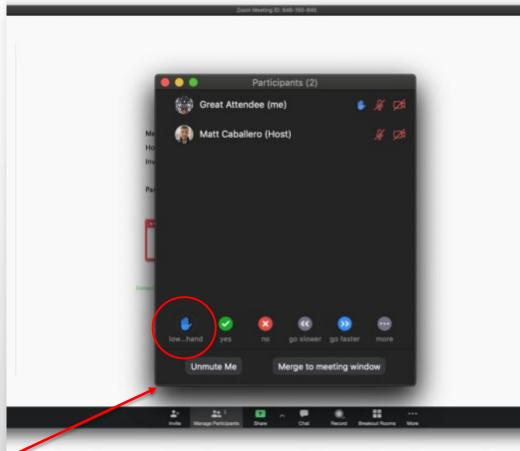
Virginia Cardiac Services Quality Initiative

Winter Quarterly Meeting December 5, 2024



To ensure a smooth meeting...

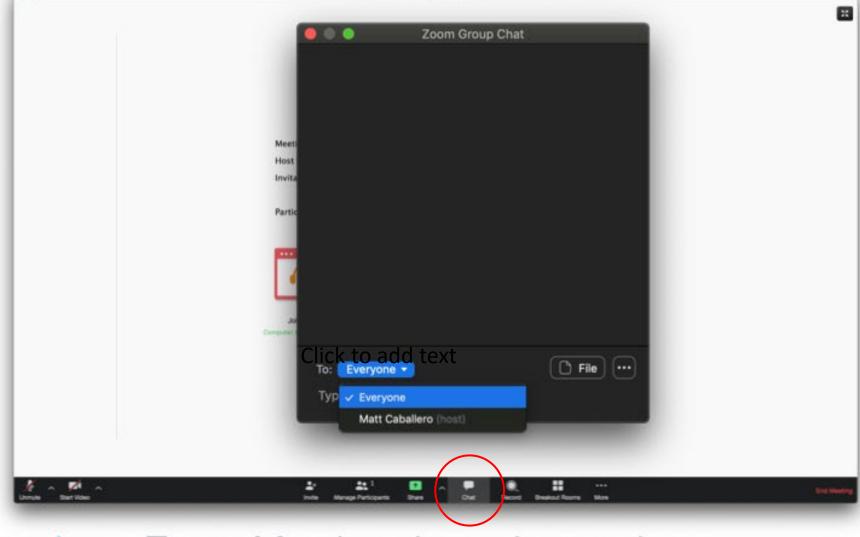
- Connect your Audio and Video
 - > See registration email for Zoom link and dial in number
 - If this is your first time using Zoom, it will automatically download the required software
 - > Call/text Sherri (216) 513-3141 if you need assistance
- Please mute your lines (phone or audio), until called upon
 - Interactive features available under 'participants' window
- Hold questions until end of presentation
 - Use "Raise Hand" feature for questions or comments
 - > The Chat Room can also be used to ask questions



Zoom Meeting viewer interaction







Housekeeping - Zoom Meeting viewer interaction



Using the 'Chat' feature in Zoom



Enter name in chat for attendance.

Questions can also be entered in the chat at any time.

Questions will be answered during the Q&A segment of the meeting.



Virginia Cardiac Services Quality Initiative 2024

Course Director: Sherri White, MSc, SSGBC

VCSQI Joins VHAC and Fall Quarterly Meeting

Moderator(s): Eddie Fonner

Presenters: Mohammed Quader, MD and Alex

Wisniewski, MD

Date: December 5, 2024



Provided by the School of Medicine and School of Nursing

Accreditation



In support of improving patient care, UVA Health Continuing Education is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Credit Designations

The University of Virginia School of Medicine and School of Nursing designates this live activity for a maximum of **2** *AMA PRA Category 1 Credits.*TM Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The University of Virginia School of Medicine and School of Nursing awards **2 contact hour** for nurses who participate in this educational activity and complete the post activity evaluation.

The University of Virginia School of Medicine and School of Nursing awards 1 hour of participation (consistent with the designated number of AMA PRA Category 1 Credit(s)TM or ANCC contact hours) to a participant who successfully completes this educational activity. The University of Virginia School of Medicine and School of Nursing maintains a record of participation for six (6) years.



The University of Virginia School of Medicine and School of Nursing has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This activity is designated for 2 AAPA Category 1 CME credits. PAs should only claim credit commensurate with the extent of their participation.



nis activity was planned by and for the healthcare team, and learners will receive **2.0 Interprofessional Continuing Jucation (IPCE) credits for learning and change**.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to **2 MOC points** in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. It is the CME activity provider's responsibility to submit participant completion information to ACCME for granting ABIM MOC credit.

Continuing Education

Policy on Disclosures

It is the policy of UVACE that presenters and planners globally disclose conflicts of interest. UVACE has established policies that will identify and resolve conflicts of interest prior to this educational activity. Detailed disclosure will be made prior to presentation of the education.

NEW! How to Text to Claim Credit





First time texting:

If this is the first time you are texting for credit, you must first pair your mobile number to your account.

Step 1: Text your email address to 1-855-474-8287. The email address should be your UVA email or email you have used to receive your CE credits in the past. You will receive a text notification indicating your phone number has been updated.

Step 2: Once your account is paired to your mobile number and you have obtained the activity code (24406), send the session code via text to 1-855-474-8287.

Note: If you have never received CE credits awarded by UVACE, visit uva.cloud-cme.com and click the "Sign Up Now" button.

Questions? Email uvace@uvahealth.org

Claim Credit Via Text, or with a Computer





Text to Claim Credit:

Text this code to: 1-855-474-8287

<u> 24406</u>

Claim Credit at UVA.cloud-cme.com:

Log into your account, select My CE, then select Claim Credit. If you don't know your password, select "forgot password."

You may claim credit 15 minutes prior to, during, and up to a total of 10,000 minutes (~6.9 days) for the activity.

NOTE: If you have never received CE credits awarded by UVACE, visit uva.cloud-cme.com and click the "Sign Up Now" button.

Questions? Email uvace@uvahealth.org

Update your Profile

This ensures you receive full CE credit

In the Mobile App: Download the CloudCME app from the App Store, and enter organization code: UVA



a photo

Or on your Computer: Visit www.cmevillage.com

- 1. Sign In (If you've attended a UVA CE course before, you already have an account)
 - UVA Employees: Log-in with your UVA Computing ID
 - Non-Employees: Log-in with your Email and Password
 - Select "Forgot your Password" to create a password.
- 2. Update your profile: Select "My CE" then "My Profile" and complete the ENTIRE form to ensure you receive all credit you are eligible for.

First Time attending a UVA CE Course? Select "Create an Account."

Need Assistance?

Contact your series Director and Coordinator: Sherri White: Sherri@vcsqi.org

Or contact UVACE@uvahealth.org



Tonight's Agenda

Welcome and Highlights from the Board Efficiency Measures

Mohammed Quader, MD; Virginia Commonwealth University

Special Presentation

Creating a National Presence: Impact of the VCSQI on Advancing Literature in Cardiac Surgery.

