WELCOME

NORTHERN CALIFORNIA VASCULAR STUDY GROUP

October 28, 2023 9am – 12pm PT Stanford, CA 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 the 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.



Please Identify Yourself



Please provide your full name before we begin our data review.

Those that do not, you will be removed from the call due to compliance requirements.





Thank you to everyone who helped make this event possible:

Shipra Arya, MD - Regional Medical Director Misty Humphries, MD - Regional Associate Medical Director Carlos Moreno - Regional Lead Data Manager Kaity Sullivan - SVS PSO Analytics Team Angela Churilla - SVS PSO Education & Quality Manager Jennifer Correa – SVS PSO Marketing Manager SVS PSO Staff Northern California Vascular Study Group Fall 2023 Regional Meeting



Northern California Vascular Study Group

Fall 2023 Regional Meeting

Saturday, October 28, 2023 9:00am-12:00am PT Stanford School of Medicine Campus, Conference Room 204 Li Ka Shing Center, 291 Campus Drive, Stanford, CA 94305 and Remote via Zoom

Agenda

Item	Description	Presenter
I.	Welcome and Introductions	Shipra Arya, MD
II.	Regional Data Review	Shipra Arya, MD
III.	National VQI Update	Caroline Morgan Director Clinical Operations, SVS PSO
IV.	AQC Update	Shipra Arya, MD
V.	VQC Update	Eri Fukaya, MD
VI.	RAC Update	James Iannuzzi, MD
VII.	Governing Council Update	Shipra Arya, MD
	Break	
VIII.	Presentations:	
	"Frailty screening and optimization pathway"	Shipra Arya, MD Stanford Health Care
	"Risk of Reintervention is Lower for Carotid Endarterectomy than Carotid Artery Stenting"	Shaunak Adkar, MD Stanford Health Care
IX.	Meeting Evaluation/Next Meeting Date	
X.	Adjourn	

Data Managers meeting will follow main meeting

Disclosures

Dr. Shipra Arya, MD Gore Dr. Misty Humphries, MD Shockwave Medical Gore





Welcome and Introductions

American Venous Forum TIVOS Osciety for Vascular Medicine SVU

Adventist Health St. Helena Alta Bates Summit Medical Center California Pacific Medical Center **Community Regional Medical Center** Eden Medical Center **El Camino Health** Fresno Heart & Surgical Hospital Good Samaritan Hospital - San Jose Marin General Hospital Memorial Medical Center - Modesto NorthBay Medical Center Palo Alto Medical Foundation Redwood City - Sequoia Hospital San Bernardino - St. Bernardine Medical Center San Luis Obispo - French Hospital Medical Center Santa Clara Valley Medical Center Santa Cruz - Dominican Hospital Santa Rosa Memorial

Society for Vascular Surgery St. Joseph Hospital (Eureka) Stanford Health Care Stanford Health Care-TriValley Stockton - St. Joseph's Medical Center Sutter Medical Center Sacramento Sutter Roseville Medical Center UC Davis Health System UCSF Medical Center Washington Hospital Health System



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.



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.</p>
- 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	[8 21 51 149 300]	[6 20 68 214 395]
	Procedure Volume, All Years	[8 30 120 812 2491]	[15 58 251 1208 3307]
Multiple	Long-Term Follow-up	75.1% [41 69 78 85 93]	71.3% [0 42 74 89 96]
	Discharge Medications	88.1% [78 83 95 97 100]	87.1% [75 83 91 98 100]
	Preop Smoking	17.1% [7 13 17 20 24]	29.6% [7 18 26 35 44]
	Smoking Cessation	41.4% [0 21 47 78 100]	31.7% [0 19 31 44 67]
TFEM CAS ASYMP	Stroke/Death	0% [0 0 0 0]	1.6% [0 0 0 2]
TFEM CAS SYMP	Stroke/Death	2.8% [0 0 0 20]	4.3% [0 0 0 0 13]
TCAR ASYMP	Stroke/Death	1.2% [0 0 0 0 0	0.9% [0 0 0 0 2]
TCAR SYMP	Stroke/Death	1.1% [0 0 0 0]	2% [0 0 0 6]
CEAASYMP	Stroke/Death	0.4% [0 0 0 0 0]	0.8% [0 0 0 3]
	Postop LOS>1 Day	21.8% [4 12 27 40 50]	22.2% [0 12 22 35 50]
CEA SYMP	Stroke/Death	2.7% [0 0 0 8]	1.7% [0 0 0 8]
	Postop LOS>1 Day	40.9% [3 17 50 63 96]	42.5% [0 25 41 60 80]
EVAR	Postop LOS>2 Days	18.5% [0 0 12 21 27]	15.4% [0 8 14 21 32]
	Sac Diameter Reporting	62.7% [44 58 60 81 91]	58.1% [0 34 63 80 89]
	SVS AAA Diameter Guideline	76.8% [50 62 75 86 89]	75.5% [50 66 75 86 100]
TEVAR	Sac Diameter Reporting	69.5% [70 81 100 100 100]	57% [0 33 59 81 100]
OAAA	In-Hospital Mortality	2.5% [0 0 0 2 18]	4% [0 0 0 8 17]
	SVS Cell-Saver Guideline	92.9% [79 83 92 99 100]	93.1% [75 89 97 100 100]
	SVS Iliac Inflow Guideline	96.8% [97 100 100 100 100]	98.3% [93 98 100 100 100]
PVI CLAUD	ABI/Toe Pressure	77.9% [62 67 86 92 98]	67.4% [17 50 74 89 100]
INFRA CLTI	Major Complications	3.9% [0 0 0 6 8]	4.8% [0 0 3 7 12]
SUPRA CLTI	Major Complications	22.2% [0 0 25 29 71]	7.3% [0 0 0 12 27]
LEAMP	Postop Complications	NA (<3 centers)	11.8% [0 5 10 16 19]
HDA	Primary AVF vs. Graft	NA (<3 centers)	82% [61 74 83 89 96]
	Ultrasound Vein Mapping	NA (<3 centers)	87.9% [66 83 90 97 100]
	Postop Complications	NA (<3 centers)	1.4% [0 0 0 2 5]
IVCF	Filter Retrieval Reporting	NA (<3 centers)	49.8% [0 36 50 67 80]

