# WELCOME

# SOUTHEASTERN VASCULAR STUDY GROUP

October 27, 2023 12:15 PM– 2:50 PM ET Jacksonville, Florida Hybrid



# In-Person Regional Registration QR Code

<u>REMOTE ATTENDEES</u> - DO NOT USE THE QR CODE







# **Remote Meeting Attendance Credit**

Before we get started, please sign in.



Click "Participants" in the box at the top or bottom of your screen.



If your full name is not listed, hover next to your name and look for "rename". Select & sign in.



Can't sign in? Email Angela Churilla at achurilla@svspso.org & include identifier you were signed in under (ex –LM7832) or phone number.

\*NOTE: Credit is <u>NOT</u> given to any attendee or speaker that does not have an <u>ACTIVE</u> PATHWAYS user account.



# **Appreciation and Thanks**



Thank you to everyone who helped make this event possible: Young Erben, MD - Regional Medical Director **Benjamin Jacobs - Regional Associate Medical Director** Mary Wanzek - Regional Co-Lead Data Manager Lisa Vanostrand – Regional Co-Lead Data Manager Kaity Sullivan – SVS PSO Analytics Team Angela Churilla – SVS PSO Education & Quality Program Manager Jennifer Correa – Marketing Manager Betsy Wymer - SVS PSO Director of Quality SVS PSO Staff

# Today's Agenda



12:15 pm	Welcome Regional Data Review –Young Erben, MD, SEVSG Medical Director Learning Objectives:					
	<ul> <li>Use the VQI regional reports to establish quality improvement goals for the vascular patients (outcomes) and for their center (process).</li> <li>Interpret and compare each centers' VQI results to regional and national benchmarked data.</li> <li>Learn, through group discussion the VQI regional results to improve the quality of vascular health care by monitoring measurable performance indicators, SVS PSO evidence-based research, and outcomes.</li> <li>Identify high performing regional vascular centers to discuss variations in care and clinical practice patterns to improve outcomes and prompt quality improvement recommendations for vascular care patients. Sharing of best practices/pathways of care.</li> </ul>					
1:15 pm	<ul> <li>Regional QI Proposal –Young Erben, MD, SEVSG Medical Director Learning Objectives:</li> <li>Use the VQI regional reports to establish quality improvement goals for the vascular patients (outcomes) and for their center (process).</li> <li>Interpret and compare each centers' VQI results to regional and national benchmarked data.</li> <li>Learn, through group discussion the VQI regional results to improve the quality of vascular health care by monitoring measurable performance indicators, SVS PSO evidence-based research, and outcomes.</li> <li>Identify high performing regional vascular centers to discuss variations in care and clinical practice patterns to improve outcomes and prompt quality improvement recommendations for vascular care patients. Sharing of best practices/pathways of care.</li> </ul>	CE Credit				

# **Today's Agenda - Continued**



1:15 pm	<ul> <li>National VQI Update – Betsy Wymer, DNP, RN, CV-BC, SVS PSO Director of Quality Learning Objectives:</li> <li>Use the VQI regional reports to establish quality improvement goals for the vascular patients (outcomes) and for their center (process).</li> <li>Identify high performing regional vascular centers to discuss variations in care and clinical practice patterns to improve outcomes and prompt quality improvement recommendations for vascular care patients. Sharing of best practices/pathways of care.</li> </ul>	CE Credit
2:15 pm	Council / Committee Updates	No CE Credit
2:30 pm	Open Discussion/Next Meeting/Meeting Evaluation	No CE Credit

# Agenda



#### SEVSG Regional Meeting Spring 2023 Friday, October 27, 2023, 11:30- 2:50pm ET; 11-12 lunch, begin 1215 With an optional hospital tour at 3:00PM

- 1215 Welcome and Introductions
- 1220 National VQI Updates

Dr. Betsy Wymer, SVS PSO Director of Quality

#### 1235 Regional Data Review

Dr. Young Erben, Regional Medical Director and Dr. Ben Jacobs, Regional Co-Medical Director

Keynote speaker, Dr. Gib Upchurch: "The Value of Guidelines in Vascular Surgery"

Second speaker: Dr. Fadi Shamoun (Vascular Medicine) "The value of ABI/TBI/TcPO2 in peripheral arterial disease"

After last EVAR slide: Research trainee Christopher Montaya MD from University of Miami: "Extraanatomic bypasses as perfusion alternatives in treating complex thoracoabdominal aortic disease."

After last CLI slide: Resident Stephanie Rakestraw MD from UAB: "End stage kidney disease and chronic limb-threatening ischemia: Which treatment is optimal?"

After the last slide: Research trainee Santh Lanka MBBS: "Institutionalized Median Arcuate Ligament Syndrome Protocol."

# Agenda



### 1400 Regional QI Proposal

Dr. Young Erben, Regional Medical Director

Dr. Ben Jacobs, Regional Co-Medical Director

#### 1410 **Committee Updates**

ACQ Update – Dr. Emily Spangler

VQC Update – Dr. Olamide Alabi

RAC Update – Dr. Susan Shafii

VQC RAC Update – Dr. Olamide Alabi

GC Update – Dr. Young Erben/Dr. Betsy Wymer

1440 **Open Discussion/Next Meeting/Meeting Evaluation** 

1450 Closing Remarks

**1500** Tour of the Hospital tarting in the Cannaday Building Lobby

### **Disclosures**



# No Disclosures



## Welcome and Introductions – 137 existing 3 new centers

AdventHealth Celebration AdventHealth Daytona Beach AdventHealth Ocala AdventHealth Orlando AdventHealth Tampa AdventHealth Waterman AdventHealth Zephyrhills Albany Vascular Specialist Center Ascension Sacred Heart Hospital Bay Augusta University Medical Center, Inc. Baptist Hospital of Miami **Bartow Regional Medical Center Bayfront Health Seven Rivers** Bethesda Hospital East Bethesda Hospital West Birmingham St. Vincent's East Hospital Blake Medical Center **Boca Raton Regional Hospital** Brookwood Baptist Medical Center Broward Health Medical Center Broward Health North Medical Center **Cape Canaveral Hospital** Cape Coral Hospital **Capital Regional Medical Center** Cardiothoracic and Vascular Surgical Associates **Cleveland Clinic Florida - Weston Hospital Cleveland Clinic Martin North Hospital Cleveland Clinic Tradition Hospital** Coastal Vascular & Interventional, PLLC **Coastal Vein and Vascular Specialists Cobb Hospital** Coffee Regional Medical Center Coral Gables Hospital Corporación Centro Cardiovascular de Puerto Rico y del Medical Center Navicent Healthcare Caribe **DCH Regional Medical Center** Decatur Morgan Hospital

Society for Vascular Surgery

**Delray Medical Center Doctors Hospital of Augusta Doctors Hospital of Sarasota** East Alabama Medical Center Emory St.Joseph's Hospital Emory University Hospital Fawcett Memorial Hospital Flagler Hospital Floyd Medical Center Grady Memorial Hospital (GA) **Gulf Coast Medical Center Gulf Coast Regional Medical Center** Halifax Hospital Medical Center HCA Florida Aventura Hospital HCA Florida Brandon Hospital HCA Florida Fort Walton-Destin Hospital HCA Florida Lawnwood Hospital HCA Florida Northside Hospital HCA Florida South Tampa Hospital Health Park Medical Center Holmes Regional Medical Center Holy Cross Hospital Jackson Memorial Hospital Kennestone Hospital Lakeland Regional Medical Center Lakewood Ranch Medical Center Largo Medical Center Lyerly Baptist Neurosurgery Manatee Memorial Hospital Marshall Medical North Marshall Medical South Mayo Clinic Florida Mease Countryside Hospital Medical Center of Trinity Memorial Health University Medical Center Memorial Hospital Jacksonville

**SVU** 

Memorial Hospital Pembroke Memorial Hospital West Memorial Regional Hospital Miami Vein Center Mobile Infirmary Morton Plant Hospital Morton Plant North Bay Hospital Mount Sinai Medical Center Naples Community Hospital North Alabama Medical North Florida Regional Medical Center North Fulton Hospital, Inc. North Okaloosa Medical Center Northeast Georgia Medical Center Gainesville Northside Hospital Atlanta Northside Hospital Cherokee Northside Hospital Forsyth Northside Hospital Gwinnett **Ocala Regional Medical Center** Orlando Health, Inc. Dr. P. Phillips Hospital Orlando Health, Inc. Health Central Hospital Orlando Health, Inc. Orlando Regional Medical Center Orlando Health, Inc. South Lake Hospital Orlando Health, Inc. South Seminole Hospital Palm Beach Gardens Medical Center Phoebe Putney Memorial Hospital **Piedmont Athens Regional Medical Center Piedmont Hospital Princeton Baptist Medical Center** Providence Hospital (AL) Redmond Regional Medical Center **Rockledge Regional Medical Center** Sacred Heart Emerald Coast Sacred Heart Pensacola Saint Joseph's Hospital Saint Luke's Memorial Hospital Sarasota Memorial Hospital

Sarasota Memorial Hospital - Venice Campus Shelby Baptist Medical Center ShorePoint Health Port Charlotte South Bay Hospital South Florida Baptist South Georgia Medical Center South Miami Hospital Southeast Georgia Health System, Inc. - Brunswick Campus Springhill Medical Center St. Anthony's Hospital-FL St. Dominic's Memorial Hospital and Medical Associates St. Joseph's Hospital North St. Joseph's Hospital South St. Joseph's Hospital-FL St. Vincent's Birmingham St. Vincent's Medical Center - Clay County St. Vincent's Medical Center- Riverside St. Vincent's Medical Center- Southside Surgical Specialists of Central Florida Tallahassee Memorial HealthCare, Inc Tampa General Hospital **Tenet Florida Physicians Services** The Vein and Vascular Institute of Tampa Bay **Tift Regional Medical Center** University Of Alabama Medical Center University of Florida, Gainesville University of Miami Hospital and Clinics Valley Vascular Consultants, P.C. Vascular Surgery Associates Winter Haven Hospital

In collaboration with NCI

# **VQI** National Update

Betsy Wymer, DNP, RN, CV-BC SVS PSO Director of Quality



### **VQI** Participation

Canadian Vascular Quality Initiative



SVS VQ

### **Regional Breakdown**

Canadian Vascular Quality Initiative | 7 Centers Carolinas Vascular Quality Group | 40 Centers Great Lakes Vascular Study Group | 63 Centers Michigan Vascular Study Group | 37 Centers Mid-America Vascular Study Group | 74 Centers Mid-Atlantic Vascular Study Group | 90 Centers MidSouth Vascular Study Group | 27 Centers Midwest Vascular Collaborative | 51 Centers Northern California Vascular Study Group | 27 Centers Pacific NW Vascular Study Group | 41 Centers Rocky Mountain Vascular Quality Initiative | 58 Centers Southeastern Vascular Study Group | 140 Centers Southern California VOICE | 42 Centers Southern Vascular Outcomes Network | 114 Centers Upper Midwest Vascular Network | 66 Centers Vascular Study Group of Greater New York | 47 Centers Vascular Study Group of New England | 51 Centers Virginias Vascular Study Group | 45 Centers Singapore | 1 Center TOTAL CENTERS | 1,022 Centers

(VOICE)

/S Society for Vascular Surgery

Puerto Rico



**SVU** 

### **Procedures Captured**



**SVU** 

O Society for Vascular Medicine VASA

TOTAL PROCEDURES CAPTURED	1.153.531
(as of 10/1/2023)	
Peripheral Vascular Intervention	399,362
Carotid Endarterectomy	202,995
Infra-Inguinal Bypass	84,711
Endovascular AAA Repair	84,460
Hemodialysis Access	79,600
Carotid Artery Stent	110,945
Varicose Vein	64,039
Supra-Inguinal Bypass	27,063
Thoracic and Complex EVAR	30,969
Lower Extremity Amputations	30,369
IVC Filter	18,770
Open AAA Repair	18,485
Vascular Medicine Consult	1,523
Venous Stent	240

### **VQI Total Procedure Volume**



Total Procedure Volume reflects net procedures added to the registry for the month

Society for

Vascular Surgery

SVS

American Venous Forum 7 FIVOS

### 2023 VQI@VAM Wrap Up

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- Recordings & slides available on the VQI@VAM Planner
  - Log into the Planner <a href="https://2023svsvam.eventscribe.net/">https://2023svsvam.eventscribe.net/</a>
  - Select Full Schedule
  - Select your preferred day
  - Select your session



# Have you checked out the new VQI Website?

If not, here's just a peek at what you're missing!