Alex Wisniewski, MD, University of Virginia

Bridging the Gap: Patient Perspectives on Cardiac Care and Quality

Improvement

Patient Panel Discussion

Special Guests:

John Harrity, Don Pruett, and Elizabeth Rainey



Welcome and Highlights from the Board

Mohammed Quader, MD
Virginia Commonwealth University
VCSQI Chairman

VCSQI Strategic Plan

Mission

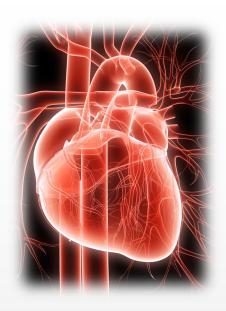
Transform Cardiovascular Care to Improve Patient Experience and Value

Vision

Optimize Heart Care Outcomes Through National Collaboration, Innovation and Research

Core Values

- V alue-Based Best Practices
- C ollabration & Transparency
- S tewardship of Healthcare & Costs
- Q uality and Patient Centered
- nnovation; Data and Analytic-Driven





Board Updates: Winter 2024

- > Board members re-elected for new terms:
 - Angie Carneal, Cindi Cole, Shelley Cahalan, Mohammed Quader, Alan Speir, Robert Shor, Jeffrey Rich
- Drafting of VCSQI 2025 Goals:
 - > Measurement of Collaboration and Quality Improvement
 - > Identify and Target New Facilities for Growth
 - Funding Opportunities



Virginia Cardiac Services Quality Initiative

Adult Cardiac Surgery Database Efficiency Metrics - Q1 2024

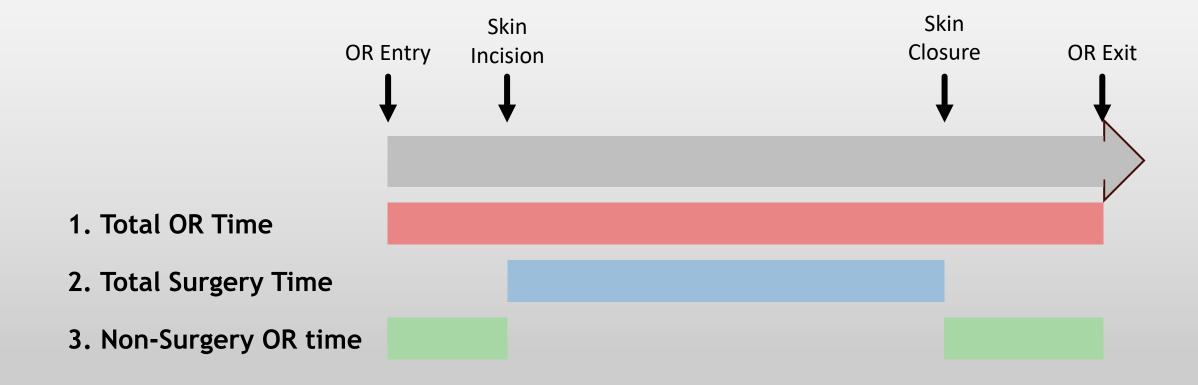


Measure Specifications

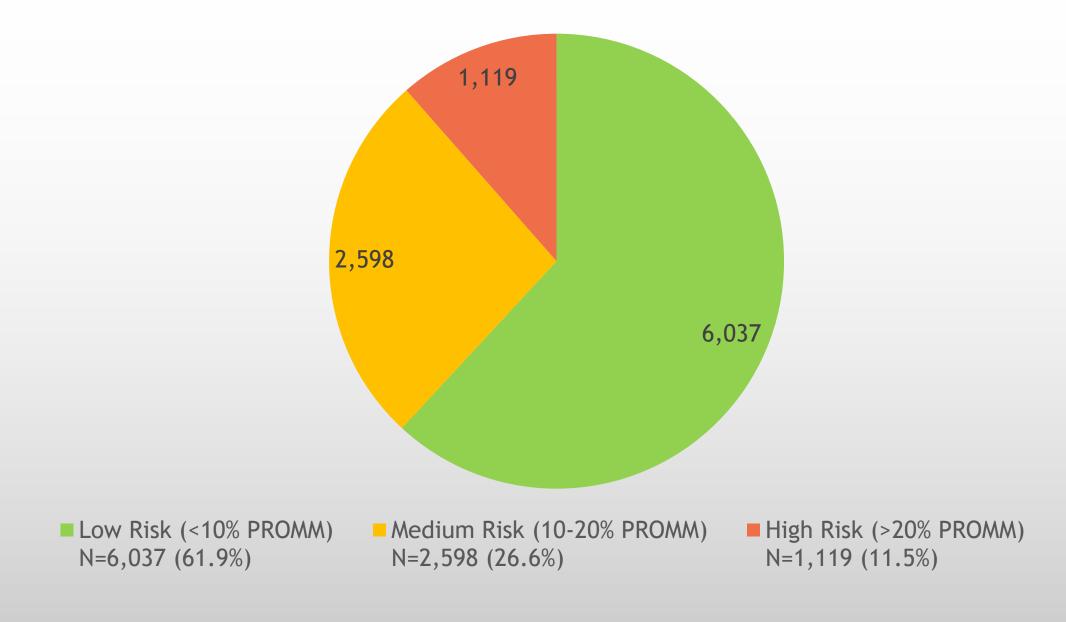
- Population: STS Isolated CAB cases from Q2 2021 Q1 2024
- OR Times are presented by hospital and shown for different Predicted

 Morbidity/Mortality risk groups

- Programs are grouped by volume:
 - ➤ Low: < 100 Iso. CAB / year
 - ➤ Medium: 100-200 Iso. CAB / year
 - ➤ High: > 200 Iso. CAB / year

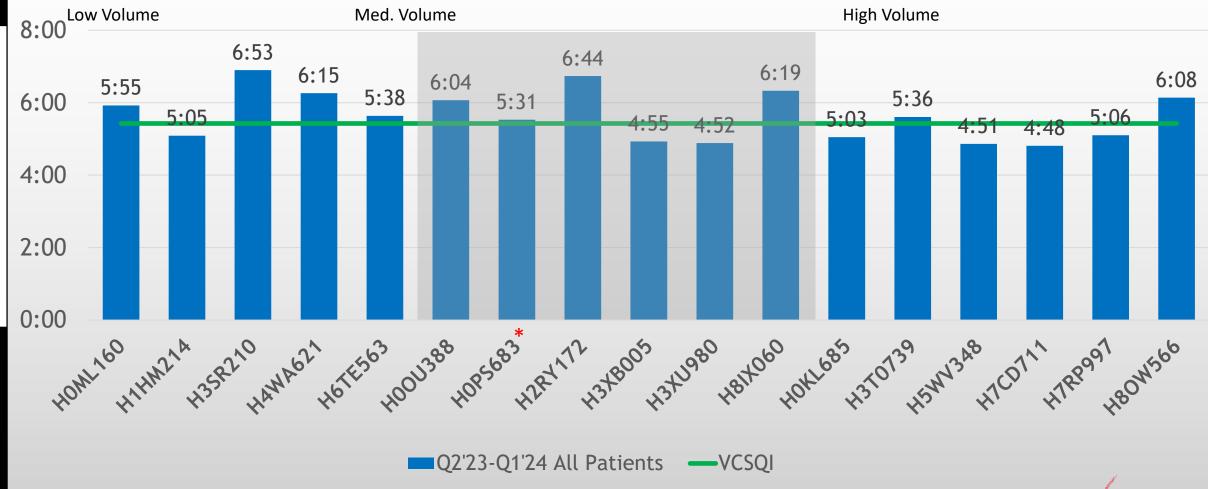


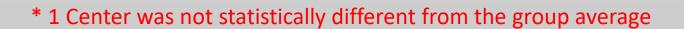
VCSQI Isolated CABG Volume vs. Predicted Morbidity or Mortality (PROMM):