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)	352	23334
CEA	396	19076
EVAR	153	8085
HDA	NA (<3 centers)	5660
INFRA	145	7272
IVCF	NA (<3 centers)	1006
LEAMP	NA (<3 centers)	3670
OAAA	21	1348
PVI	812	50854
SUPRA	45	2032
TEVAR	176	3849
Varicose Veins	NA (<3 centers)	6196
Overall (July 2022-June 2023)	2208	132382
Overall (July 2021-June 2022)	1831	127080

Procedure Volume by Center





Centers (centers with <10 cases not shown)

18 of 21 centers displayed

Procedure Volume by Region



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)	1170	102290
CEA	2061	196769
EVAR	1078	80848
HDA	NA (<3 centers)	75884
INFRA	1146	81473
IVCF	NA (<3 centers)	18296
LEAMP	NA (<3 centers)	28881
OAAA	247	17850
PVI	5686	379671
SUPRA	343	25862
TEVAR	1081	28950
Varicose Veins	NA (<3 centers)	61876
Overall	15850	1098650

Procedure Volume by Center, All Years





Procedure Volume by Center in Your Region (July 2022-June 2023)

Centers (centers with <10 cases not shown)

19 of 22 centers displayed

Procedure Volumes, All Years by Region





Procedure Volume Across VQI (Through June 2023)

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

Physician Specialties Across all VQI





Physician Specialties Across VQI (as of July 31, 2023, N=6880 Physicians)

Physician Specialties, Your Region



Physician Specialties

Physician Specialties Across Your Region (as of July 31, 2023, N=136 Physicians)



Long-term Follow-up



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	182 (75%)	15193 (70%)
CEA	205 (70%)	18765 (74%)
EVAR	79 (68%)	7931 (73%)
HDA	NA (<3 centers)	7610 (70%)
INFRA	111 (77%)	7724 (75%)
IVCF	NA (<3 centers)	1587 (74%)
LEAMP	NA (<3 centers)	3303 (70%)
OAAA	25 (84%)	1362 (76%)
PVI	666 (79%)	45136 (70%)
SUPRA	31 (65%)	2071 (75%)
TEVAR	106 (68%)	3112 (69%)
Overall (July 2020-June 2021)	1456 (75%)	113794 (71%)
Overall (July 2019-June 2020)	1268 (75%)	102251 (76%)

LTFU By Year



Long-Term Follow-Up by Year



LTFU By Region



Long-Term Follow-Up by Center in Your Region (July 2020-June 2021)



Index Medical Center Name

1	Fresno Heart & Surgical Hospital
2	Palo Alto Medical Foundation
3	Stockton - St. Joseph's Medical Center
4	UC Davis Health System
5	Redwood City - Sequoia Hospital
6	Washington Hospital Health System
7	Stanford Health Care
8	UCSF Medical Center
9	Santa Rosa Memorial
10	El Camino Health
11	Marin General Hospital

11 of 17 centers displayed

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





100% 75% 50% 25% 0% Carolinas* Michigan* Michigan* Mid-America* Nor. Cal.* Nor. Cal.* Nor. Cal.* Nor. Cal.* SoVONet* So. Cal.* Virginias* G. Lakes* Others* Canada* MidSouth* Rocky Mtns.* Southeast* Up. Midwest*

Long-Term Follow-Up by Region Across VQI (July 2020-June 2021)

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

Discharge Medications



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	1989	86%	8%	5%	1%
VQI Overall	112903	87%	8%	3%	2%

Discharge Medications



Discharge Antiplatelet+Statin by Year



Discharge Medications By Center





Centers (centers with <10 cases not shown)

Discharge Medications By Region





Discharge Antiplatelet+Statin by Region Across VQI (July 2022-June 2023)

12×13 Indicates region's rate differs significantly from the VQI rate.