Registry specific pages – deeper dive into each of the SVS VQI's 14 registries



The ability to view the VQI.org website in your preferred language! Don't see your preferred language, reach out to see about getting it added to the site



New webinars & presentations added regularly – either on the main events page, or in Members Only

For more information about the VQI website, contact Jen Correa, SVS PSO Marketing Manager at jcorrea@svspso.org. "Participation in the Vascular Quality Initiative is best way to study our outcomes, and make sure provide the highest quality care possible to our pa with vascular disease."

Dr. Phillip Goodney – Dartmouth Health

#### IMPORTANCE OF REGIONAL GROUPS

Through regional quality group meetings, participants share and analyze collected data to initiate quality improvement projects to reduce complications, readmissions, and length of stay. Quality improvements projects can translate directly to hospital cost reduction. With continued expansion of the SVS VQI and regional quality groups, data will more rapidly accumulate and can be leveraged for benchmarking and quality improvement initiatives.

Benefits of regional quality group participation include:

- Anonymous, benchmarked reports for comparison
- Increasing power and ability to detect root causes of outcomes
- Facilitating & initiating quality improvement projects
- Access to blinded datasets for data analysis at regional and national level
- Improving long-term patient surveillance

#### FIND YOUR REGIONAL GROUP ightarrow





### QUALITY IMPROVEMENT – MEMBERS ONLY



### Access to information exclusively available to members of the SVS VQI

# **VQI Members Only**

- Find information that is not publicly shared on the VQI Website (ex: Quality Guide, Specific Registry Webinars, etc....
- Find links and other information for upcoming Regional Group meetings

- Remember, access to the Members Only area of the VQI Website requires a different login than your PATHWAYS user account
- For account access email Jen Correa at: jcorrea@svspso.org to receive your username and temporary password



### FDA Communications



### https://www.vqi.org/resources/fda-communication/

# **FDA COMMUNICATIONS**

### **NEWS/UPDATES FROM THE U.S. FOOD AND DRUG ADMINISTRATION**

September 12, 2022

FDA Advisory Panel Recommendations on Lifelong Surveillance and Long-Term Postmarket Data Collection for Patients with AAA Endovascular Aortic Repair – Letter to Health Care Providers

March 9, 2022

<u>Medtronic Recalls TurboHawk Plus Directional Atherectomy System Due to Risk of Tip</u> <u>Damage During Use</u>

# **Readmission Study University of Rochester**

- 30d Readmission rates
  - Review of readmission cost
  - Frequency of readmissions
  - Frequency of reoperations & cost
- Univ Rochester piloting 30D readmission project
- To join the pilot or for questions contact Stacey Esposito at:

Stacey\_Esposito@URMC.Rochester.edu



Benefits determined by the study include:

- More accurate capture of complications after discharge/use of LTFU form for complications prior to 9 mos.
- Track & trend unplanned readmissions
- Identify the reason for unplanned readmissions
- Evidence based data to identify at risk patient populations
- Benchmark against Region and All VQI





- Smoking Cessation launched as a new NQI June 2023 w/ variables added to all Arterial Registries – Early Q3 2023
- Help Text Enhancement Tool May 2023
- Interactive plots for the Biannual Center and Regional Level Reports
- Retirement of most COVID Variables
- Retirement of >500 Opioid variables
- Collection of Exercise Program variables in Lower Extremity Registries
- In Development:
  - o Open Aorta Registry
  - Infrainguinal/Suprainguinal Registry Follow-up reports
  - Continued efforts for harmonization across registries
  - $\circ~$  Enhanced reporting measure for biannual reports
  - EPIC integration into VQI. Looking for Center volunteers



# Cardiac Risk Index

SVS VQI	Home	Calculators •	About	FAQ
Suprainguinal Bypa Applicable to any primary, non-ero occlusive disease for indications ischemia Generate report Age Under 60 Graft Origin Axillary ASA Class 1, 2, or 3 History of Coronary Artery Disease None	ass (SUPR/ mergent suprain of claudication, r	A) guinal bypass for aneur est pain, tissue loss, or a	ysmal or acute	Risk of In-Hospital Postoperative Myocardial Infarction: 1.1 % yerrage Risk yerrage Risk yerrage Risk tor risk value falls within the 1st quartile (0-25th percentile) of risk. How to interpret figure: Black bar represents your risk verage Risk black vertical line represents median risk of patients undergoing SUPRA procedure yerrage Risk yerrage Risk
Results of Stress Test within Past Not Done Indication for Surgery  Claudication	2 Years 🕄		•	0%       2%       4%       6%       8%       10%       12%       14%         Background shaded by risk quartile:       Image: Construct of the state

https://www.vqi.org/risk-calculators/



## The VQI-CRI is also available in a mobilefriendly format

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#### Welcome to the VQI Cardiac Risk Index

#### Last updated: February 2023

This calculator estimates a patient's risk of in-hospital postoperative myocardial infarction for five primary vascular procedures based on the input of preoperative patient characteristics and planned procedure details.

#### Disclaimer:

The VQI Cardiac Risk Index (VQI-CRI) estimates the chance of an adverse outcome based on preoperative patient and procedure information entered into the calculator. These estimates are calculated using VQI data collected from a large number of patients who had a procedure similar to the one for which the patient may be a candidate.

It is important to note that VQI-CRI risk estimates only take certain information into account. There may be other factors that are not used in the estimate which may increase or decrease the risk of an adverse outcome. Estimates obtained are not a guarantee of results. An adverse outcome may occur even if the risk is low. Similarly, an adverse outcome may not occur even if the risk is high.

The information presented by the VQI-CRI is not meant to replace the advice of a physician or healthcare provider regarding diagnosis, treatment, or potential



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#### Suprainguinal Bypass (SUPRA)

Applicable to any primary, non-emergent suprainguinal bypass for aneurysmal or occlusive disease for indications of claudication, rest pain, tissue loss, or acute ischemia

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(i)

C

Age (i)	
Under 60	
Graft Origin	
Axillary	
ASA Class	

History of Coronary Artery Disease (i)

Results of Stress Test within Past 2 Years

svs-vqi.shinyapps.io

1, 2, or 3

None

Not Done

Results of Stress Test v	vithin Past 2 Years	(
Not Done		*
Indication for Surgery	(1)	
Claudication		٠

1.1 %

Your risk value falls within the 1st quartile (0-25th percentile) of risk.

#### L GENERATE REPORT

A 🖩 svs-vqi.shinyapps.io





# **Physician Snapshot Report Discussion**



## Introducing Physician Snapshot Reports for Carotid Treatment

- Individual Physician Reporting for individual physicians to compare key outcomes against all VQI cases
- Key features
  - Flexible access: Available on your smart phone or through Pathways reports on your desktop
  - Near real time data with nightly updates
  - CEA, TCAR and TF-CAS available on the same report
  - Flexible time interval views- default view is the last 365 days with options to adjust the date range
  - Secured- viewable only by you via your VQI PATHWAYS password





Compare Physician with VQI Average Annual Case Volume and Key Outcomes

> CEA vs TCAR vs TF-CAS, Asymptomatic vs Symptomatic Cases, Stroke, Death, MI

Tivos







How do I access my Carotid snapshot?

Two Options:

1. An email with your URL entitled **View my Carotid Snapshot** was sent to the email on file for you in PATHWAYS- simply click the link and enter your PATHWAYS password

 2. From a desktop computer- URL Access: <u>https://pathways.m2s.com</u>
 -From the reporting menu in the top right, click the option for the Physician Snapshot Report

Note: You will need your VQI PATHWAYS password to the view the report

- If you do not know your VQI PATHWAYS password, please see your VQI hospital manager
- You may also email PATHWAYS support for assistance at <u>PATHWAYSsupport@fivoshealth.com</u>



Tivos



## Physician Snapshot Report Feedback

Polling Questions:

- How many of you have viewed your report?
- If you have not viewed the report, why?
- Can you share your initial reaction or feedback if you have used it?

Note: In order to obtain future feedback, we may send a very brief email survey. Your participation is greatly appreciated!







# **General RAC Submission Guidelines**





Center Registry Subscription



Regional RAC approval <u>required</u> for all regional proposals

SVS Society for Vascular Surgery



# General RAC Submission Guidelines Cont.



Check email for approval status from Melissa Latus <u>mlatus@svspso.org</u>



Check email notification from FIVOS health that data set is available in 'Share A File'



Data in 'Share A File' will expire after 30 days of receipt



SVS Society for Vascular Surgery

# **2022 SEVSG Participation Award Winners**





Piedmont Hospital University of Florida, Gainesville Emory University Hospital Mayo Clinic Florida University Of Alabama Medical Center



Redmond Regional Medical Center Floyd Medical Center Northside Hospital Atlanta Northside Hospital Cherokee Sarasota Memorial Hospital Grady Memorial Hospital (GA) Emory St.Joseph's Hospital Florida Hospital Zephyrhills North Florida Regional Medical Center Providence Hospital (AL) Cape Canaveral Hospital



Tampa General Hospital Northside Hospital Forsyth Piedmont Athens Regional Medical Center Tift Regional Medical Center Memorial Hospital West AdventHealth Celebration Morton Plant Hospital AdventHealth Daytona Beach Lakeland Regional Medical Center Mount Sinai Medical Center Cleveland Clinic Martin North Hospital Mease Countryside Hospital Halifax Hospital Medical Center



## Quality Improvement Updates



# Betsy Wymer, DNP, RN, CV-BC Director of Quality, SVS PSO

Introduced at VQI@VAM 2023

- CAN-DO Program
  - <u>Choosing Against combustible Nicotine Despite Obstacles</u>
- Arterial registries only
- Reporting measures added Spring 2023
  - Preop Smoking Elective procedures
  - Smoking Cessation Elective, Urgent, Emergent procedures
- Currently have smoking variables
  - Minimal addition of variables
  - Go LIVE August 31, 2023
- Webinars
  - Monthly (register at <u>www.vqi.org</u>)
- Education <u>https://www.vqi.org/quality-improvement/national-qi-initiatives/</u>
  - Physician and Patient
  - Toolkits
  - Billable codes and sample dictation
  - Resources

Quality Improvement: National Quality Initiative - Smoking Cessation





### **Quality Improvement – Participation Points**



The following is a list of the four domains for the 2023 Participation Awards criteria:

- Domain 1 LTFU 40% weighted
- Domain 2 Regional Meeting Attendance 30% weighted
- Domain 3 QI Project 25% weighted
- Domain 4 Registry Subscriptions 5% weighted

### Quality Improvement – Participation Points QI Project Domain



#### Domain – Quality Improvement Project – 25% weighted

Scoring on 0 – 6-point scale to keep consistent with other measures. This gives centers options for getting **6 maximum QI points**.