Average Operating Room Time (Hours) by Hospital: Isolated CAB, Q2 2021—Q1 2024 Population: ALL PATIENTS (N=9,754)

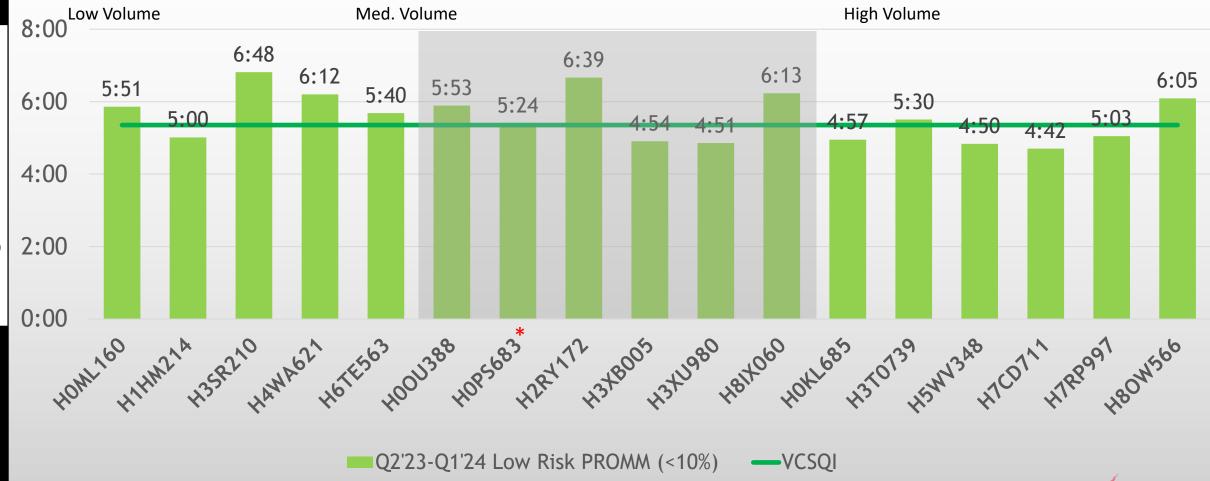
VCSQI Total: 5:25





Average Operating Room Time (Hours) by Hospital: Isolated CAB, Q2 2021—Q1 2024 Population: Low Risk PROMM (N=6,037)

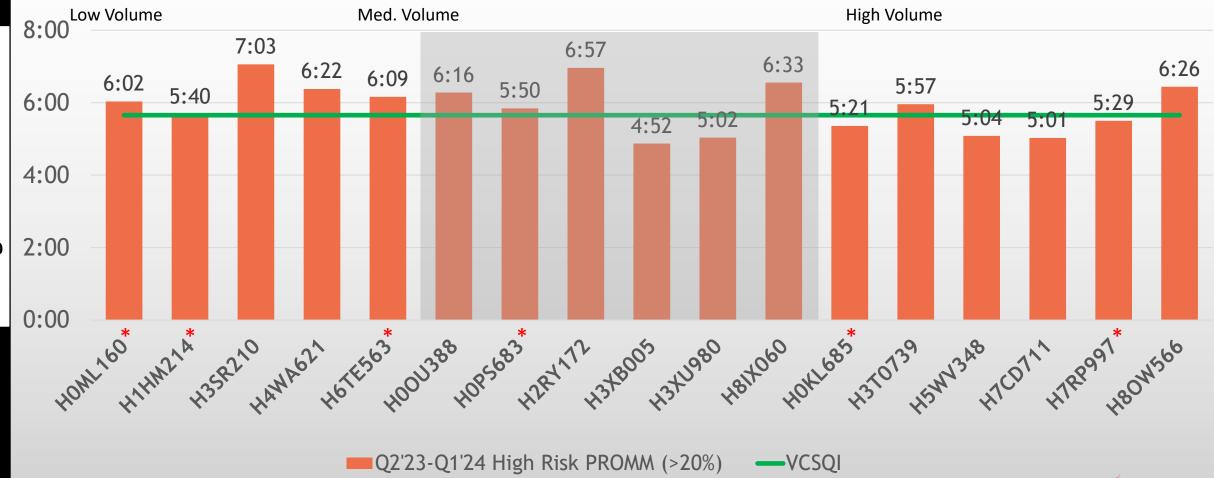
VCSQI Total: 5:21





Average Operating Room Time (Hours) by Hospital: Isolated CAB, Q2 2021—Q1 2024 Population: High Risk PROMM (N=1,119)

VCSQI Total: 5:39

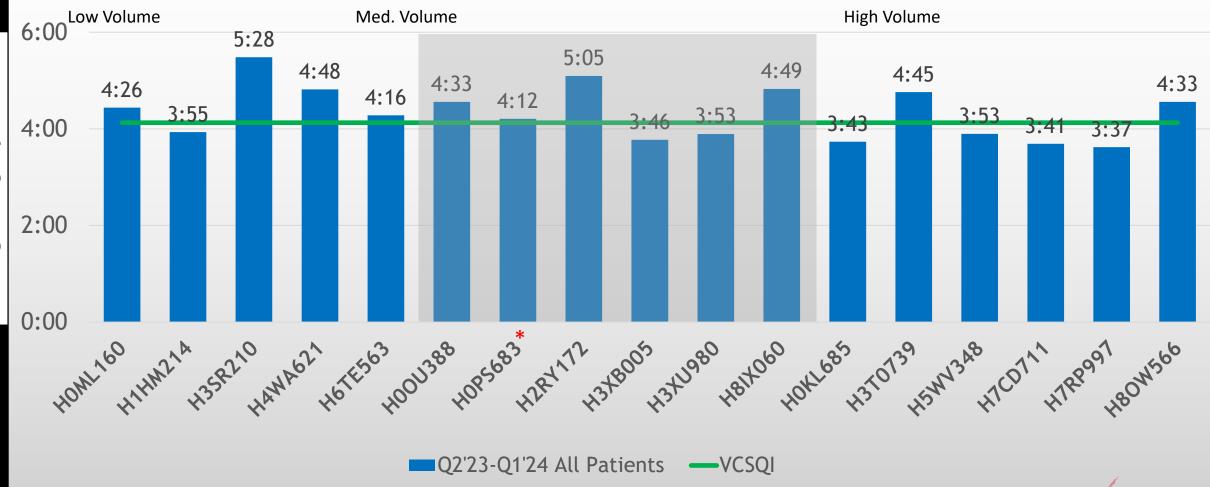






Average Surgery Time (Hours) by Hospital: Isolated CAB, Q2 2021—Q1 2024 Population: ALL PATIENTS (N=9,754)