Preop Smoking



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	257 (15%)	18540 (23%)
CEA	321 (10%)	16116 (24%)
EVAR	125 (18%)	6749 (32%)
INFRA	113 (24%)	5487 (39%)
LEAMP	NA (<3 centers)	1545 (26%)
OAAA	15 (27%)	981 (43%)
PVI	617 (18%)	39806 (32%)
SUPRA	31 (26%)	1526 (53%)
TEVAR	124 (26%)	2720 (29%)
Overall (July 2022-June 2023)	1603 (17%)	93470 (30%)

Preop Smoking





🔶 VQI Overall 🔶 Your Region

Preop Smoking By Center





Preop Smoking by Center in Your Region (July 2022-June 2023)

Centers (centers with <10 cases not shown)

15 of 21 centers displayed

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

Preop Smoking Across VQI





Preop Smoking by Region Across VQI (July 2022-June 2023)

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

Smoking Cessation



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.

	Your Region	VQI Overall
CAS	21 (48%)	2437 (34%)
CEA	12 (50%)	3400 (31%)
EVAR	15 (40%)	1746 (29%)
HDA	NA (<3 centers)	582 (32%)
INFRA	19 (32%)	2241 (35%)
LEAMP	NA (<3 centers)	466 (33%)
OAAA	NA (<3 centers)	431 (39%)
PVI	76 (41%)	9090 (29%)
SUPRA	8 (12%)	787 (34%)
TEVAR	19 (53%)	593 (43%)
Overall (July 2020-June 2021)	174 (41%)	21773 (32%)

Smoking Cessation By Year



Smoking Cessation by Year



VQI Overall -

Your Region

Smoking Cessation By Center









6 of 11 centers displayed

**" Indicates center's rate differs significantly from the regional rate.
Smoking Cessation Across VQI





Smoking Cessation by Region Across VQI (July 2020-June 2021)

Indicates region's rate differs significantly from the VQI rate. $\approx 2^{10}$

TFEM CAS ASYMP: Stroke/Death



10 Centers with <10 cases

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	54	2742
Observed rate of stroke or death among procedures meeting inclusion criteria	0%	1.6%
Number of procedures with complete data*	48	2483
Observed rate of stroke or death among cases with complete data	0%	1.6%
Expected Rate of stroke or death among cases with complete data	1.8%	NA
P-value for comparison of observed and expected rates	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.

TFEM CAS ASYMP: Stroke/Death





Stroke or Death after TFEM CAS for Asymptomatic Patients by Year

TFEM CAS SYMP: Stroke/Death



9 Centers with <10 cases

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	36	2923
Observed rate of stroke or death among procedures meeting inclusion criteria	2.8%	4.3%
Number of procedures with complete data*	33	2698
Observed rate of stroke or death among cases with complete data	3%	4%
Expected Rate of stroke or death among cases with complete data	3.6%	NA
P-value for comparison of observed and expected rates	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.

TFEM CAS SYMP: Stroke/Death



Stroke or Death after TFEM CAS for Symptomatic Patients by Year





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	83	9313
Observed rate of stroke or death among procedures meeting inclusion criteria	1.2%	0.9%
Number of procedures with complete data*	77	8681
Observed rate of stroke or death among cases with complete data	1.3%	0.9%
Expected Rate of stroke or death among cases with complete data	1.4%	NA
P-value for comparison of observed and expected rates	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.



Stroke or Death after TCAR for Asymptomatic Patients by Year







Centers (centers with <10 complete cases not shown)

3 of 14 centers displayed

Rates shown are among cases with complete data.

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



Stroke or Death after TCAR for Asymptomatic Patients by Region Across VQI (July 2022-June 2023)



Rates shown are among cases with complete data.

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



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	88	4412
Observed rate of stroke or death among procedures meeting inclusion criteria	1.1%	2%
Number of procedures with complete data*	83	4153
Observed rate of stroke or death among cases with complete data	1.2%	2%
Expected Rate of stroke or death among cases with complete data	2.5%	NA
P-value for comparison of observed and expected rates	0.73	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.



Stroke or Death after TCAR for Symptomatic Patients by Year





Stroke or Death after TCAR 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.