- Initiation of a QI Project, evidenced by submitting a Project Charter to <u>QI@SVSPSO.ORG</u> or <u>bwymer@svspso.org</u> (2 points). **One charter per year.**
- Presenting a QI Project (presentation or poster) at a Regional VQI, \*Regional Society Meeting, or \*Hospital Board and/or C Suite meeting (2 points) When presenting at succinct regional meetings, project slides must reflect a change or update in status.
- Presenting a QI Project (presentation or poster) at the National VQI or \*Vascular Annual Meeting (2 points)
- \*Publish a VQI quality improvement article in a Peer Reviewed Journal (2 points)
- Centers with significant improvement or excellent performance rates on National QI
   Initiatives will receive one additional point (per initiative), for a maximum of 6 QI points

\* Please send attestation (proof) to <u>bwymer@svspso.org</u> on or before December 31, 2023.

### Quality Improvement – QI Project Domain Requirements



- Present VQI data to C-Suite (leadership, CNO, COO, Chief Vascular Surgeon, etc.)
- Contact Betsy at <u>bwymer@svspso.org</u>
- Provide the following
  - Agenda/Meeting Minutes (date, your name and presentation, attendees)
  - Copy of presentation (feel free to cover center data)
  - Maximum of 2 presentations per year slides must present a change or an update in status
- You will receive an email confirmation from Betsy which verifies participation points

### Fellows in Training (FIT) Program 2022-2023 Jack Cronenwett Scholarship Winners



### Quality

Dr. Christine Kariya FIT Mentor Dr. Danny Bertges University of Vermont Medical Center Dr. Hanna Dakour Aridi FIT Mentor Dr. Michael Murphy Indiana University Health – Methodist Research Dr. Ben Li FIT Mentor Dr. Graham Roche-Nagle Toronto General Hospital

Dr. Brianna Krafcik

FIT Mentor Dr. Phil Goodney

Dartmouth Hitchcock Medical Center

Dr. Caronae Howell

FIT Mentor Dr. Benjamin Brooks

University of Utah Hospital and Clinics/The University of Arizona



# Quality – Fellows in Training (FIT) Program 2023-2024 FIT Mentor, FIT Fellow, and Center



FIT Mentor	FIT Fellow	Center
Michael Costanza	Deena Chihade	University Hospital
Samantha Minc	Paul Rothenberg	WVU
Nikolaos Zacharias	Mitri Khoury	Massachusetts General Hospital
Nikolaos Zacharias	Tiffany Bellomo	Massachusetts General Hospital
Arash Bornack	Christopher Chow	University of Miami
Michael Madigan/Mohammed Eslami	Mikayla Lowenkamp	UPMC
Thomas Brothers	Saranya Sundaram	Medical University in South Carolina
Benjamin Jacobs/Sal Scali	Michael Fassler	University of Florida
Adam Beck	Amanda Filiberto	University of Alabama Birmingham
Brian DeRubertis	Nakia Sarad	Weill Cornell Medical Center
Dan Newton	Syeda Ayesha Farooq	Virginia Commonwealth University


**Vascular Verification Program** American College of Surgeons

# Improve Your Quality of Care in Vascular Surgery and Interventional Care

Introducing a new quality program developed by the American College of Surgeons and the Society for Vascular Surgery: a standards-based framework designed to meet the unique needs of vascular programs



facs.org/vascular

Email vascular@facs.org for information

# **Active Regional Charters**



Regional Group						
Name 🕂	Center Name 🔻	Charter Topic 🔹	Lead 🔻	Email Address 🔻	Surgeon Champion 🝷	Comments 🔹
SOUTHEASTERN	UAB	LTFU	Courtney Busby	Busby, Courtney	Dr. Adam Beck	3rd year
VASCULAR STUDY				<cbusby@uabmc< td=""><td></td><td></td></cbusby@uabmc<>		
GROUP				.edu>		

# **Please Identify Yourself**



- Please provide your full name before we begin our data review
- Those that do not will be removed from the call for compliance purposes



# Fall 2023 SVS VQI Regional Report Slides



The VQI Regional Quality Report is produced semiannually to provide centers and regions targeted, comparative results and benchmarks for a variety of procedures, process measures, and postoperative outcomes.

#### Please note the following updates have been implemented to enhance and improve the report:

#### <u>Ability to Download/Print Dashboard</u>

The dashboard summary can now be downloaded as an Excel file or printed directly using buttons included above the dashboard table. Please note that printing allows you to save as PDF with the "Print to PDF" feature in your browser.

Interactive Plots

All graphics are now interactive.

#### https://www.vqi.org/wpcontent/uploads/FALL\_2023\_REGIONAL\_REPORT\_SLIDES\_REGION\_SEVSG.html

#### \*\*\*\*Ctrl + Click to follow link

Keynote speaker – Dr. Gib Upchurch Edward M. Copeland II and the Ann and Ira Horowitz Department Chair of Surgery at UF- Gainesville

# Presentation: The Value of Guidelines in Vascular Surgery





#### Second speaker – Dr. Fadi Shamoun

#### Presentation: The value of ABI/TBI/TcPO2 in peripheral arterial disease







# **Regional Quality Report**

Fall 2023

This report is patient safety work product generated within the SVS PSO, LLC, and is considered privileged and confidential.

#### **Important Notes**

- All results are based on data entered into the VQI as of July 31, 2023. Any subsequent changes or updates to data after that date will not be reflected in this report.
- . Only cases submitted as complete in the PATHWAYS platform are reflected in this report.
- Procedure timeframes and inclusion/exclusion criteria are given at the top of each report. Cases are also excluded if outcomes are missing or not enough data was entered to determine whether the case met inclusion/exclusion criteria.
- . Regions must have at least 3 centers with included cases for regional results to be displayed in tables and line charts.
- Regions must have at least 3 centers with at least 10 included cases per center for regional results to be displayed in bar charts. It is therefore possible for a region's results to be displayed in tables and line charts, but not in bar charts.
- For risk-adjusted reports, regions must have at least 3 centers with at least 10 cases with complete data per center for regional results to be displayed in bar charts. It is therefore possible for a region's results to be displayed in tables and line charts, but not in bar charts.
- . In all graphics, a p-value <.05 is considered statistically significant.
- All graphics are interactive. Hover over a plot to view specific values. Select a section to zoom in on using your cursor (double-click to zoom back out). Click on an item in the legend to include/exclude it from the plot and double-click to isolate it. All plots can be downloaded individually using the camera icon in the top right corner of the plot.

#### Dashboard

The dashboard provides a high-level summarization of your center's results for each of 29 reports, and gives both regional and VQI-wide benchmarks for comparison. The "Your Center" column gives the percentage of your center's cases with the noted outcome. Numbers in parentheses give the number of cases with the outcome and the total number of cases meeting the inclusion criteria for that report. The "Your Region" and "VQI Overall" columns give the aggregate percentage of cases with the noted outcome, as well as the 10th, 25th, 50th (median), 75th, and 90th percentiles for centers in your region and VQI, respectively ([10th|25th|50th|75th|90th]). Your center's results are highlighted blue if your center is in the "top" 25th percentile for VQI Overall, and coral if your center is in the "bottom" 25th percentile for VQI Overall.

#### Dashboard

Procedure Group	Outcome	Your Region	VQI Overall
All	Procedure Volume	[10   18   43   206   335]	[6   20   68   214   395]
	Procedure Volume, All Years	[13   46   151   766   2086]	[15   58   251   1208   3307]
Multiple	Long-Term Follow-up	51.9% [0   30   52   74   86]	71.3% [0   42   74   89   96]
	Discharge Medications	84.1% [71   81   88   95   100]	87.1% [75   83   91   98   100]
	Preop Smoking	28.6% [1   13   25   36   42]	29.6% [7   18   26   35   44]
	Smoking Cessation	34.1% [0   21   33   48   67]	31.7% [0   19   31   44   67]
TFEM CAS ASYMP	Stroke/Death	0.3% [0   0   0   0   0]	1.6% [0   0   0   0
TFEM CAS SYMP	Stroke/Death	2.6% [0   0   0   0   9]	4.3% [0   0   0   0   13]
TCAR ASYMP	Stroke/Death	1% [0   0   0   0   4]	0.9% [0   0   0   0
TCAR SYMP	Stroke/Death	1.3% [0   0   0   0   1]	2% [0   0   0   0
CEA ASYMP	Stroke/Death	1% [0   0   0   0   3]	0.8% [0   0   0   0
	Postop LOS>1 Day	24.6% [8   17   26   38   58]	22.2% [0   12   22   35   50]
CEA SYMP	Stroke/Death	2.2% [0   0   0   0   6]	1.7% [0   0   0   0   6]
	Postop LOS>1 Day	47.4% [0   19   42   62   80]	42.5% [0   25   41   60   80]
EVAR	Postop LOS>2 Days	19% [0   10   17   28   32]	15.4% [0   8   14   21   321
	Sac Diameter Reporting	50% [0   9   53   79   84]	58.1% [0   34   63   80   89]
	SVS AAA Diameter Guideline	71% [44   54   72   81   94]	75.5% [50   66   75   86   100]
TEVAR	Sac Diameter Reporting	64.4% [10   23   75   83   100]	57% [0   33   59   81   100]
OAAA	In-Hospital Mortality	2.5% [0   0   0   3   17]	4% [0   0   0   8
	SVS Cell-Saver Guideline	95.9% [74   92   100   100   100]	93.1% [75   89   97   100   100]
	SVS Iliac Inflow Guideline	97% [94   98   100   100   100]	98.3% [93   98   100   100   100   100
PVI CLAUD	ABI/Toe Pressure	31% [0   9   29   58   92]	67.4% [17   50   74   89

46/121

#### **Procedure Volume**

Procedures performed between July 1, 2022 and June 30, 2023

Number of cases entered into the VQI, by registry and overall

	Your Region (N)	VQI Overall (N)
CAS (TFEM CAS & TCAR)	3149	23334
CEA	2169	19076
EVAR	623	8085
HDA	393	5660
INFRA	629	7272
IVCF	42	1006
LEAMP	166	3670
OAAA	98	1348
PVI	4814	50854
SUPRA	206	2032
TEVAR	336	3849
Varicose Veins	620	6196
Overall (July 2022-June 2023)	13245	132382
Overall (July 2021-June 2022)	13149	127080

#### **Procedure Volume**



102 of 114 centers displayed

#### **Procedure Volume**



Procedure Volume Across VQI (July 2022-June 2023)

### **Procedure Volume, All Years**

Includes all procedures with procedure date through June 30, 2023

Number of cases entered into the VQI, by registry and overall

	Your Region (N)	VQI Overall (N)
CAS (TFEM CAS & TCAR)	11808	102290
CEA	17579	196769
EVAR	5698	80848
HDA	7237	75884
INFRA	6793	81473
IVCF	1522	18296
LEAMP	2803	28881
OAAA	1197	17850
PVI	27882	379671
SUPRA	2386	25862
TEVAR	2851	28950
Varicose Veins	4697	61876
Overall	92453	10986 50

#### **Procedure Volume, All Years**



Centers (centers with <10 cases not shown)

117 of 127 centers displayed

#### **Procedure Volume, All Years**



Procedure Volume Across VQI (Through June 2023)

Regions (regions with <3 centers with at least 10 cases not shown)

"Others" indicates centers that do not belong to a regional group.