VCSQI Total: 4:07

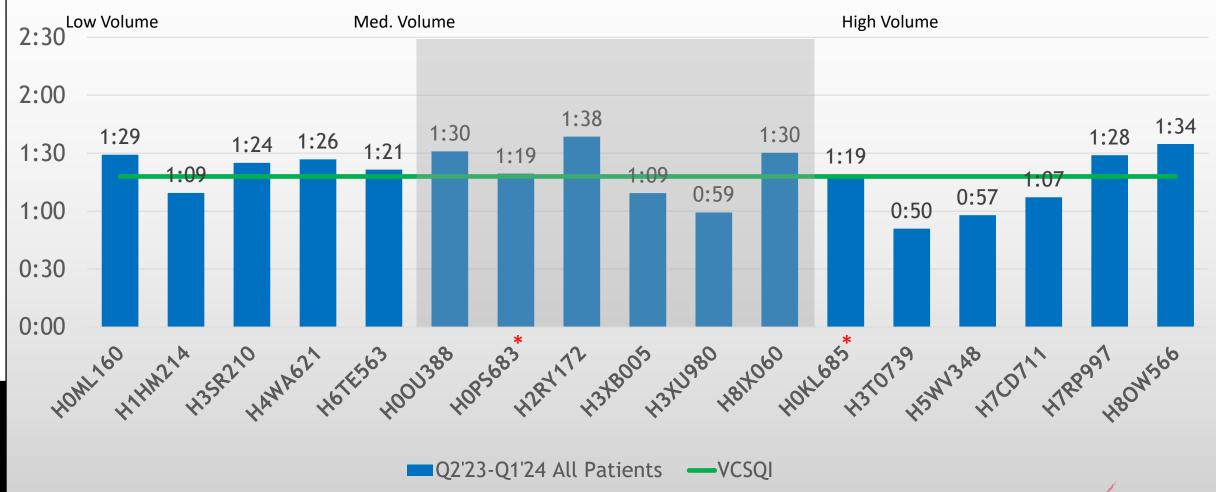






Average Non-Surgery OR Time (Hours) by Hospital: Isolated CAB, Q2 2021—Q1 2024 Population: ALL PATIENTS (N=9,754)

VCSQI Total: 1:17







Farewell as Chair of VCSQI: Reflections and Gratitude

Mohammed Quader, MD Virginia Commonwealth University VCSQI Chairman



The Unmeasured Metric: Patient and Family Perception

- Beyond measurable metrics lies patient and family perception
- Capturing this is challenging yet profoundly impactful
- Two stories illustrate the importance of trust and compassion



Creating a National Presence: Impact of the VCSQI on Advancing Literature in Cardiac Surgery

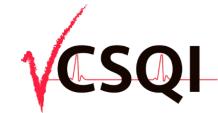
Alex Wisniewski, MD, MSc; Matthew Weber MD, MS; Steve Young, MD





I have no conflicts of interest or disclosures to report





Real World Impact

Regional Collaboration as a Model for Fostering Accountability and Transforming Health Care

Alan M. Speir, MD · Jeffrey B. Rich, MD · Ivan Crosby, MD · Edwin Fonner, Jr, DrPH △ ☑ · Virginia Cardiac Surgery Quality Initiative

Affiliations & Notes ✓ Article Info ✓

Comparative Study > Ann Thorac Surg. 2018 Aug;106(2):454-459.

doi: 10.1016/j.athoracsur.2018.02.055. Epub 2018 Mar 27.

Impact of Regional Collaboration on Quality Improvement and Associated Cost Savings in Coronary Artery Bypass Grafting

Jeffrey B Rich ¹, Clifford E Fonner ², Mohammed A Quader ³, Gorav Ailawadi ⁴, Alan M Speir ⁵

Affiliations + expand

PMID: 29596822 DOI: 10.1016/j.athoracsur.2018.02.055

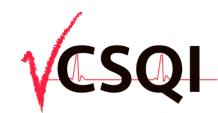




Trainee Impact

- While most studies look at a single centers case series, we have the unique opportunity to analyze data from multiple hospitals
 - Different hospital demographics and practice models increasing study external validity
 - Superior sample size
 - Uncommon procedures
- Efficiency in analyzing data





Trainee Impact

Involvement in large database research

 Opportunities to attend/present at national meetings

Collaboration with outside surgeons and institutions









Project Publications from the Last 2 Years





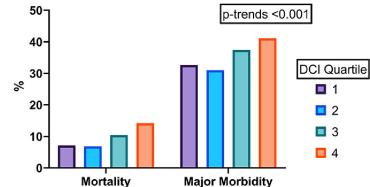
The Effect of Socioeconomic Distress on Risk-Adjusted Mortality After Valve Surgery for Infective Endocarditis

Raymond J. Strobel, MD, MSc, Eric J. Charles, MD, PhD, J. Hunter Mehaffey, MD, MSc, Robert B. Hawkins, MD, MSc, Mohammed A. Quader, MD, Jeffrey B. Rich, MD, Alan M. Speir, MD, and Gorav Ailawadi, MD, MBA

- Premise: Hierarchical logistic regression was used to model the association between DCI and mortality among endocarditis patients
- Major Finding: High socioeconomic distress was associated with higher rates of major morbidity, operative mortality, increased length of stay, and higher total cost. After risk- adjustment, DCI was independently predictive of higher operative mortality for patients with endocarditis.
- Oral presentation at the 2019 AATS Mitral Enclave
- Published in the Seminars in Thoracic and Cardiovascular Surgery in Autumn 2023

PMID: 35588950

Operative Mortality and Major Morbidity by DCI Quartile





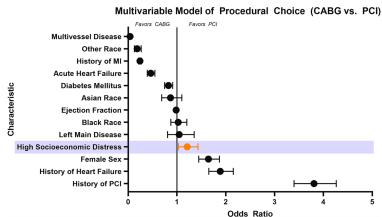


Socioeconomic Distress Associated With Increased Use of Percutaneous Coronary Intervention Over Coronary Artery Bypass Grafting

Raymond J. Strobel, MD, MSc, J. Hunter Mehaffey, MD, MSc, Robert B. Hawkins, MD, MSc, Andrew M. Young, MD, Erik J. Scott, MD, MS, Mohammed Quader, MD, Gregory J. Dehmer, MD, Jeffrey B. Rich, MD, Gorav Ailawadi, MD, Irving L. Kron, MD, Michael Ragosta, MD, Leora T. Yarboro, MD, and Nicholas R. Teman, MD

- Premise: Multivariable logistic regression was used to model the association between DCI and procedure type (CABG versus PCI)
- Major Finding: High socioeconomic distress is associated with greater risk-adjusted odds of receiving PCI, relative to CABG, as well as higher postprocedural mortality.
- Poster at the Fifty-eighth Annual Meeting of The Society of Thoracic Surgeons
- Published in the Annals of Thoracic Surgery in 2023