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

⁴ of 12 centers displayed



Stroke or Death after TCAR for Symptomatic Patients by Region Across VQI (July 2022-June 2023)



Rates shown are among cases with complete data.

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



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	228	11194
Observed rate of stroke or death among procedures meeting inclusion criteria	0.4%	0.8%
Number of procedures with complete data*	207	10450
Observed rate of stroke or death among cases with complete data	0.5%	0.8%
Expected Rate of stroke or death among cases with complete data	0.8%	NA
P-value for comparison of observed and expected rates	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.



Stroke or Death after CEA for Asymptomatic Patients by Year





2.5%-2.0%-1.5%-1.0%-0.5%-

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



Rates shown are among cases with complete data.

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

⁹ of 15 centers displayed





Rates shown are among cases with complete data.

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



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	225	11142
Observed rate of LOS>1 day among procedures meeting inclusion criteria	21.8%	22.2%
Number of procedures with complete data*	204	10402
Observed rate of LOS>1 day among cases with complete data	20.1%	21.7%
Expected Rate of LOS>1 day among cases with complete data	23.4%	NA
P-value for comparison of observed and expected rates	0.28	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.



Postop LOS>1 Day after CEA for Asymptomatic Patients by Year





Postop LOS>1 Day after CEA for Asymptomatic Patients in Your Region (July 2022-June 2023)



Centers (centers with <10 complete cases not shown)

9 of 15 centers displayed

Rates shown are among cases with complete data.

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



Postop LOS>1 Day after CEA for Asymptomatic Patients by Region Across VQI (July 2022-June 2023)



Rates shown are among cases with complete data.

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



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	111	5245
Observed rate of stroke or death among procedures meeting inclusion criteria	2.7%	1.7%
Number of procedures with complete data*	102	4994
Observed rate of stroke or death among cases with complete data	2.9%	1.8%
Expected Rate of stroke or death among cases with complete data	1.7%	NA
P-value for comparison of observed and expected rates	0.26	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.





Stroke or Death after CEA for Symptomatic Patients by Year

VQI Overall Your Region





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



3 of 15 centers displayed

Rates shown are among cases with complete data.

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



(July 2022-June 2023) 3.5% 3.0% 2.5% 2.0% 1.5% 1.0% 0.5% 0.0% SoVONet MidSouth New York Canada Michigan Midwest* ğ G. Lakes Carolinas Virginias Nor. Cal. Rocky Mtns. Mid-America Southeast Up. Midwest* Pacific NW ew England Mid-Atlantic

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

Rates shown are among cases with complete data.

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

Stroke or Death after CEA for Symptomatic Patients by Region Across VQI



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	110	5212
Observed rate of LOS>1 day among procedures meeting inclusion criteria	40.9%	42.5%
Number of procedures with complete data*	101	4961
Observed rate of LOS>1 day among cases with complete data	38.6%	42.3%
Expected Rate of LOS>1 day among cases with complete data	41.7%	NA
P-value for comparison of observed and expected rates	0.55	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.



Postop LOS>1 Day after CEA for Symptomatic Patients by Year





Postop LOS>1 Day after CEA for Symptomatic Patients in Your Region (July 2022-June 2023)



Centers (centers with <10 complete cases not shown)

3 of 15 centers displayed

Rates shown are among cases with complete data.

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



Postop LOS>1 Day after CEA for Symptomatic Patients by Region Across VQI (July 2022-June 2023)



Rates shown are among cases with complete data.

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



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	139	7516
Observed rate of LOS>2 days among procedures meeting inclusion criteria	16.5%	15.4%
Number of procedures with complete data*	123	6862
Observed rate of LOS>2 days among cases with complete data	18.7%	15.4%
Expected Rate of LOS>2 days among cases with complete data	20.1%	NA
P-value for comparison of observed and expected rates	0.82	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)

5 of 9 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

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	75	7264
Percentage with sac diameter reported between 9 and 21 months post-procedure	62.7%	58.1%

EVAR: Sac Diameter Reporting



EVAR Sac Diameter Reporting by Year



EVAR: Sac Diameter Reporting



EVAR Sac Diameter Reporting in Your Region (July 2020-June 2021)



Index	Medical Center Name
1	UC Davis Health System
2	Redwood City - Sequoia Hospital
3	UCSF Medical Center
4	Stanford Health Care

4 of 7 centers displayed

"*" Indicates center's rate differs significantly from the regional rate.
EVAR: Sac Diameter Reporting





EVAR Sac Diameter Reporting by Region Across VQI (July 2020-June 2021)

**" 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 \geq 5 cm for Women and \geq 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	125	6684
Percentage meeting SVS AAA diameter guideline	76.8%	75.5%





EVAR SVS AAA Diameter Guideline by Year

VQI Overall Your Region





EVAR SVS AAA Diameter Guideline in Your Region (July 2022-June 2023)



6 of 9 centers displayed

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





EVAR SVS AAA Diameter Guideline by Region Across VQI

Indicates region's rate differs significantly from the VQI rate. 하숫자

TEVAR: Sac Diameter Reporting



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	59	1582
Percentage with sac diameter reported between 9 and 21 months post-procedure	69.5%	57%

3 Centers with <10 cases

TEVAR: Sac Diameter Reporting



TEVAR Sac Diameter Reporting by Year



OAAA: In-Hospital Mortality

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.

