS2019 Excellent advice for early career surgeons just out of training!

@DJPBurns
Indications: The Tri-Ad™ 2.0 Adams tricuspid band is indicated for the reconstruction or remodeling of pathological tricuspid valves. The band provides support for and restricts expansion of the tricuspid annulus.

Contraindications: Severe, generalized or localized bacterial endocarditis, heavily calcified valves, greatly dilated annulus (not reducible by standard techniques), severe annular fixation with severely reduced mobility, congenital deformations with lack of valvular tissue. Warning/Precautions/Adverse Events: Only physicians who have received proper training in valve repair should use this device. Adverse events can include: uncorrected or recurrent regurgitation, stenosis, band detachment, paravalvular leak with mitral regurgitation, low cardiac output, heart block, damage to coronary arteries, endocarditis, thrombus, thrombosis, embolization, anticoagulant-related hemorrhage, band fracture, leaflet perforation, and bleeding diathesis.

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