PMID: 35868555





Changes in Controllable Coronary Artery Bypass Grafting Practice for White and Black Americans

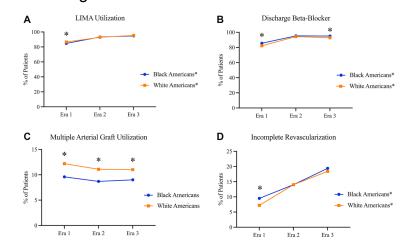
Evan P. Rotar, MD, MS, Erik J. Scott, MD, MS, Robert B. Hawkins, MS, MSc, J. Hunter Mehaffey, MD, MSc, Raymond J. Strobel, MD, MSc, Eric J. Charles, MD, PhD, Mohammed A. Quader, MD, Mark Joseph, MD, Nicholas R. Teman, MD, Leora T. Yarboro, MD, and Gorav Ailawadi, MD, MBA,

- Premise: White and black CABG patients were propensity score matched and characteristics of their procedures were examined
- Major Finding: Black Americans undergo less frequent multi-arterial grafting and greater discharge b-blocker prescription.

- Oral Presentation at the Fifty-seventh Meeting of The Society of Thoracic Surgeons
- Published in the *Annals of Thoracic Surgery* in 2023

PMID: 35093386







Cardiac Surgery Outcomes During the COVID-19 Pandemic Worsened Across All Socioeconomic Statuses

Emily F. Kaplan, BA, Raymond J. Strobel, MD, MSc, Andrew M. Young, MD, Alex M. Wisniewski, MD, Raza M. Ahmad, MD, J. Hunter Mehaffey, MD, MSc, Robert B. Hawkins, MD, MSc, Leora T. Yarboro, MD, Mohammad Quader, MD, and Nicholas R. Teman, MD

- Premise: Hierarchical logistic regression was used to model the relationship between the pandemic, surgical outcomes, and DCI.
- Major Finding: Across all socioeconomic statuses, the pandemic is associated with higher cost and greater risk- adjusted mortality,
- Published in the Annals of Thoracic Surgery in 2023

PMID: 36696937





Cardiac Surgery Outcomes During the COVID-19 Pandemic Worsened Across All Socioeconomic Statuses

- Plenary talk at 59th Annual STS Meeting
- J. Maxwell Chamberlain Memorial Paper for Perioperative and Critical Care at the Fifty-ninth Annual Meeting of The Society of Thoracic Surgeons







Temporal Cluster Analysis of Deep Sternal Wound Infection in a Regional Quality Collaborative

Andrew D. Hawkins MD, Erik J. Scott MD, MS, Jeison De Guzman BS, Sarah J. Ratcliffe PhD, J. Hunter Mehaffey MD, MSc, Robert B. Hawkins MD, MSc, Raymond J. Strobel MD, MSc, Alan Speir MD, Mark Joseph MD, Leora T. Yarboro MD, Nicholas R. Teman MD

 Premise: Cardiac surgery patients who received a sternotomy had their rates of DSWI compared using cluster analysis using different times

- Major Finding: Deep sternal wound infections are a rare event within our region. Unlike other surgical site infection, there does not

appear to be a seasonal pattern associated with Deep sternal wound infections.

Published in the *Journal of Surgical Research* in May 2023

PMID: 37352738

Month	Incidence of DSWI
January	0.29
February	0.40
March	0.35
April	0.32
May	0.37
June	0 36
July	0.31
August	0.34
September	0.44
October	0.31
November	0.38
December	0.32





Operating Room Versus Intensive Care Unit Extubation Within 6 Hours After On-Pump Cardiac Surgery: Early Results and Hospital Costs

Andrew D. Hawkins, MD, Raymond J. Strobel, MD, MSc, J. Hunter Mehaffey, MD, MSc, Robert B. Hawkins, MD, MSc, Evan P. Rotar, MD, MS,* Andrew M. Young, MD, Leora T. Yarboro, MD,* Kenan Yount, MD, MBA,* Gorav Ailawadi, MD, MBA, Mark Joseph, MD,‡ Mohammed Quader, MD, and Nicholas R. Teman, MD

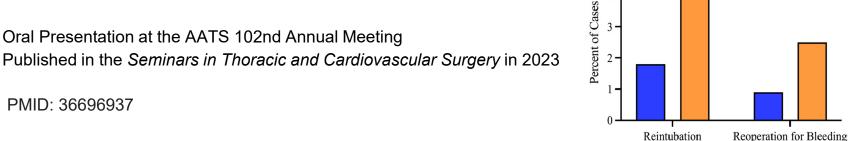
Premise: Non-emergent STS cases were propensity score matched based on OR vs. non-OR extubation status and outcomes were compared.

Major Finding: Between these groups (OR Extubation vs. Non-OR extubation), we did not find a difference in operative mortality. OR extubation was associated with lower cost and resource utilization. A significant increase in rate of reintubation and reoperation for bleeding was noted in the OR

extubation group.

- Oral Presentation at the AATS 102nd Annual Meeting

PMID: 36696937







Fast Track Extubation

Operating Room Extubation

Operating Room Versus Intensive Care Unit Extubation Within 6 Hours After On-Pump Cardiac Surgery: Early Results and Hospital Costs

Plenary at 102nd Annual AATS Meeting in Boston, MA

Presidential Abstract Award

Prompted National STS Study looking at this question









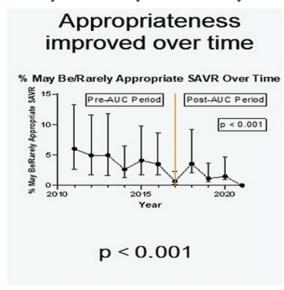
Appropriateness of Surgical Aortic Valve Replacement for Severe Aortic Stenosis Is Increasing

Raymond J. Strobel, MD, MS, Zeyad T. Sahli, MD, J. Hunter Mehaffey, MD, MS, Robert B. Hawkins, MD, MS, Andrew M. Young, MD · Mohammed Quader, MD, Gregory J. Dehmer, MD, Nicholas R. Teman, MD, Leora T. Yarboro, MD, Donald S. Likosky, PhD, Vinay Badhwar, MD · Irving L. Kron, MD, Gorav Ailawadi, MD

- Premise: Isolated AVR cases were examined for conformity to the appropriate use criteria (AUC).

- Major Finding: The majority of isolated SAVR for aortic stenosis was appropriate according to the 2017 AUC. Appropriateness improved after publication of AUC, and this improvement was associated with a significant reduction of major morbidity and mortality.
- ePoster at the Fifty-eighth Annual Meeting of The Society of Thoracic Surgeons
- Published in the Annals of Thoracic Surgery in Februrary 2024







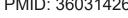
Socioeconomic distress is associated with failure to rescue in cardiac surgery

Raymond J. Strobel MD, MSc, Emily F. Kaplan BA, Andrew M. Young MD, Evan P. Rotar MD, MS, J. Hunter Mehaffey MD, MSc, Robert B. Hawkins MD, MSc Mark Joseph MD, Mohammed A. Quader MD Leora T. Yarboro MD and Nicholas R. Teman MD

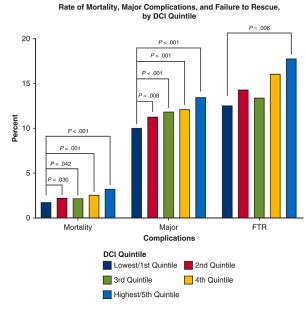
Premise: Hierarchical logistic regression was used to compare FTR rates of high DCI patients to others.