#### **Physician Specialties**



#### **Physician Specialties**



Physician Specialties Across Your Region (as of July 31, 2023, N=783 Physicians)

Procedures performed between July 1, 2020 and June 30, 2021

Includes CAS (TFEM CAS and TCAR), CEA, EVAR, HDA, INFRA, IVCF, LEAMP, OAAA, PVI, SUPRA, and TEVAR procedures only. Excludes procedures not eligible for long-term follow-up.

The table below gives the number of procedures meeting the inclusion criteria, and the percentage of those procedures with followup recorded between 9 and 21 months post-procedure.

	Your Region	VQI Overall
CAS	1952 (58%)	15193
		(70%)
CEA	1965 (72%)	18765
		(74%)
EVAR	660 (64%)	7931
		(73%)
HDA	838 (56%)	7610
		(70%)
INFRA	744 (59%)	7724
		(75%)
IVCF	114 (32%)	1587
		(74%)
LEAMP	346 (36%)	3303
		(70%)
OAAA	80 (68%)	1362
		(76%)
PVI	4881 (37%)	45136
		(70%)
SUPRA	231 (67%)	2071
		(75%)
TEVAR	254 (77%)	3112
		(69%)
Overall (July 2020-June 2021)	12065 (52%)	113794
		(71%)
Overall (July 2019-June 2020)	9398 (68%)	102251
		(76%)



🔶 VQI Overall 🔶 Your Region



74 of 87 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2022 and June 30, 2023

Includes CAS (TFEM CAS and TCAR), CEA, EVAR, INFRA, LEAMP, OAAA, PVI, SUPRA, and TEVAR procedures only. Antiplatelet is defined as ASA or P2Y12 inhibitor. Cases are excluded if (1) Discharge Statin = "No, for medical reason" OR (2) Both Discharge ASA = "No, for medical reason" AND Discharge P2Y12 inhibitor = "No, for medical reason" OR (3) An in-hospital death occurred.

The table below gives the number of procedures meeting the inclusion criteria, and the percentage of those procedures where patients received discharge medications.

	Number of Procedures at Your Center	Antiplatelet+Statin	Antiplatelet Only	Statin Only	Neither
Your Region Overall	11433	84%	9%	4%	3%
VQI Overall	112903	87%	8%	3%	2%



🔶 VQI Overall 🔶 Your Region



99 of 112 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2022 and June 30, 2023

Includes elective CAS (TFEM CAS and TCAR), CEA, EVAR, INFRA, LEAMP, OAAA, PVI, SUPRA, and TEVAR procedures only.

The table below gives the number of procedures meeting the inclusion criteria, and the percentage of those procedures where the patient was still smoking within one month of the procedure.

	Your Region	VQI Overall
CAS	2453 (21%)	18540
		(23%)
CEA	1762 (23%)	16116
		(24%)
EVAR	525 (31%)	6749
		(32%)
INFRA	423 (35%)	5487
		(39%)
LEAMP	87 (36%)	1545
		(26%)
OAAA	69 (39%)	981
		(43%)
PVI	3260 (34%)	39806
		(32%)
SUPRA	139 (56%)	1526
		(53%)
TEVAR	250 (26%)	2720
		(29%)
Overall (July 2022-June 2023)	8968 (29%)	93470
		(30%)

63/121



🔶 VQI Overall 🔶 Your Region



91 of 113 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2020 and June 30, 2021

Includes CAS (TFEM CAS and TCAR), CEA, EVAR, HDA, INFRA, LEAMP, OAAA, PVI, SUPRA, and TEVAR procedures performed on patients still smoking within one month of the procedure. Excludes procedures that do not have at least one long-term follow-up record where the patient's follow-up smoking status was recorded.

The table below gives the number of procedures meeting the inclusion criteria, and the percentage of those procedures where the patient was not smoking within one month on follow-up for *all* long-term follow-up records where the patient's follow-up smoking status was recorded.

CAS	231 (38%) Your Region	
CEA	314 (35%)	3400
		(31%)
EVAR	123 (31%)	1746
		(29%)
HDA	33 (18%)	582
		(32%)
INFRA	165 (36%)	2241
		(35%)
LEAMP	17 (29%)	466
		(33%)
OAAA	19 (42%)	431
		(39%)
PVI	442 (31%)	9090
		(29%)
SUPRA	75 (39%)	787
		(34%)
TEVAR	49 (39%)	593
		(43%)
Overall (July 2020-June 2021)	1468 (34%)	21773
		(32%)



🔶 VQI Overall 🔶 Your Region



36 of 70 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



"\*" Indicates region's rate differs significantly from the VQI rate.

#### **TFEM CAS ASYMP: Stroke/Death**

Procedures performed between July 1, 2022 and June 30, 2023

Includes Transfemoral Carotid Artery Stenting (TFEM CAS) procedures performed on asymptomatic patients. Asymptomatic patients are patients with no ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Includes procedures utilizing a femoral, brachial, or radial approach. Excludes any patient with prior vertebrobasilar TIA or stroke, prior ipsilateral CAS, CAS for intracranial treatment, or any procedure involving dissection, trauma, FMD, or "Other" lesion types. Procedures with an approach other than femoral, brachial, or radial are also excluded.

The table below gives the number of TFEM CAS procedures (performed on asymptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

	Your Region	VQI Overall
Number of TFEM CAS procedures meeting inclusion criteria	307	274 2
Observed rate of stroke or death among procedures meeting inclusion criteria	0.3%	1.6 %
Number of procedures with complete data*	284	248 3
Observed rate of stroke or death among cases with complete data	0.4%	1.6 %
Expected Rate of stroke or death among cases with complete data	2%	NA

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#### **TFEM CAS ASYMP: Stroke/Death**



Rates shown are observed rates among cases meeting inclusion criteria.




13 of 39 centers displayed

Rates shown are among cases with complete data.



Rates shown are among cases with complete data.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Transfemoral Carotid Artery Stenting (TFEM CAS) procedures performed on symptomatic patients. Symptomatic patients are patients with an ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Includes procedures utilizing a femoral, brachial, or radial approach. Excludes any patient with prior vertebrobasilar TIA or stroke, prior ipsilateral CAS, CAS for intracranial treatment, or any procedure involving dissection, trauma, FMD, or "Other" lesion types. Procedures with an approach other than femoral, brachial, or radial are also excluded.

The table below gives the number of TFEM CAS procedures (performed on symptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

	Your Region	VQI Overall
Number of TFEM CAS procedures meeting inclusion criteria	235	292
Observed rate of stroke or death among procedures meeting inclusion criteria	2.6%	4.3
Number of procedures with complete data*	215	% 269
Observed rate of stroke or death among cases with complete data	1.4%	8 4%
Expected Rate of stroke or death among cases with complete data	3.5%	NA
P-value for comparison of observed and expected rates	0.1	NA

"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.







6 of 39 centers displayed

Rates shown are among cases with complete data.



Rates shown are among cases with complete data.

Procedures performed between July 1, 2022 and June 30, 2023

Includes TransCarotid Artery Revascularization (TCAR) procedures performed on asymptomatic patients. Asymptomatic patients are patients with no ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar TIA or stroke, prior ipsilateral CAS, CAS for intracranial treatment, or any procedure involving dissection, trauma, FMD, or "Other" lesion types. Procedures with an approach other than carotid percutaneous or carotid open are also excluded.

The table below gives the number of TCAR procedures (performed on asymptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

	Your Region	VQI Overall
Number of TCAR procedures meeting inclusion criteria	1450	931 3
Observed rate of stroke or death among procedures meeting inclusion criteria	1%	0.9 %
Number of procedures with complete data*	1320	868 1
Observed rate of stroke or death among cases with complete data	0.9%	0.9 %
Expected Rate of stroke or death among cases with complete data	1%	NA

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Centers (centers with <10 complete cases not shown)

46 of 90 centers displayed

Rates shown are among cases with complete data.



Rates shown are among cases with complete data.

Procedures performed between July 1, 2022 and June 30, 2023

Includes TransCarotid Artery Revascularization (TCAR) procedures performed on symptomatic patients. Symptomatic patients are patients with an ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar TIA or stroke, prior ipsilateral CAS, CAS for intracranial treatment, or any procedure involving dissection, trauma, FMD, or "Other" lesion types. Procedures with an approach other than carotid percutaneous or carotid open are also excluded.

The table below gives the number of TCAR procedures (performed on symptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

	Your Region	VQI Overall
Number of TCAR procedures meeting inclusion criteria	600	441 2
Observed rate of stroke or death among procedures meeting inclusion criteria	1.3%	2%
Number of procedures with complete data*	551	415 3
Observed rate of stroke or death among cases with complete data	1.3%	2%
Expected Rate of stroke or death among cases with complete data	2%	NA
P-value for comparison of observed and expected rates	0.35	NA

\*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.





Centers (centers with <10 complete cases not shown)

21 of 79 centers displayed

Rates shown are among cases with complete data.



Rates shown are among cases with complete data.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Carotid Endarterectomy (CEA) procedures performed on asymptomatic patients. Asymptomatic patients are patients with no ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral CEA or CAS, or any procedure with a concomitant CABG, proximal endovascular, distal endovascular, or "Other" arterial procedure.

The table below gives the number of CEA procedures (performed on asymptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria	1341	1119 4
Observed rate of stroke or death among procedures meeting inclusion criteria	1%	0.8 %
Number of procedures with complete data*	1229	1045 0
Observed rate of stroke or death among cases with complete data	1%	0.8 %
Expected Rate of stroke or death among cases with complete data	0.8%	NA

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Centers (centers with <10 complete cases not shown)

32 of 55 centers displayed

Rates shown are among cases with complete data.



Rates shown are among cases with complete data.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Carotid Endarterectomy (CEA) procedures performed on asymptomatic patients. Asymptomatic patients are patients with no ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral CEA or CAS, or any procedure with a concomitant CABG, proximal endovascular, distal endovascular, or "Other" arterial procedure. Procedures where in-hospital death occurred with postoperative LOS≤1 day, or procedures with an unrelated return to the OR, are also excluded. Postoperative LOS is based on the midnight rule used for hospital billing.

The table below gives the number of CEA procedures (performed on asymptomatic patients) meeting the inclusion criteria, and the observed and expected rates of postoperative LOS>1 Day for those cases.