	Your Region	VQI Overall
Number of OAAA procedures meeting inclusion criteria	80	4763
Observed rate of In-Hospital Mortality among procedures meeting inclusion criteria	2.5%	4%
Number of procedures with complete data*	76	4470
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	5.1%	NA
P-value for comparison of observed and expected rates	0.59	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 Centers with <10 cases

OAAA: In-Hospital Mortality





In-Hospital Death after OAAA by Year

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

Rates shown are observed rates among cases meeting inclusion criteria.





6 Centers with <10 cases

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	85	4782
Percentage meeting SVS cell-saver guideline	92.9%	93.1%

OAAA: SVS Cell-Saver Guideline



OAAA Cell-Saver Guideline by Year







6 Centers with <10 cases

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	94	5389
Percentage meeting SVS iliac inflow guideline	96.8%	98.3%

OAAA: SVS Iliac Inflow Guideline



OAAA Iliac Inflow Guideline by Year





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	231	17092
Percentage with ABI/toe pressure assessment	77.9%	67.4%



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	231	17092
Percentage with ABI/toe pressure assessment	77.9%	67.4%



ABI/Toe Pressure Assessment before PVI for Claudication by Year









7 of 8 centers displayed

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

ABI/Toe Pressure Assessment before PVI for Claudication in Your Region



ABI/Toe Pressure Assessment before PVI for Claudication by Region Across VQI (July 2022-June 2023)



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

INFRA CLTI: Major Complications



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	103	5377
Percentage with major complications	3.9%	4.8%

INFRA CLTI: Major Complications



Major Complications after INFRA for CLTI by Year



VQI Overall Your Region

INFRA CLTI: Major Complications





Major Complications after INFRA for CLTI in Your Region (July 2022-June 2023)

Centers (centers with <10 cases not shown)

5 of 7 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)



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



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	18	1266
Percentage with major complications	22.2%	7.3%

SUPRA CLTI: Major Complications



Major Complications after SUPRA for CLTI by Year 20% 15% 10% 5% 0% -July 2020-June 2021 July 2021-June 2022 July 2019-June 2020 July 2022-June 2023





Group Discussion on Regional QI Project

Active Regional Charters



Regions with Charters n=58



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 W American Chicago Society for Vascular Medicine Vascular Medicine



October 28, 2023 - Northern California



VQI National Update

Caroline Morgan, RN Director Clinical Operations, SVS PSO



VQI Participation

Canadian Vascular Quality Initiative

(VOICE)

AK



Puerto Rico

SVS VQI

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

Procedures Captured



TOTAL PROCEDURES CAPTURED (as of 10/1/2023)	1,153,531
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

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</u> attestation 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!



2023 VQI@VAM Wrap Up

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- Recordings & slides available on the VQI@VAM Planner
 - Log into the Planner https://2023svsvam.eventscribe.net/
 - 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.

Society for Vascular Surgery "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



SVS VQ

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
 - \circ 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







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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

 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>





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 NCVSG Participation Award Winners





Stanford Health Care Stanford Health Care-Valley Care UC Davis Health System



UCSF Medical Center Stockton - St. Joseph's Medical Center Palo Alto Medical Foundation Santa Cruz - Dominican Hospital



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 2023
- Webinars
 - July and August (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 – 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

Committee Updates



AQC Update

(open)

- 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

Eri Fukaya, 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

James Iannuzzi, 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

(open)

- 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-Oz5gu_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

Shipra Arya, 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



Presentation

Dr. Shipra Arya, MD Stanford Health Care Frailty Screening and Optimalization Pathway



Implementation of Preoperative Frailty Screening and Optimization Pathway in Vascular Surgery Clinic Setting

Shernaz S. Dossabhoy, MD, MBA, Stephanie Rose Manuel, Farishta Yawary, MBA, Tara Lahiji-Neary, MBA, Nathalie Cheng, MS, Lisa Cianfichi, MSN, Ani Bagdasarian, MSN, MPH, Elizabeth L. George, MD, MSc, Julianna G. Marwell, MD, Jason T. Lee, MD, Ronald L. Dalman, MD, Cliff Schmiesing, MD, Shipra Arya, MD, SM