Major Finding: Increasing Distressed Communities Index, a measure of poor socioeconomic status, is associated with greater risk-adjusted likelihood of failure to rescue after cardiac surgery.

- Oral Presentation at 102nd Annual Meeting of the AATS
- Published in the JTCVS in March 2024









Mitral valve repair in a regional quality collaborative: Respect or resect?

Alex M Wisniewski, Grant N Sutherland, Raymond J Strobel, Andrew Young, Anthony V Norman, Mohammed Quader, Kenan W Yount, Nicholas R Teman

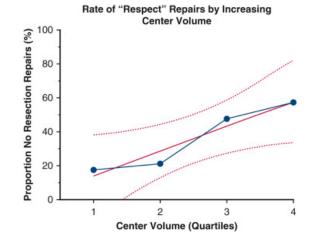
- Premise: The trends in mitral valve repair techniques across the collaborative were examined across the last decade.

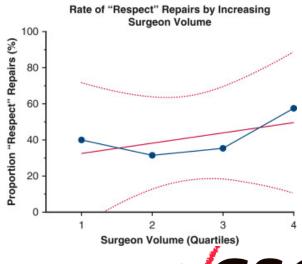
- Major Finding: Despite minor differences in operative times, statewide over the past decade there remains a diverse mix of both classic "resect" and newer "respect" strategies with comparable short-term outcomes and no major timewise trends. These data may suggest that both approaches are

equivocal.

Oral Presentation at the AATS Mitral Conclave 2023

Published in the JTCVS Techniques in April 2024







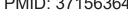
Extracorporeal Life Support Organization Center of Excellence recognition is associated with improved failure to rescue after cardiac arrest

Raymond J. Strobel, MD, MSc, Dustin T. Money, RRT-ACCS, Andrew M. Young, MD, Alex M. Wisniewski, MD, Anthony V. Norman, MD, Raza M. Ahmad, MD, Emily F. Kaplan, BA, Mark Joseph, MD, Mohammed Quader, MD, Michael Mazzeffi, MD, Leora T. Yarboro, MD, and and Nicholas R. Teman, MD

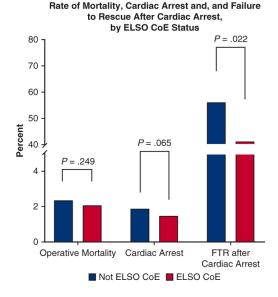
Premise: Hierarchical logistic regression was used to examine the relationship between ELSO CoE status and FTR rates.

Major Finding: ELSO center of excellence status is associated with improved failure to rescue following cardiac arrest for patients undergoing cardiac surgery.

- Oral Presentation at the 59th Annual Meeting of the Society of Thoracic Surgeons
- Published in the JTCVS in 2024







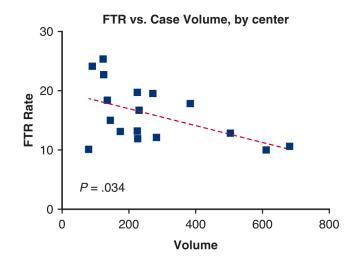


Center case volume is associated with Society of Thoracic Surgeons–defined failure to rescue in cardiac surgery

Raymond J. Strobel, MD, MSc, Andrew M. Young, MD, Evan P. Rotar, MD, MS, Emily F. Kaplan, BA, Robert B. Hawkins, MD, MSc, Anthony V. Norman, MD, Raza M. Ahmad, MD, Mark Joseph, MD, Mohammed Quader, MD, Jeffrey B. Rich, MD, Alan M. Speir, MD, Leora T. Yarboro, MD, J. Hunter Mehaffey, MD, MSc, and Nicholas R. Teman, MD

- Premise: Logistic regression was used to examine the relationship between case volume and FTR rates.

- Major Finding: Increasing center case volume is significantly associated with improved FTR rates.
- Oral Presentation at the 59th Annual Meeting of the Society of Thoracic Surgeons
- Published in the JTCVS in 2024







Prophylactic left atrial appendage ligation during coronary artery bypass grafting: A propensity score—matched analysis

Sean W. W. Noona, MD, Steven D. Young, MD, Matthew P. Weber, MD, Mohamad El Moheb, MD, Anthony V. Norman, MD, Alex M. Wisniewski, MD, Raymond J. Strobel, MD, MS, Mohammed Quader, MD, Michael A. Mazzeffi, MD, Leora T. Yarboro, MD, Jared P. Beller, MD, and Nicholas R. Teman, MD

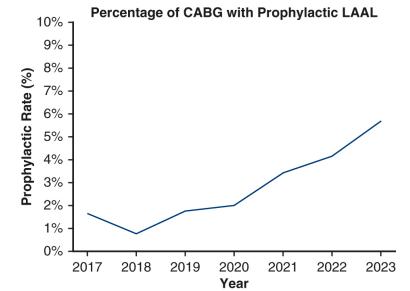
- Premise: CABG patients without a history of Afib who were prophylactically ligated were propensity score matched to those who weren't

 Major Finding: Despite higher rates of postoperative atrial fibrillation, discharge on anticoagulation, and hospitalization costs in patients undergoing prophylactic left atrial appendage ligation during coronary artery bypass grafting, there was no difference in short-term clinical end points including

stroke and operative mortality.

- Oral Presentation at the 104th Annual Meeting of the AATS
- Published in the JTCVS in 2024







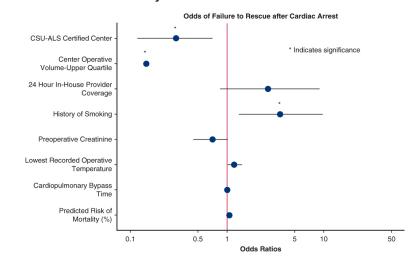
Cardiac Surgical Unit-Advanced Life Support-certified centers are associated with improved failure to rescue after cardiac arrest: A propensity score-matched analysis

Matthew P. Weber, MD, MS, Raymond J. Strobel, MD, MSc, Anthony V. Norman, MD, Abhinav Kareddy, BS, Andrew Young, MD, Steven Young, MD, Mohamad El Moheb, MD, Sean W. W. Noona, MD, Alexander M. Wisniewski, MD, Mohammed Quader, MD, Michael Mazzeffi, MD, Leora T. Yarboro, MD, and Nicholas R. Teman, MD

- Premise: Patients treated at CSU-ALS centers were propensity score matched with those who were not and a multivariable model was used to
 examine the relationship between CSU-ALS and FTR rates
- Major Finding: Centers with CSU-ALS certification are associated with a lower risk adjusted likelihood of FTR-CA.