	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria	1337	1114 2
Observed rate of LOS>1 day among procedures meeting inclusion criteria	24.6%	22.2 %
Number of procedures with complete data*	1225	1040 2
Observed rate of LOS>1 day among cases with complete data	24.2%	21.7 %
Expected Rate of LOS>1 day among cases with complete data	22.2%	NA

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32 of 55 centers displayed

Rates shown are among cases with complete data.



Rates shown are among cases with complete data.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Carotid Endarterectomy (CEA) procedures performed on symptomatic patients. Symptomatic patients are patients with an ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral CEA or CAS, or any procedure with a concomitant CABG, proximal endovascular, distal endovascular, or "Other" arterial procedure.

The table below gives the number of CEA procedures (performed on symptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria	503	524 5
Observed rate of stroke or death among procedures meeting inclusion criteria	2.2%	1.7 %
Number of procedures with complete data*	479	499 4
Observed rate of stroke or death among cases with complete data	2.3%	1.8 %
Expected Rate of stroke or death among cases with complete data	2%	NA

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Stroke or Death after CEA for Symptomatic Patients in Your Region (July 2022-June 2023)

Centers (centers with <10 complete cases not shown)

Rates shown are among cases with complete data.

<sup>21</sup> of 47 centers displayed



Rates shown are among cases with complete data.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Carotid Endarterectomy (CEA) procedures performed on symptomatic patients. Symptomatic patients are patients with an ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral CEA or CAS, or any procedure with a concomitant CABG, proximal endovascular, distal endovascular, or "Other" arterial procedure. Procedures where in-hospital death occurred with postoperative LOS≤1 day, or procedures with an unrelated return to the OR, are also excluded. Postoperative LOS is based on the midnight rule used for hospital billing.

The table below gives the number of CEA procedures (performed on symptomatic patients) meeting the inclusion criteria, and the observed and expected rates of postoperative LOS>1 Day for those cases.

	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria	498	521 2
Observed rate of LOS>1 day among procedures meeting inclusion criteria	47.4%	42.5 %
Number of procedures with complete data*	474	496 1
Observed rate of LOS>1 day among cases with complete data	46.6%	42.3 %
Expected Rate of LOS>1 day among cases with complete data	41.5%	NA

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Centers (centers with <10 complete cases not shown)

21 of 47 centers displayed

Rates shown are among cases with complete data.



Rates shown are among cases with complete data.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Endovascular AAA Repair (EVAR) procedures. Excludes any procedure with ruptured aneurysm. Procedures where in-hospital death occurred with postoperative LOS≤2 days are also excluded. Postoperative LOS is based on the midnight rule used for hospital billing.

The table below gives the number of EVAR procedures meeting the inclusion criteria, and the observed and expected rates of postoperative LOS>2 Days for those cases.

	Your Region	VQI Overall
Number of EVAR procedures meeting inclusion criteria	585	751 6
Observed rate of LOS>2 days among procedures meeting inclusion criteria	19%	15.4 %
Number of procedures with complete data*	554	686 2
Observed rate of LOS>2 days among cases with complete data	19.1%	15.4 %
Expected Rate of LOS>2 days among cases with complete data Experience and the rate estimated by a state that accounts for baracteristics, including age, gender, race	, BMI, comorbidities, medic	ation and stroke and
HARANG HAR COMPANIAN HARACHARD AND COMPANIA COMPANIA AND A COMPANIA AND A COMPANIA AND A COMPANIA AND A COMPANIA	0.03	NA





Centers (centers with <10 complete cases not shown)

#### 21 of 29 centers displayed

Rates shown are among cases with complete data.



Rates shown are among cases with complete data.

# **EVAR: Sac Diameter Reporting**

Procedures performed between July 1, 2020 and June 30, 2021

Includes Endovascular AAA Repair (EVAR) procedures. Excludes patients who were converted to open or died within 21 months of surgery.

The table below gives the number of EVAR procedures meeting the inclusion criteria, and the percentage of those procedures where a sac diameter was reported between 9 and 21 months post-procedure.

	Your Region	VQI Overall
Number of EVAR procedures meeting inclusion criteria	610	726 4
Percentage with sac diameter reported between 9 and 21 months post-procedure	50%	58.1 %

# **EVAR: Sac Diameter Reporting**



✦ VQI Overall ✦ Your Region


20 of 28 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Endovascular AAA Repair (EVAR) procedures. Excludes any non-elective procedure. SVS AAA diameter guideline is ≥5 cm for Women and ≥5.5cm for men. If the patient has any iliac aneurysm, the guideline is considered met regardless of AAA diameter.

The table below gives the number of EVAR procedures meeting the inclusion criteria, and the percentage of those procedures meeting the SVS AAA diameter guideline.

	Your Region	VQI Overall
Number of EVAR procedures meeting inclusion criteria	517	6684
Percentage meeting SVS AAA diameter guideline	71%	75.5 %



🔶 VQI Overall 🔶 Your Region



19 of 28 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



"\*" Indicates region's rate differs significantly from the VQI rate.





# **Extra-anatomical Bypass as a Perfusion Alternative in the Treatment of Complex Thoracoabdominal Aortic Disease**

Christopher Montoya, Vascular Research Fellow University of Miami – School of Medicine

### UNIVERSITY OF MIAMI MILLER SCHOOL of MEDICINE





Extra-Anatomical Bypasses as Perfusion Alternatives in The Treatment of Complex Thoracoabdominal Aortic Disease.

**Christopher Montoya, MD.** Vascular Surgery Research Fellow

Arash Bornak, MD. Stefan Kenel-Pierre, MD. Mathew Sussman, MD. Jorge Rey, MD.

# Historical context: Open TAAA repair



# Epidemiology

- Incidence: 10 per 100,000/year.
- 10% of all aortic aneurysms.
- Preponderance (60-70%) TAAA occurred in men
- Growth rate
  - Men: 0.17cm
  - Women: 0.25 cm
- Patients experience a 5-year survival rate of 10-15% in the absence of intervention.

# General aspects of TAAA open repair



Long-term results:

- Good rates of freedom from repair failure at 5 (97.9%), 10 (95.3%) and 15 (94.1%) years.
- Low report rates of complications
  - Low incidence of graft infection at long-term follow-up.
- In-hospital mortality of 7.5%

Coselli JS, LeMaire SA, Preventza O, de la Cruz KI, Cooley DA, Price MD, Stolz AP, Green SY, Arredondo CN, Rosengart TK. Outcomes of 3309 thoracoabdominal aortic aneurysm repairs. J Thorac Cardiovasc Surg. 2016 May;151(5):1323-37.

# Main challenge: Ischemia

## **Risk of ischemic damage to:**

- -Viceral organs
- -Limbs
- -Spinal cord

# Risk factors for mortality or ischemic injury:

- -Age
- -COPD
- -Kidney disease
- -Urgent or emergent repair

Strategy for prevention of ischemic injury	Approach	2010 AHA/ACC guideline (14)	2022 AHA/ACC guideline (9)
Distal perfusion (left heart bypass or CPB)	Open	COR 2A, LOE B	No recommendation
Reimplantation of segmental arteries	Open	No recommendation	No recommendation
Moderate systemic hypothermia	Open	COR 2A, LOE B	No recommendation
CSF drainage	Open and Endo	COR 1, LOE B	COR 1, LOE A
Preservation of left subclavian and internal iliac arteries	Open and Endo	No recommendation	No recommendation
Staged repair	Open and Endo	No recommendation	No recommendation
Preoperative segmental artery embolization	Open and Endo	No recommendation	No recommendation
Neuromonitoring	Open and Endo	COR 2B, LOE B	No recommendation
Intrathecal papaverine	Open and Endo	COR 2B, LOE B	No recommendation
Optimize spinal cord perfusion (CSF drainage, deliberate hypertension, anemia and hypoxemia)	Open and Endo	No recommendation	COR 1, LOE B-NR
Epidural irrigation with hypothermic solutions	Open	COR 2B, LOE B	No recommendation
High-dose glucocorticoids	Open and Endo	COR 2B, LOE B	No recommendation
Osmotic diuresis (mannitol)	Open and Endo	COR 2B, LOE B	No recommendation
Preoperative hydration	Open and Endo	COR 2B, LOE C	No recommendation
Cold renal perfusion	Open	COR 2B, LOE B	COR 1, LOE A
Blood perfusion	Open	COR 2B, LOE B	COR 1, LOE A
Intraoperative mannitol administration	Open and Endo	COR 2B, LOE C	No recommendation
Furosemide, mannitol, or dopamine for renal protection	Open and Endo	COR 3, LOE B	No recommendation

# Which techniques can be used for open TAAA repair?





Gallegos, J.J., Arnaoutakis, G., Arnaoutakis, D.J., Freeman, K.A., Hall, D.J., Alhussaini, M. (2019). Surgical Treatment of the Thoracic Aorta. In: Dieter, R., Dieter Jr., R., Dieter III, R. (eds) Diseases of the Aorta . Springer, Cham. https://doi.org/10.1007/978-3-030-11322-3\_18

# If a vascular surgeon does not have a cardiac surgeon readily available, what can be done?

# Temporary extra-anatomical bypass (EAB) can be an option

These procedures should only be performed in a specialized center.

# **Case 1: Initial assessment**

- Age: 64 y/o
- Sex: Male

**Surgical plan:** Type 2 TAAA open repair with EAB.

Thoracic descending aorta: 5.3cm Distal descending aorta: 3.6cm Abdominal aorta: 7cm

# **Case 2: Initial assessment**

- Age: 59 y/o
- Sex: Male
- **PMI:** HTN, Stanford type B dissection.
- **Previous surgeries:** EVAR + bilateral iliac stenting at another institution.
- HPI: Persistent lower abdominal symptoms, tender abdomen over the segment of the aneurysm.

# CTA

### Surgical plan:

- Initial type 3 TAAA open repair with EAB.
- Staged TEVAR.

# Surgical procedure EABs.

#### **Right axillo-bifemoral bypass**

- Right axillar anastomosis to PTFE graft.
- Bilateral femoral anastomosis.

#### Left axillo-visceral bypass

- Left axillar anastomosis to PTFE graft.
- Creation of subcutaneous pocket for later perfusion of Celiac artery and SMA.



# Surgical procedure

Thoracic aorta repair



#### **TAAA repair (Thoracic segment)**

- Proximal thoracic clamp.
- Interval clamp proximal to the CT.
- Proximal thoracic anastomosis to the Dacron graft end to end.

#### Perfusion (Through the right EAB)

- Lower extremities <u>antegrade</u> perfusion.
- CT, SMA, renal and lumbar arteries retrograde perfusion.

#### Case 1 remarks.

- Lung deflation
- No reattachment of intercostal arteries

# Surgical procedure

Abdominal aorta repair





# **Outcomes:**

• Both patients experienced transitory lower extremity weakness, that resolved completely.

#### **Special remarks:**

- **Case 1:** No post operatory complications, discharge at day 16.
- **Case 2:** At POD 10, experienced chest pain and a new CT showed increased size of the upper thoracic segment. (PMH: Chronic Stanford B dissection)
  - **TEVAR:** Gore conformable thoracic aortic graft 28 x 10, 34 x 15.