From the Division of Vascular Surgery, Department of Surgery; Department of Anesthesia; Section of Geriatric Medicine, Department of Medicine, Stanford University School of Medicine and Stanford Health Care, Stanford, CA

September 11, 2023, Western Vascular Annual Meeting





Disclosures

- S.D. is supported by the Stanford Health Services Research Training Program from the Agency for Healthcare Research and Quality (AHRQ), grant number T32HS026128, and by the 2023 Enright Family Postdoctoral Research Scholar Initiative.
- S.A. is a consultant for WL Gore.
- The remaining authors have no personal financial disclosures related to this presentation.
- This project was supported by Stanford Healthcare The Improvement Capability
 Development Program (ICDP)

Background

• Frailty is characterized by reduced physiologic reserve and vulnerability to adverse events in the presence of a stressor (e.g., surgery)



RISK ANALYSIS INDEX (RAI) Surgical frailty screening tool



Figure 1. Domains of frailty captured by the Risk Analysis Index

Background

JAMA Surgery | Original Investigation

Association of a Frailty Screening Initiative With Postoperative Survival at 30, 180, and 365 Days

Daniel E. Hall, MD, MDiv, MHSc; Shipra Arya, MD, SM; Kendra K. Schmid, PhD; Mark A. Carlson, MD;

Pierre Lavedan, MD; Tra Thomas G. Lynch, MD, N

JAMA Surgery | Original Investigation | ASSOCIATION OF VA SURGEONS

Association of Routine Preoperative Frailty Assessment With 1-Year Postoperative Mortality

With 1-Year Postoperative Mortality Patrick R. Varley, MD, MSc; Dan Buchanan, MS; Andrew Bilderback, MS; Mary Kay Wisniewski, MT, MACom; Jason Johanning, MD; Joel B. Nelson, MD; Jonas T. Johnson, MD; Tamra Minnier, MSN, RN; Daniel E. Hall, MD, MDiv, MHSc tsurgical follow-up (22 722 ncluded (mean [SD] age, 56.7 ore, and operative case mix, as e periods. After BPA

Joel B. Nelson, MD; Jonas T. Johnson, MD; Tamra Minnier, MSN, RN; Daniel E. Hall, MD, MDiv, MHSc

implementation, the proportion of train patients referred to a primary care physician and

presurgical care clinic increased significantly (9.8% vs 24.6% and 1.3% vs 11.4%, respectively; both P < .001). Multivariable regression analysis demonstrated an 18% reduction in the odds of 1-year mortality (0.82; 95% CI, 0.72-0.92; P < .001). Interrupted time series models demonstrated a significant slope change in the rate of 365-day mortality from 0.12% in the preintervention period to -0.04% in the postintervention period. Among patients triggering the BPA, estimated 1-year mortality changed by -4.2% (95% CI, -6.0% to -2.4%).

Frailty screening with RAI has been associated with significantly reduced mortality in surgery patients at 1 year.

Aims

- **1.** To implement preoperative frailty screening and optimization for vascular surgery patients, and
- 2. To assess the impact of these interventions on 30-day postoperative outcomes (length of stay, readmission, and mortality)

Methods

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QI project initiated, frailty assessed using RAI for all elective, inpatient vascular surgery

Apr 2022



phase
		Oncology CV/DM Cystic Fibrosis Population Health Patient Questic						
Epic Home Patient List	s MDS O My Reports					Days All Patient Spotlight No data to display. Frailty Screening	9/27/2022	
	Chart Review Review Flowsh	eets Results Re	eview Allergies	History I	Problem	Do you live in a place other than your own home?	0	
	Flowsheet Report Select Flowsheets to View SHC AMB RAI SCORING [715]					If yes, indicate where: When did you begin living in the place you are currently residing? Any kidney failure, kidney not working well, or seeing a kidney doctor (nephrologist)? If yes, was this for kidney stones or another problem?	Greater than one year 8 Other (Comment)	
Adv Care Plan: None MyHealth: Enrolled Search Search MUD 10 Version Organization for		9/27/2022 Patient does not indicate history of cancer 48 48				 Any history of chronic (long-term) congestive heart failure (CHF)? Any shortness of breath when resting? In the past five years, have you been diagnosed with or treated for cancer? 	0 No 0 No No	
Frail defined a	s RAI score ≥37.	H L B R T S S	It: 167.6 cm (5' 6 ast Wt: 59 kg (13 MI: 20.98 kg/m ² IR: 64 >1 day IP: 151/79 >1 da Resp: 11 >1 day Temp: 36.2 °C (97 IPO2: 96% >1 da ICKNOWLEDGE OR	") 30 lb) y 2.2 °F) >1 c y CDERS (10+) LAST 36H	lay	 During the last 3 months has it become difficult for you to remember things or organize your thoughts? Have you lost weight of 10 pounds or more in the past 3 months without trying? Do you have any loss of appetitie? Getting Around (Mobility) Eating Toileting Personal Hygiene (Bathing, Hand Washing, Changing Clothes) RAI Cancer History Total Risk Analysis Index Score 	1 Yes 0 No 2 Needs help from ot 2 Needs help preparing 1 Needs help getting 4 Totally dependent Patient does not ind 48	