- Oral Presentation at the 104th Annual Meeting of the AATS
- Published in the JTCVS in 2024







Cardiac Surgical Unit-Advanced Life Support-certified centers are associated with improved failure to rescue after cardiac arrest: A propensity score-matched analysis

AATS Presidential Abstract Award







Does Timing Matter? The Effect of Intensive Care Unit Arrival Timing on **Elective Cardiac Surgery**

Alex M. Wisniewski, MD, MSc, Sanjana Challa, BS, Raymond J. Strobel, MD, MSc, Anthony V. Norman, MD, MSc, Leora T. Yarboro, MD, Kenan Yount, MD, MBA, John Kern, MD, Michael Mazzeffi, MD, MSc, and Nicholas R. Teman, MD

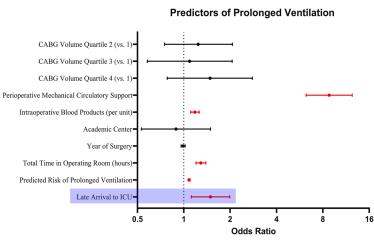
Premise: Hierarchical logistic regression was used to examine the relationship between daytime and nighttime ICU admission and complication rates

Major Finding: After adjustment, late ICU arrivals experienced higher rates of prolonged ventilation, although this did not translate to failure-torescue.

- ePoster at the Sixtieth Annual Meeting of The Society of Thoracic Surgeons
- Published in the Annals of Thoracic Surgery in 2024





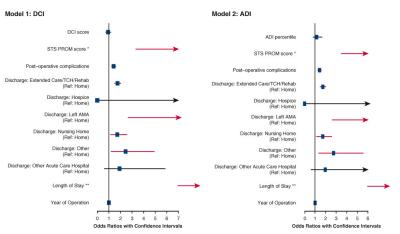


Assessing the impact of socioeconomic distress on hospital readmissions after cardiac surgery

Mohamad El Moheb, MD, Abhinav Kareddy, BSc, Steven Young, MD, Matthew Weber, MD, Sean Noona, MD, Alexander Wisniewski, MD, Anthony Norman, MD, Zeyad Sahli, MD, MBA, Raymond Strobel, MD, MSc, Andrew Young, MD, Jeffrey Rich, MD, Abdulla Damluji, MD, Mohammed Quader, MD, Leora Yarboro, MD, Nicholas Teman, MD, and Ourania Preventza, MD, MBA

- Premise: Logistic models were created examining the effect of two measurements of socioeconomic distress (DCI and ADI) on 30 day readmissions.
- Major Finding: In patients undergoing CABG, increasing socioeconomic distress does not predict higher 30-day readmission rate.
- Oral Presentation at the 104th Annual Meeting of the AATS
- Published in the JTCVS Open in 2024





^{*} OR for the normalized Predicted Mortality score (range 0 to 1) representing the change in odds of readmission when contrasting patients with the lowest and highest predicted risk of mortality



The Continuous of the Continuo

Unplanned postoperative catheterization during admission for coronary artery bypass grafting is neither cheap nor benign, but may rescue patient

Anthony V. Norman, MD, Andrew M. Young, MD, Raymond J. Strobel, MD, MSc, Mark Joseph, MD, Leora Yarboro, MD, Nicholas R. Teman, MD, Mohammed Quader, MD, and Irving L. Kron, MD

- Premise: Outcomes of patients who underwent PCI after CABG were examined.

- Major Finding: Unplanned catheterization after coronary artery bypass grafting is infrequent but associated with more complications and a higher

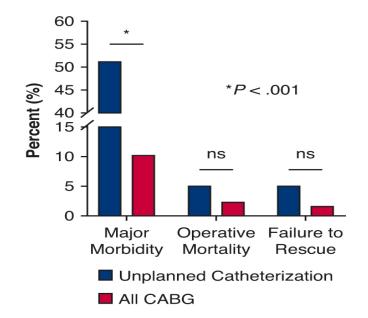
cost of care.

Oral Presentation at the 103rd Annual Meeting of the AATS

Published in the JTCVS in 2024









Multi-Institutional Model to Predict Intensive Care Unit Length of Stay after Cardiac Surgery

Alex M. Wisniewski, MD, Xin-Qun Wang, MS, Grant Sutherland, BS, Evan P. Rotar, MD, Raymond J. Strobel, MD, MSc, Andrew Young, MD, Anthony V. Norman, MD, Jared Beller, MD, Mohammed Quader, MD, Nicholas R. Teman, MD

- Premise: A logistic regression model was constructed to predict prolonged postoperative LOS after STS index operation.
- Major Finding: Prolonged ICU stay following cardiac surgery can be predicted with good predictive accuracy utilizing preoperative data and may aid in patient counseling and resource allocation.

- In Pre-Proof for *JTCVS* currently





- El Moheb, Mohamad, Abhinav Kareddy, Steven Young, Matthew Weber, Sean Noona, Alexander Wisniewski, Anthony Norman, et al. 2024. "Assessing the Impact of Socioeconomic Distress on Hospital Readmissions after Cardiac Surgery." JTCVS Open 21 (October): 211–23.
- Hawkins, Andrew D., Erik J. Scott, Jeison De Guzman, Sarah J. Ratcliffe, J. Hunter Mehaffey, Robert B. Hawkins, Raymond J. Strobel, et al. 2023. "Temporal Cluster Analysis of Deep Sternal Wound Infection in a Regional Quality Collaborative." The Journal of Surgical Research 291 (November): 67–72.
- Hawkins, Andrew D., Raymond J. Strobel, J. Hunter Mehaffey, Robert B. Hawkins, Evan P. Rotar, Andrew M. Young, Leora T. Yarboro, et al. 2024. "Operating Room versus Intensive Care Unit Extubation within 6 Hours after On-Pump Cardiac Surgery: Early Results and Hospital Costs." Seminars in Thoracic and Cardiovascular Surgery 36 (2): 195–208.
- Kaplan, Emily F., Raymond J. Strobel, Andrew M. Young, Alex M. Wisniewski, Raza M. Ahmad, J. Hunter Mehaffey, Robert B. Hawkins, Leora T. Yarboro, Mohammad Quader, and Nicholas R. Teman. 2023. "Cardiac Surgery Outcomes during the COVID-19 Pandemic Worsened across All Socioeconomic Statuses." The Annals of Thoracic Surgery 115 (6): 1511–18.
- Noona, Sean W. W., Steven D. Young, Matthew P. Weber, Mohamad El Moheb, Anthony V. Norman, Alex M. Wisniewski, Raymond J. Strobel, et al. 2024.
 "Prophylactic Left Atrial Appendage Ligation during Coronary Artery Bypass Grafting: A Propensity Score-Matched Analysis." The Journal of Thoracic and Cardiovascular Surgery, August. https://doi.org/10.1016/j.jtcvs.2024.08.004.
- Norman, Anthony V., Andrew M. Young, Raymond J. Strobel, Mark Joseph, Leora Yarboro, Nicholas R. Teman, Mohammed Quader, and Irving L. Kron. 2024.
 "Unplanned Postoperative Catheterization during Admission for Coronary Artery Bypass Grafting Is Neither Cheap nor Benign, but May Rescue Patients." The Journal of Thoracic and Cardiovascular Surgery 168 (4): 1094-1106.e1.
- Rotar, Evan P., Erik J. Scott, Robert B. Hawkins, J. Hunter Mehaffey, Raymond J. Strobel, Eric J. Charles, Mohammed A. Quader, et al. 2023. "Changes in Controllable Coronary Artery Bypass Grafting Practice for White and Black Americans." The Annals of Thoracic Surgery 115 (4): 922–28.