#### Case 2 images



# Can EAB be useful in aortic arch repairs?

Age: 36 y/o Sex: Male HPI: MVA car vs moped

### Initial diagnosis:

- Traumatic pseudoaneurysm of the aortic arch
- Multiple intracranial hemorrhages
  - Contraindication for extracorporeal circulation
  - Deemed as "no surgical candidate" by cardiac surgery



# **Surgical procedure**

- Extra-anatomical and extracorporeal left femoral to bilateral carotid bypass to maintain cerebral perfusion.
- Endovascular coverage of the aortic arch
- In situ laser fenestration of the innominate artery
- Right to left carotid-carotid-subclavian bypass.
- Proximal ligation of the left common carotid artery.

Discharged at 45 days, no complication.



# Take home messages

- Planning the surgery for complex thoracoabdominal aneurysms is crucial and involves interdisciplinary complex surgical techniques.
- The standard of care has been a cooperative approach between cardiothoracic and vascular surgeons. However, the use of EAB can be a life-saving alternative to traditional thoracoabdominal repair protocols.
- In the future, newer devices may become widely available to treat these complex patients.
- EAB should be present in the vascular surgeon available techniques to treat this complex disease in cases in which cardiac bypasses are not an option.

# Thank you!





Procedures performed between July 1, 2020 and June 30, 2021

Includes Thoracic Endovascular Aortic Repair (TEVAR) procedures for aneurysm or aneurysm from dissection. Excludes procedures where no aortic device was implanted or patients who were converted to open or died within 21 months of surgery.

The table below gives the number of TEVAR procedures meeting the inclusion criteria, and the percentage of those procedures where a sac diameter was reported between 9 and 21 months post-procedure.

	Your Region	VQI Overall
Number of TEVAR procedures meeting inclusion criteria	132	158 2
Percentage with sac diameter reported between 9 and 21 months post-procedure	64.4%	57 %

134/121



🔶 VQI Overall 🔶 Your Region



6 of 9 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



Regions (regions with <3 centers with at least 10 cases not shown)

"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2019 and June 30, 2023

Includes Open AAA (OAAA) procedures. Excludes any patient with a ruptured aneurysm.

The table below gives the number of OAAA procedures meeting the inclusion criteria, and the observed and expected rates of inhospital death for those cases.

Y	our Region	VQI Overall
Number of OAAA procedures meeting inclusion criteria	365	476 3
Observed rate of In-Hospital Mortality among procedures meeting inclusion criteria	2.5%	4%
Number of procedures with complete data*	340	447 0
Observed rate of In-Hospital Mortality among cases with complete data	2.6%	3.7 %
Expected Rate of In-Hospital Mortality among cases with complete data	4.9%	NA

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Rates shown are observed rates among cases meeting inclusion criteria.



Centers (centers with <10 complete cases not shown)

8 of 20 centers displayed

Rates shown are among cases with complete data.

"\*" Indicates center's observed rate differs significantly from its expected rate



Rates shown are among cases with complete data.

"\*" Indicates region's observed rate differs significantly from its expected rate

## **OAAA: SVS Cell-Saver Guideline**

Procedures performed between July 1, 2019 and June 30, 2023

Includes Open AAA (OAAA) procedures. Excludes any patient with EBL≤500 ml. SVS cell-saver guideline is met if cell salvage or ultrafiltration device was used.

The table below gives the number of OAAA procedures meeting the inclusion criteria, and the percentage of those procedures meeting the SVS cell-saver guideline.

	Your Region	VQI Overall
Number of OAAA procedures meeting inclusion criteria	363	4782
Percentage meeting SVS cell-saver guideline	95.9%	93.1 %

## **OAAA: SVS Cell-Saver Guideline**



→ VQI Overall → Your Region → Your Region (4-yr Rate)

## **OAAA: SVS Cell-Saver Guideline**



Centers (centers with <10 cases not shown)

9 of 20 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.
#### **OAAA: SVS Cell-Saver Guideline**



Regions (regions with <3 centers with at least 10 cases not shown)

"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2019 and June 30, 2023

Includes Open AAA (OAAA) procedures. SVS iliac inflow guideline is met if preservation of flow was maintained to at least one internal iliac artery.

The table below gives the number of OAAA procedures meeting the inclusion criteria, and the percentage of those procedures meeting the SVS iliac inflow guideline.

	Your Region	VQI Overall
Number of OAAA procedures meeting inclusion criteria	402	5389
Percentage meeting SVS iliac inflow guideline	97%	98.3 %



→ VQI Overall → Your Region → Your Region (4-yr Rate)



Centers (centers with <10 cases not shown)

9 of 20 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Peripheral Vascular Intervention (PVI) procedures for mild, moderate, or severe claudication. "ABI/Toe Pressure Assessment" indicates at least one ABI or toe pressure assessment was made prior to PVI for the side of the procedure, or on both sides for bilateral and aortic procedures.

The table below gives the number of PVI procedures meeting the inclusion criteria, and the percentage of those procedures in which an ABI or toe pressure was assessed prior to PVI.

	Your Region	VQI Overall
Number of PVI procedures meeting inclusion criteria	1399	1709 2
Percentage with ABI/toe pressure assessment	31%	67.4 %



🔶 VQI Overall 🔶 Your Region



27 of 37 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Infrainguinal Bypass (INFRA) procedures for rest pain, tissue loss (i.e., ulcer, necrosis, or non-healing amputation), or acute ischemia. Major complications are defined as in-hospital death, ipsilateral BK or AK amputation, or graft occlusion.

The table below gives the number of INFRA procedures meeting the inclusion criteria, and the percentage of those procedures that resulted in in-hospital death, ipsilateral BK or AK amputation, or graft occlusion.

	Your Region	VQI Overall
Number of INFRA procedures meeting inclusion criteria	419	537 7
Percentage with major complications	2.9%	4.8 %

154/121



→ VQI Overall → Your Region



Centers (centers with <10 cases not shown)

13 of 18 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



Major Complications after INFRA for CLTI by Region Across VQI (July 2022-June 2023)

Regions (regions with <3 centers with at least 10 cases not shown)

"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Suprainguinal Bypass (SUPRA) procedures for rest pain, tissue loss (i.e., ulcer, necrosis, or non-healing amputation), or acute ischemia. Major complications are defined as in-hospital death, ipsilateral BK or AK amputation, or graft occlusion.

The table below gives the number of SUPRA procedures meeting the inclusion criteria, and the percentage of those procedures that resulted in in-hospital death, ipsilateral BK or AK amputation, or graft occlusion.

	Your Region	VQI Overall
Number of SUPRA procedures meeting inclusion criteria	126	126 6
Percentage with major complications	7.9%	7.3 %



✦ VQI Overall → Your Region



Centers (centers with <10 cases not shown)

3 of 15 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



Regions (regions with <3 centers with at least 10 cases not shown)

"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Lower-Extremity Amputation (LEAMP) procedures. Postoperative complications are defined as myocardial infarction, dysrhythmia, congestive heart failure, surgical site infection, renal complication, or respiratory complication.

The table below gives the number of LEAMP procedures meeting the inclusion criteria, and the percentage of those procedures that resulted in a postoperative complication.

	Your Region	VQI Overall
Number of LEAMP procedures meeting inclusion criteria	166	3640
Percentage with postoperative complications	16.3%	11.8 %



→ VQI Overall → Your Region



Postop Complications after LEAMP in Your Region (July 2022-June 2023)

Centers (centers with <10 cases not shown)

3 of 3 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



"\*" Indicates region's rate differs significantly from the VQI rate.





# END-STAGE KIDNEY DISEASE AND CHRONIC LIMB-THREATENING ISCHEMIA: WHAT TREATMENT IS OPTIMAL?

S. L. Rakestraw The University of Alabama at Birmingham



End-Stage Kidney Disease and Chronic Limb-Threatening Ischemia: What Treatment is Optimal?

**SL Rakestraw,** MY Wang, Z Novak, EL Spangler, AW Beck, DC Sutzko

SEVSG

27 October 2023



# Introduction

CLTI can rec

Stu

- End-Stage Kidney Disease (ESKD) can lead to Chronic Limb-Threatening Ischemia (CLTI)
  - Aim: Examine outcomes of revascularization and amputation within a population with ESKD and CLTI





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	ESKD PVI	ESKD Bypass	ESKD Amp	Non-ESKD PVI	Non-ESKD Bypass	Non-ESKD Amp	
	(N=5,040)	(N=1,402)	(N=426)	(N=30,886)	(N=15,623 )	(N=1,514)	<i>P</i> -value
	No., %	No., %	No., %	No., %	No., %	No., %	
Age (± Standard Deviation)	66.53±11.77	66.42±10.57	64.51±12.08	71.96±11.95	67.94±10.93	68.62±13.28	<.001
BMI (± Standard Deviation)	28.97±6.89	27.48±5.97	27.54±7.03	28.03±6.72	27.24±6.23	27.31±8.05	<.001
Male Sex	3 080 (61 1)	979 (66 3)	256 (60 1)	17 372 (56 2)	10,136	981 (64 8)	< 001
Black Race	1 815 (36 0)	484 (34 5)	243 (57 0)	5 435 (17 6)	2 695 (17 3)	557 (36.8)	< 001
LITN	4,724 (02.0)	1,241 (05.6)	AD1 (0A 1)	27,100 (97.7)	13,935 (89.2)	1 21/ (06 0)	< 001
CAD	1,986 (39.4)	609 (43.4)	152 (35.7)	8,919 (28.9)	4,725 (30.2)	385 (25.4)	<.001
CHF	2,267 (45.0)	640 (45.6)	201 (47.2)	7,162 (23.2)	2,966 (19.0)	389 (25.7)	<.001
	1/10/ (011/)	· · · · · · · · · · · · · · · · · · ·	3712 (0010)	10,511 (5115)	8,633 (5513)		
Smoking History	2,795 (55.5)	982 (70.0)	237 (55.6)	20,199 (65.4)	12,990 (83.1)	960 (63.4)	<.001
current Smoking	004 (10.0)	233 (21.2)	30 (13.5)	0,037 (20.0)	0,009 (42.7)	222 (20.1)	<.001



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#### **Survival - Amps**





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## **Ambulation**

	OR	95% CI	<i>p</i> -value
Preop Ambulation	2.915	2.338-3.634	<.001
Male Sex	1.048	0.895-1.228	.559
Postop LOS	0.969	0.960-0.977	<.001
Coronary Artery Disease	0.933	0.794-1.098	.405
Congestive Heart Failure	0.844	0.720-0.988	.035
Black Race	0.857	0.732-1.004	.055
Diabetes	0.727	0.583-0.907	.005
Amputation	0.310	0.232-0.415	<.001



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# Limitations

- Missingness of postop ambulation data
- Retrospective study
- Granularity

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# Conclusions

- ESKD patients have lower 2-year survival regardless of index procedure
- The role of amputation in mortality in ESKD is <u>not as strong</u> as patients without ESKD
- ESKD patients have a <u>decline in functional status</u> regardless of lower extremity procedure
- Procedure selection and rehabilitation are <u>crucial</u> to improving patient outcomes



Department of Surgery


#### THE UNIVERSITY OF ALABAMA AT BIRMINGHAM.

Danielle Sutzko, MD MS Zdenek Novak, MD PhD Adam Beck, MD Emily Spangler, MD MS Department of Vascular Surgery



National Institutes of Health [5T32DK007545 – 34, 1TL1DK139566-01 ] Veterans Health Administration Research Development Award



# **Two-Year Survival**

	ESKD PVI	ESKD Bypass	ESKD Amp	Non-ESKD PVI	Non-ESKD Bypass	Non-ESKD Amp	
	(N=5,040)	(N=1,402)	(N=426)	(N=30,886)	(N=15,623 )	(N=1,514)	<i>P</i> -value
	No., %	No., %	No., %	No., %	No., %	No., %	
Mean Survival ± Standard Error (Months)	16.01 ± 0.13	17.10 ± 0.24	16.40 ± 0.46	20.73 ± 0.04	21.76 ± 0.05	19.09 ± 0.22	<.001
Overall Survival	2,785 (55.3)	563 (59.8)	183 (56.9)	6,023 (80.5)	2,154 (86.2)	411 (72.9)	<.001



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Procedures performed between July 1, 2022 and June 30, 2023

Includes Hemodialysis Access (HDA) procedures. Excludes procedures where Access Type = Endo AVF or patients with a previous access procedure in the same arm.