Methods

- Primary outcomes
 - Postoperative length of stay (LOS)
 - 30-day readmission
 - 30-day mortality
- Analyses compared frail vs non-frail and pre- vs post-intervention
- Using t-test or Wilcoxon rank-sum test and Chi-squared or Fisher's exact test

Results: Consort Diagram



Results: Frail vs Non-Frail, all surgical patients

	Overall study period (N=201)	Frail (N=36)	Non-Frail (N=165)	P value
Age, years	72.1 ± 10.9	79.0 ± 9.1	70.6 ± 10.7	<.001
Male sex	137 (68.2%)	25 (69.4%)	112 (67.9%)	.86
RAI score	28.5 ± 8.0	40.8 ± 5.1	25.9 ± 5.6	<.001
Open surgery	87 (43.3%)	15 (41.7%)	72 (43.6%)	.83
Length of stay, days	1.60 [1.01, 2.72]	2.45 [1.51, 5.67]	1.23 [1.0, 2.10]	.001
30-day readmission	19 (9.5%)	8 (22.2%)	11 (6.7%)	.009
30-day mortality	3 (1.5%)	2 (5.6%)	1 (0.6%)	.08

Length of stay reported as median [IQR]

Results: Pre-Post LOS by frailty status



Results: Pre-Post 30d readmission by frailty status



Limitations

- Study conducted in setting of quality improvement project
- Small size of baseline cohort with frailty scores
- Step-wise initiation of interventions
- Overall, may be underpowered to see statistical difference

Next Steps

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Design Stanford MyHealth app patient questionnaire



Disseminate to other clinics



Engage further stakeholders (geriatrics, palliative, rehab, etc.)



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Implementation of preop frailty screening and optimization pathway for elective vascular surgery patients led to a nearly <u>three-fold</u> significant decrease in overall 30-day readmission.

Presentation

Shaunak S. Adkar, Xinyan Zheng, Sabina M. Sorondo,

Elizabeth L. George, Jordan R. Stern Risk of Reintervention is Lower for Carotid Endarterectomy than Carotid Artery Stenting



Risk of Reintervention is Lower for Carotid Endarterectomy than Carotid Artery Stenting

Shaunak S. Adkar, Xinyan Zheng, Sabina M. Sorondo,

Elizabeth L. George, Jordan R. Stern

Carotid Artery Stenosis

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• Predominantly due to atherosclerotic disease



Carotid Artery Stenosis

- Predominantly due to atherosclerotic disease
- Responsible for 10-12% of all ischemic strokes/TIA



Carotid Artery Stenosis

- Predominantly due to atherosclerotic disease affecting the carotid arteries
- Responsible for 10-12% of all ischemic strokes/TIA
- Indications for revascularization
 - Greater than 50% stenosis (symptomatic)
 - Greater than 80% stenosis (asymptomatic)



Carotid Artery Revascularization

Carotid Endarterectomy (CEA)

- Surgical exposure and excision of plaque
- RCTs have demonstrated improved stroke reduction/decreased mortality in symptomatic and asymptomatic patients
 - ACAS 6% ARR of 5-year ipsilateral stroke in asymptomatic patients
 - NASCET 17% ARR of 2-year ipsilateral stroke in symptomatic patients



Carotid Artery Stenting (CAS)

Transfemoral Carotid Artery Stenting (TFCAS)

- Percutaneous delivery of a bare metal stent
- Requires arch manipulation and traversal of the carotid lesion, with consequent risk of perioperative stroke

Transcarotid Artery Revascularization

 Surgical exposure of the common carotid artery with flow reversal prior to stent deployment





Long-term outcomes of CEA vs. CAS

- Peri-operative outcomes following CEA and CAS have been well-studied
 - CREST: Significantly decreased risk of peri-op stroke with CEA (2.3% vs. 4.1 %)
- Contemporary re-intervention rates and longterm outcomes remain unclear
 - CREST: No significant difference in composite stroke, mortality, or MI at 4 years
- The durability of transcarotid artery revascularization (TCAR) remains to be evaluated



Methods

- Queried VQI data matched to Medicare claims via the Vascular Implant Surveillance and Implantation Network (VISION) database from 2016-2019
- Propensity-matching
 - CEA vs. all CAS patients (n=4705 each)
 - TCAR vs. TFCAS patients (n=2115 each)
- Time-dependent Cox regression models were used to compare outcomes
 - Primary outcome: Ipsilateral Reintervention
 - Secondary outcome: Stroke and Mortality