- Strobel, Raymond J., Eric J. Charles, J. Hunter Mehaffey, Robert B. Hawkins, Mohammed A. Quader, Jeffrey B. Rich, Alan M. Speir, Gorav Ailawadi, and Investigators for the Virginia Cardiac Services Quality Initiative. 2023. "Effect of Socioeconomic Distress on Risk-Adjusted Mortality after Valve Surgery for Infective Endocarditis." Seminars in Thoracic and Cardiovascular Surgery 35 (3): 497–507.
- Strobel, Raymond J., Emily F. Kaplan, Andrew M. Young, Evan P. Rotar, J. Hunter Mehaffey, Robert B. Hawkins, Mark Joseph, et al. 2024. "Socioeconomic Distress Is Associated with Failure to Rescue in Cardiac Surgery." The Journal of Thoracic and Cardiovascular Surgery 167 (3): 1100-1114.e1.
- Strobel, Raymond J., J. Hunter Mehaffey, Robert B. Hawkins, Andrew M. Young, Erik J. Scott, Mohammed Quader, Gregory J. Dehmer, et al. 2023.
 "Socioeconomic Distress Associated with Increased Use of Percutaneous Coronary Intervention over Coronary Artery Bypass Grafting." The Annals of Thoracic Surgery 115 (4): 914–21.
- 11. Strobel, Raymond J., Dustin T. Money, Andrew M. Young, Alex M. Wisniewski, Anthony V. Norman, Raza M. Ahmad, Emily F. Kaplan, et al. 2024. "Extracorporeal Life Support Organization Center of Excellence Recognition Is Associated with Improved Failure to Rescue after Cardiac Arrest." The Journal of Thoracic and Cardiovascular Surgery 167 (5): 1866-1877.e1.
- Strobel, Raymond J., Zeyad T. Sahli, J. Hunter Mehaffey, Robert B. Hawkins, Andrew M. Young, Mohammed Quader, Gregory J. Dehmer, et al. 2024.
 "Appropriateness of Surgical Aortic Valve Replacement for Severe Aortic Stenosis Is Increasing." The Annals of Thoracic Surgery 117 (2): 361–68.
- 13. Strobel, Raymond J., Andrew M. Young, Evan P. Rotar, Emily F. Kaplan, Robert B. Hawkins, Anthony V. Norman, Raza M. Ahmad, et al. 2024. "Center Case Volume Is Associated with Society of Thoracic Surgeons-Defined Failure to Rescue in Cardiac Surgery." The Journal of Thoracic and Cardiovascular Surgery 168 (1): 165-174.e2.
- 14. Weber, Matthew P., Raymond J. Strobel, Anthony V. Norman, Abhinav Kareddy, Andrew Young, Steven Young, Mohamad El Moheb, et al. 2024. "Cardiac Surgical Unit-Advanced Life Support-Certified Centers Are Associated with Improved Failure to Rescue after Cardiac Arrest: A Propensity Score-Matched Analysis."

- The Journal of Thoracic and Cardiovascular Surgery, August. https://doi.org/10.1016/j.jtcvs.2024.08.014.
- 15. Wisniewski, Alex M., Sanjana Challa, Raymond J. Strobel, Anthony V. Norman, Leora T. Yarboro, Kenan Yount, John Kern, Michael Mazzeffi, and Nicholas R. Teman. 2024. "Does Timing Matter? The Effect of Intensive Care Unit Arrival Timing on Elective Cardiac Surgery." *The Annals of Thoracic Surgery*, September. https://doi.org/10.1016/j.athoracsur.2024.08.004.
- 16. Wisniewski, Alex M., Grant N. Sutherland, Raymond J. Strobel, Andrew Young, Anthony V. Norman, Mohammed Quader, Kenan W. Yount, and Nicholas R. Teman. 2024. "Mitral Valve Repair in a Regional Quality Collaborative: Respect or Resect?" JTCVS Techniques 24 (April): 66–75.
- 17. Wisniewski, Alex M., Xin-Qun Wang, Grant Sutherland, Evan P. Rotar, Raymond J. Strobel, Andrew Young, Anthony V. Norman, Jared Beller, Mohammed Quader, and Nicholas R. Teman. 2024. "Multi-Institutional Model to Predict Intensive Care Unit Length of Stay after Cardiac Surgery." The Journal of Thoracic and Cardiovascular Surgery, November. https://doi.org/10.1016/j.jtcvs.2024.11.009.





Future Directions

- Continued incorporation of Cath PCI, cost, and socioeconomic distress measures into data
- Incorporation of the TVT registry to expand high quality studies on transcatheter interventions
 - Most data in the literature is single institutional
 - Will also allow for cross database analyses between the STS ACSD and TVT
- STS long-term outcome data rolling out in the near future





Special Thanks







Nick Teman, MD



Mark Joseph, MD



Alan Speir, MD



Abdulla Damluji, MD, PhD



Eddie Fonner



Mike Mazzeffi, MD, MS



Ramesh Singh, MD



Michael Kontos, MD



Jeffrey Rich, MD



Sherri White, MSPOD





Special Thanks



Steve Young, MD



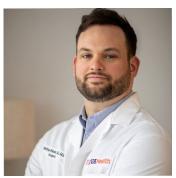
Ray Strobel, MD, MSc



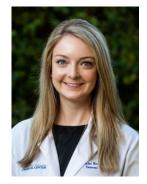
Anthony Norman, MD, MSc



Sean Noona, MD



Matt Weber, MD, MS



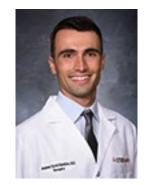
Skylar Rogers, MD



Andy Young, MD



Mohamad El Moheb, MD



Andrew Hawkins, MD





Thank You







SPECIAL SEGMENT

BRIDGING THE GAP:

Patient Perspectives on Cardiac Care and Quality Improvement







Don Pruett



Elizabeth Rainey

DECEMBER 5, 2024

5:30-7:30 PM VIA ZOOM

Register Now!

WWW.VCSQI.ORG

THIS SEGMENT WILL BE STREAMED LIVE ON FACEBOOK BEGINNING AT 6:30 PM.

WATCH VIA https://www.facebook.com/VCSQIVA/



This segment is endorsed by the: VCSQI Board of Directors & DEI 2.0 Workgroup

This segment will be streamed live on Facebook -

https://www.facebook.com/ VCSQIVA

We sincerely thank our partners at **Inova Health** for their pivotal role in identifying the inspiring patients joining us on tonight's panel.

Thank You!

Have a Safe and Joyous Holiday Season!