The table below gives the number of HDA procedures meeting the inclusion criteria, and the percentage of those procedures that were primary AVF.

	Your Region	VQI Overall
Number of HDA procedures meeting inclusion criteria	321	461 2
Percentage with primary AVF	74.1%	82%



🔶 VQI Overall 🔶 Your Region



6 of 7 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Hemodialysis Access (HDA) procedures.

The table below gives the number of HDA procedures meeting the inclusion criteria, and the percentage of those procedures with preoperative ultrasound vein mapping.

	Your Region	VQI Overall
Number of HDA procedures meeting inclusion criteria	- 393	5656
Percentage with preoperative ultrasound vein mapping	92.6%	87.9 %



🔶 VQI Overall 🔶 Your Region



6 of 7 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



Regions (regions with <3 centers with at least 10 cases not shown)

"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2022 and June 30, 2023

Includes Hemodialysis Access (HDA) procedures.

The table below gives the number of HDA procedures meeting the inclusion criteria, and the percentage of those procedures that resulted in an immediate postoperative complication. Postoperative complications are defined as bleeding, ischemic steal, ischemic monomelic neuropathy, access thrombosis, or other complication requiring reoperation.

	Your Region	VQI Overall
Number of HDA procedures meeting inclusion criteria	393	565
		6
Percentage with immediate postoperative complications	0.8%	1.4
		%



→ VQI Overall → Your Region



Centers (centers with <10 cases not shown)

6 of 7 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



Regions (regions with <3 centers with at least 10 cases not shown)

"\*" Indicates region's rate differs significantly from the VQI rate.

Procedures performed between July 1, 2020 and June 30, 2021

Includes Inferior Vena Cava Filter (IVCF) procedures. Excludes filters with permanent planned duration, patients who have expired, or patients where no follow-up was possible.

The table below gives the number of procedures meeting the inclusion criteria, and the percentage of those procedures in which the filter was reported as retrieved (or retrieval was attempted) at any time post-procedure. Because follow-up is critical for assessing filter retrieval, cases meeting the inclusion criteria are broken down into those with follow-up records (at least 1 follow-up record) and those without follow-up records.

Number of IVCF procedures meeting inclusion criteria	Your Region	vui Overalij2
		5
Number without follow-up records	59	233
Number with follow-up records	28	792
Percentage with Filter Retrieval, or Attempt at Retrieval	13.8%	49.8 %
Percentage not retrieved because No Follow-up Records Created	67.8%	22.7 %
Percentage not retrieved because Not Clinically Indicated	10.3%	18.3 %
Percentage not retrieved because Patient Declined	4.6%	1.4 %
Percentage not retrieved because Lost to Follow-Up	0%	5.2 %
Percentage not retrieved because Deemed Too Late for Removal	0%	0%
Percentage not retrieved because Planned Later Removal	2.3%	2.8 %
Percentage not retrieved because No Reason Given	1.1%	0.3 %



🔶 VQI Overall 🔶 Your Region



4 of 5 centers displayed

"\*" Indicates center's rate differs significantly from the regional rate.



Regions (regions with <3 centers with at least 10 cases not shown)

"\*" Indicates region's rate differs significantly from the VQI rate.

#### **Region Volume Appendix**

The Region Volume Appendix provides your region's case volumes for each report. In addition, the number of centers with cases contributing to each report is given. Note that columns referencing complete cases are appropriately left blank for non risk-adjusted reports.

Report	Included Cases	Centers with Included Cases	Centers with at least 10 Included Cases	Complete Cases	Centers with Complete Cases	Centers with at least 10 Complete Cases
Procedure Volume	13245	114	102			
Procedure Volume, All Years	92453	127	117			
Long-Term Follow-up	12065	87	74			
Discharge Medications	11433	112	99			
Preop Smoking	8968	113	91			
Smoking Cessation	1468	70	36			
TFEM CAS ASYMP: Stroke/Death	307	39	13	284	38	13
TFEM CAS SYMP: Stroke/Death	235	39	6	215	36	6
TCAR ASYMP: Stroke/Death	1450	90	49	1320	89	46
TCAR SYMP: Stroke/Death	600	79	24	551	76	21
CEA ASYMP: Stroke/Death	1341	55	34	1229	54	32
CEA ASYMP: Postop LOS>1 Day	1337	55	33	1225	54	32
CEA SYMP: Stroke/Death	503	47	23	479	47	21
CEA SYMP: Postop LOS>1 Day	498	47	23	474	47	21
EVAR: Postop LOS>2 Days	585	29	21	554	28	21
EVAR: Sac Diameter Reporting	610	28	20			
EVAR: SVS AAA Diameter Guideline	517	28	19			
TEVAR: Sac Diameter Reporting	132	9	6			
OAAA: In-Hospital Mortality	365	20	8	340	20	8
OAAA: SVS Cell-Saver Guideline	363	20	9			
OAAA: SVS Iliac Inflow Guideline	402	20	9			
PVI CLAUD: ABI/Toe Pressure	1399	37	27			
INFRA CLTI: Major Complications	419	18	13			
SUPRA CLTI: Major Complications	126	15	3			
LEAMP: Postop Complications	166	3	3			
HDA: Primary AVF vs. Graft	321	7	6			
HDA: Ultrasound Vein Mapping	393	7	6			
HDA: Postop Complications	393	7	6			
IVCF: Filter Retrieval Reporting	87	5	4			





# INSTITUTIONALIZED MEDIAN ARCUATE LIGAMENT SYNDROME PROTOCOL

Santh Prakash Lanka, M.B.B.S. Mayo Clinic Florida



#### INSTITUTIONALIZED MEDIAN ARCUATE LIGAMENT SYNDROME PROTOCOL

Santh Prakash Lanka, M.B.B.S.<sup>1</sup>, Steven P. Bowers, M.D.<sup>1</sup>, Young Erben, M.D.<sup>1</sup>, Albert G. Hakaim, M.D.<sup>1</sup>, Houssam Farres, M.D.<sup>1</sup>

<sup>1</sup>Department of Surgery, Mayo Clinic Florida

Southeastern Vascular Study Group Regional Fall Meeting 2023 October 27, 2023 Mayo Clinic Florida





#### DISCLOSURES

Nothing to disclose

#### **METHODS**

- 163 patients were recruited from 2001 to 2022
- There were 38 (23.3%) male and 125 (76.7%) female patients
- Mean follow-up duration =  $17.7 \pm 23.4$  months
- Positive outcomes If patient symptoms improved or resolved entirely
- Negative outcomes If patient symptoms remain unchanged or worsening





#### PROTOCOL





#### DEFINITIONS

#### **Positive Protocol Diagnosis**

- Negative GI workup for other causes of abdominal pain

- Positive PMA (provocative mesenteric angiogram "with papaverine")

and/or

Positive CPB (celiac plexus block)



• **Positive PMA** – Reproducible symptoms with papaverine injection into superior mesenteric artery (SMA) and lack of collateralization between the SMA and celiac artery

 Positive CPB – Complete relief of symptoms or symptom relief greater than 24 hours





#### RESULTS



- Shorter median follow-up duration in patients with improved outcomes

Abdominal pain -169.0 days vs 337.0 days, p = 0.003

When adjusted for follow-up duration, protocol positivity still

correlated with improved abdominal pain

Variable	OR (95%CI)	p-value
Relief of Abdominal Pain		
Last Follow Up by 30 Day Increase	0.99 (0.97, 1.01)	0.3131
Protocol positive	3.07 (1.21, 8.14)	0.0199



#### Limitations

- Retrospective study
- Subjective outcome variables (abdominal pain and nausea)
- Shorter follow-up duration in patients with improved outcomes –

probability of attrition bias

#### CONCLUSION

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- Adherence to a diagnostic protocol correlates with higher chances of improved abdominal pain relief
- Employing a protocol allowed for better selectivity of the patients for surgery



# **THANK YOU**

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#### **Regional Quality Improvement Topics**



- ABI/Toe Pressure
  - Charter developed Spring 2023
- HDA/AVF
- IVC/Venous

#### **CE/CME Meeting Attendance Credit**

7 days to submit; No email reminder



**PUT** your FULL NAME in Zoom for remote attendees. Record of meeting attendance is required for CME/CE credit (no exceptions will be made)



**SEND** an email to achurilla@svspso.org with names of group members that are sharing 1 device



SVU

SVS Society for Vascular Surgery



#### https://dmu.co1.qualtrics.com/jfe/form/SV\_eLhwmCCo



# **Regional Meeting CME/CE Credit**



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Des Moines University is the continuing education provider for this activity.



The attendance roster will be cross-referenced with those applying for CME/CE. Sign in correctly.



Each participant **MUST COMPLETE BOTH** the <u>attendance attestation</u> and the <u>meeting evaluation</u> from the URL site – one form.



You will have 7 days from the date of the meeting to complete the forms and **SUBMIT.** 



Approximately 14 days from the meeting, Des Moines University will email you instructions on how to access your certificate.



PSO leadership is providing continuing education credit to you at no charge!



### **Committee Updates**



#### AQC Update

#### Emily Spangler, MD

- Committee meets every other month
  - Jan, March, May.....
- Re-engagement of registry committees
  - New reporting measures for ea. registry
  - Review of variables for possible retirement
  - One committee each Mtg. will give progress update
- Review & discussion of proposed registry revisions
  - LE/VMC SET variables to align w/guidelines
  - Pilot ERAS Variables
  - Initial discussion of required vs nonrequired procedure variables


## VQC Update

## Olamide Alabi, MD

- Committee meets bi-annually
- Re-engagement of registry committees
  - New reporting measures for each registry
  - Review of variables for possible retirement
  - Each committee will give updates during the VQC meetings
- Active review of Venous Stent to decrease registry burden
- Discussion on how to increase venous registry presence w/in the venous community
- Next Meeting VEITH (hybrid)
  - November 12-17, 2023



## **Arterial RAC Update**

### Susan Shafii, MD

- The proposal review committee meets quarterly
- Comprises of all RAC chairs nationally and some other members
- Reviews about 20-30 abstracts each cycle
- The process is fair and open with the aim of approving most proposals
- The committee advises investigators on how to improve the proposals



## **Arterial RAC**

- When requesting a Data Set, the investigator must have an ACTIVE PATHWAYS account.
- Once approved, the Data Set will be transferred through the "SHARE a FILE" function in PATHWAYS.



• The Data Set will be available through "Share a File" for 30 days



## **Arterial RAC**

• Components of a VQI proposal.

## • For more information:

 Podcast: Requesting Data presented by Dr. Leila Mureebe, MD

https://drive.google.com/file/d/1tBsYrzh0Pu-Oz5gu\_eHhMmrVvyEtk5i2/view

### Abstract

- Research question/Hypothesis
- Background/significance

SVS

- Approach
- Analytic plan
- Mock Tables
- Potential problems/solutions
- IRB approval/exemptions.



## **RAC Data Use Agreement**



## The Data Use Agreement needs to be signed by the <u>Attending</u> <u>Physician</u> when submitting in Abstract 123

https://abstracts123.com/svs1/

#### Data Use Agreement

#### Data Use Agreement

Below are the terms of the Data Use Agreement for the Society for Vascular acknowledging the terms below.

The Recipient shall not use or further disclose the data set other than as required to complete T
 The Recipient shall allow access to the data only to individuals directly accountable to the Recipient
 The Recipient shall use appropriate safeguards to prevent use or disclosure of the data set oth
 The recipient agrees that this study must be approved by the IRB of the institution that takes ret
 Upon completion of the project, or should this Agreement be terminated for any reason, includin
 The Recipient agrees to present or publish approved project within 24 months with one refresh
 I acknowledge I have read and understood the Data Use Agreement.
 I have received approval from my regional RAC, only applicable for those regions that *(required answer)* Signature:

## **RAC Proposal Process**



## **1.** Review list of projects:

https://www.vqi.org/data-analysis/racapproved-project-search/

2. Submit proposal online:

http://abstracts123.com/svs1/meetinglogin

3. Deadlines for submissions:

https://www.vqi.org/svs-vqi-national-arterialrac-schedule/  Your Regional RAC chair is available to help answer questions or help with proposal writing

## Venous RAC Update

- The July Venous RAC had 4 venous proposals submitted
- Podcast: Requesting Data presented by Dr. Leila Mureebe, MD. Follow link below
  - <u>https://drive.google.com/file/d/1tBsYrzh0Pu-0z5gu\_eHhMmrVvyEtk5i2/view</u>
- The current venous registries with blinded data sets
  - Varicose Vein
  - IVC Filter
- Types of information available:
  - Demographics
  - Comorbidities
  - Operative characteristics
  - Post-operative characteristics
  - Follow-up



## Governing Council Update

## Young Erben, MD

- Meets twice a year
- Last meeting: June 16, 2023
- Committee designation:
  - Each region represented by the Regional Lead Medical Directors
- Adam Beck newly appointed GC Chair; Grace Wang – newly appointed Vice Chair
- All Regional RAC requests must have regional RAC approval; committee highly recommends that the Regional RAC also approve national requests
- Next meeting VEITH; November 2023





# Updates for Fall 2023 VQI Regional Meetings



## 2023 Technology Updates for VQI



## Released in Q1 2023



- TEVAR Fenestration Treatment Minor Revision
  - "Fenestration Type", a new field was added to the nine different branches in the branches tab
- CAS Minor Revision
  - Modified the "Approach" field and dependencies
  - Updated "Lesion 2 Side" to auto-populate the value entered for "Lesion 1 Side"
- PVI Minor Revision
  - The PVI registry was modified to align with changes made during the INFRA/ SUPRA major revision
- Infra-inguinal Bypass and Supra-inguinal Bypass Revision
  - Major revisions were made to the lower extremity bypass registries

## Released in Q1 2023



### Same Registry Cloning for Infra/Supra-inguinal Bypass

• The ability to copy data from existing procedure records to a new procedure record for the same patient and registry has been added



## Released in Q1 2023



### Follow-up Outcome Report Drilldowns

- Drilldown option has been provided to list the PRIMRPCID for procedures included in the calculator for My Center. This option is available for outcomes employing Mean/ STD and Median/IQR calculations.
- Outcomes reports impacted include:
  - CEA
  - HDA
  - VV

CE	A Followsup Outcomes Report	iust now 🖓	- :
F	ollow-Up Rate	<u> </u>	×
CI	A PDT (7 Filters) 🗸		
	PRIMPROCID		
1	2559725		
2	2561458		

## Released in Q2 2023

### Help Text

• Enhancement to highlight fields with recently updated help text to alert abstractors to revised definitions

### Support Tab Enhancements

- Addition of "Useful Links" section
- "Training Schedule" page has been renamed to "Upcoming Trainings"
- "Video Library" added on the Support tab





## Released in Q2 2023

### **Physician Snapshot Report**

- Introduced new Carotid Physician Snapshot Report.
  - New report privilege added to the Users and Permissions Report



← Home Reporting Analytics & Reporting Engine Physician Snapshot Report

Tivos

Follow-up Outcomes Repo... V CP.

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## Released in Q2 2023



### **Claims Validation**

 Sort by Response Provided in the Unmatched Claims – You can now sort or filter the "Unmatched Claims" report by the Response column





## PATHWAYS Support



## PATHWAYS Support

#### Need help?

Check out the PATHWAYS Support tab.

- Documents List of essential documents necessary for new staff and experienced abstractors to assist with data abstraction.
- Release Notes Listing of release announcements highlighting changes and improvements to the registries.
- Upcoming Trainings— List of upcoming training opportunities with registration links for new staff and experienced abstractors.
- Video Library Listing of video tutorials to help you learn at your convenience.





## **PATHWAYS** Support Updates



#### Announced in the spring:

PATHWAYS Hospital Manager Guide

- Added to the Resources Tab
- Helps users better understand role responsibilities

#### **NEW announcement:**

#### PATHWAYS Administrative Training Video

- Added to the Support Tab Video Library
- Provide even more support to assist new centers and new HMs
- In beta > we welcome feedback on its usefulness during onboarding

## **PATHWAYS** Support Updates



#### **Claims Validation**

#### **Recent news:**

- The **2022** Claims Validation process was launched in April 2023 and closed in July
- Powerful testimonials about ROI projects during VQI at VAM
  - Direct result of the claims validation audit
- This process can provide even more centers with opportunities to expose revenue leakage and mitigate financial loss (a great opportunity to WOW your administrative team)

#### Up next:

We are looking forward to launching the **2023** Claims Validation cycle in the **Spring of 2024**!



## **Coming Soon**

The Support Team continues to develop brief training videos to assist with specific functionality and tasks.

We appreciate feedback we received during our recent VQI@VAM Support Update webinar. We will be sure to use this information for future development!

## PATHWAYS Support – A Closing Note



A friendly reminder...

The following registries are all available in VQI. Reach out to our Sales team for assistance with additional VQI registry opportunities at your center.

Carotid Artery Stent Carotid Endarterectomy Endovascular AAA Repair Hemodialysis Access Infra-Inguinal Bypass IVC Filter Lower Extremity Amputations Open AAA Repair Peripheral Vascular Intervention Supra-Inguinal Bypass Thoracic and Complex EVAR Varicose Vein Vascular Medicine Consult Venous Stent



## **Registry Projects**



## SVS Post-Market Surveillance Projects



- The following projects are conducted within the SVS PSO, and only nonidentifiable data (removal of patient, center and physician information) will be provided to Medtronic/BARD/Cook/Gore or the FDA. Only standard of care practice is being evaluated. For such PSO activities, patient informed consent and Institutional Review Board review are not required.
- Sites must follow their institutional guidelines.

## **TEVAR Dissection Surveillance Project**



- The SVS PSO is excited to announce the continuation of the TEVAR Dissection Surveillance Project to evaluate the Cook Zenith Dissection Endovascular System.
   FDA approval was granted for this device after safety and effectiveness were demonstrated in pre-market studies of complicated dissection with the proviso that the efficacy of TEVAR treatment of descending aortic dissection would be more fully analyzed through post-market surveillance, as was done through VQI for the W. L. Gore and Medtronic devices after their approval.
- Patients will have 30 day, and annual visits for 5 years.
- Total reimbursement of \$4,000 per patient for a patient followed annually for 5 years.

For enrollment information: Sarah Van Muyden | sarah.vanmuyden@fivoshealth.com

## TEVAR Dissection Surveillance Project – Cook Only



- 122 of the 180 required patients enrolled (14 potential cases in process)
- 60 Chronic Cases Enrolled Enrollment Complete
- 62 Acute Cases Enrolled Currently -52% of total Acute Cases Enrolled
- Retrospective enrollment allowed- All eligible cases from December 31, 2018 (protocol FDA approval date)
- (76) 30-Day visits completed, (66) 1-year follow-up visits completed, (40) 2-year follow-up visit completed and (12) 3-year follow up visits completed
- 28 sites currently participating
- This project is conducted within the SVS PSO and only non-identifiable data (removal of patient, center and physician information) will be provided to Cook or the FDA. Only standard of care practice is being evaluated. For such PSO activities, patient informed consent and Institutional Review Board review are not required.





Gore is collaborating with the Society for Vascular Surgery Vascular Quality Initiative (VQI) to collect data and images from the **TEVAR** registry for a 10-year follow-up project.

Project Objective: To ensure that the clinical outcomes during the commercial use of the GORE® TAG® Thoracic Branch Endoprosthesis are as anticipated.

Patient Population: Patients who undergo treatment with the GORE<sup>®</sup> TAG<sup>®</sup> Thoracic Branch Endoprosthesis device.

Number of Patients

- Max number of patients: 350
- Start Date 01/15/2023



## About the Gore TBE Project



Project specific dynamic content has been added to the TEVAR registry. Project Timeline:

- Phase I: Start-up, development, enrollment (3 years) Current Phase
- Phase II: Surveillance period (10 years)
- Total expected duration of the project: (13 years)

Project Imaging Requirements: Procedure + 1 Month + Annually



### Gore TBE Project



- 23 fully executed addendums
- 22 sites full trained
- Current enrollment as of 8/14/23 = 58 patients

For enrollment information: Megan Henning megan.henning@fivoshealth.com





## Please contact <u>PATHWAYSSUPPORT@fivoshealth.com</u> for questions

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# Spring 2024 Regional Meeting

• Spring 2024?



## **Fall Report Reminder**



## Reminder: Spring 2024 Report Cut Date = February 1, 2024, for procedures CY 2023

## **CE/CME Meeting Attendance Credit**

7 days to submit; No email reminder



**PUT** your FULL NAME in Zoom for remote attendees. Record of meeting attendance is required for CME/CE credit (no exceptions will be made)



**SEND** an email to Angela Churilla achurilla@svspso.org with names of group members that are sharing 1 device



SVU

SVS Society for Vascular Surgery



#### https://dmu.co1.qualtrics.com/jfe/form/SV\_eLhwmCCo





 Thank you to our members for your continued participation and support of VQI





- Thank you to COOK and GORE for your contributions and making these meetings possible
- Thank you to Des Moines University for providing CE/CME credit for today's meeting



# Thank You