Cohort Generation

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Exclude:

1. Both CEA and CAS at the index procedure

2. CAS approach other than femoral, trans-carotid, open carotid

3. Had no Medicare part A and part B entitlement at the index

Patient Characteristics (CEA vs. CAS)

	Before Match			After Match			
	CEA (n = 21256)	CAS (n=6688)	p-value	CEA (n=4705)	CAS (n=4705)	p-value	
Age (IQR)	74(69-79)	75(69-80)	<0.001	75(69-80)	75(69-81)	0.65	
Male	12743(60.0)	4281(64.0)	< 0.001	2923(62.1)	2958(62.8)	0.48	
Current Smoker	4125(19.4)	1340(20.1)	0.26	968(20.6)	931(19.8)	0.34	
CAD	5747(27.1)	3309(49.7)	<0.001	2054(43.7)	2221(47.2)	<0.001	
COPD	4982(23.4)	1765(26.4)	< 0.001	1240(26.4)	1264(26.9)	0.58	
CKD	612(2.9)	234(3.5)	< 0.01	167(3.5)	166(3.5)	0.96	
High ASA (4/5)	4826(22.7)	1659(25.8)	< 0.001	1224(26.0)	1213(25.8)	0.80	
Degree of Stenosis			< 0.001			0.64	
<50% 50-69% 70-79% 80-99%	381(1.8) 1823(8.7) 6205(29.7) 12029(57.6)	135(2.2) 482(7.8) 1505(24.3) 3809(61.6)		90(1.9) 329(7.0) 1199(25.5) 2946(62.6)	102(2.2) 322(6.8) 1187(25.2) 2931(62.3)		
ASA	17798(83.7)	5793(86.7)	< 0.001	3967(84.3)	4015(85.3)	0.16	
P2Y12 Inhibitor	7247(34.1)	5241(78.4)	< 0.001	3585(76.2)	3521(74.8)	0.12	
Statin	17886(84.2)	5599(83.8)	0.43	3980(84.6)	3951(84)	0.41	
Prior Radiation	292(1.4)	513(7.9)	<0.001	151(3.2)	193(4.1)	0.02	

Reduced risk of stroke and mortality with CEA



Reintervention (CEA v CAS)



Reintervention (CEA v CAS)



Patient Characteristics (TFCAS v TCAR)

		Before Match			After Match			
	TFCAS (n = 3450)	TCAR (n=3238)	p-value	TFCAS (n=2115)	TCAR (n=2115)	p-value		
Age (IQR)	76(71-81)	73(68-79)	<0.001	74(69-80)	74(69-80)	0.83		
Male	2177(63.1)	2104(65.0)	0.11	1369(64.7)	1379(65.2)	0.74		
Current Smoker	582(16.9)	758(23.5)	< 0.001	436(20.6)	448(21.2)	0.17		
CAD	1773(51.4)	1536(47.8)	0.003	1031(48.7)	995(47.0)	0.27		
COPD	908(26.3)	857(26.5)	0.87	575(27.2)	571(27.0)	0.89		
CKD	120(3.5)	114(3.6)	0.88	83(3.9)	86(4.1)	0.81		
High ASA (4/5)	1031(30.1)	628(20.8)	< 0.001	482(22.8)	474(22.4)	0.77		
Degree of Stenosis			< 0.001			0.32		
<50% 50-69% 70-79% 80-99%	46(1.3) 252(7.3) 805(23.3) 2181(63.2)	89(2.7 230(7.1) 700(21.6) 1628(50.3)		41(1.9) 178(8.4) 541(25.6) 1264(59.8)	56(2.6) 185(8.7) 539(25.5) 1228(58.1)			
ASA	3080(89.3)	2713(83.9)	< 0.001	1858(87.8)	1837(86.9)	0.33		
P2Y12 Inhibitor	2956(85.7)	2285(70.6)	< 0.001	1619(80.0)	1642(77.6)	0.06		
Statin	3067(88.9)	2532(78.3)	< 0.001	1759(84.9)	1771(83.7)	0.31		
Prior Radiation	237(7.0)	276(8.9)	0.004	188(8.9)	194(9.2)	0.75		

Increased risk of stroke and mortality with TFCAS

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Reduced risk of reintervention with TCAR



Discussion

- Amongst all-comers, we observe a mortality, stroke, and reintervention benefit with CEA
- This appears to be driven by inferior outcomes with TFCAS, specifically
- TCAR appears to have improved durability compared to TFCAS over a period of 3-years

Conclusions

- CEA portends lower rates of reintervention, stroke, and mortality compared to CAS
- Patients undergoing TCAR have lower rates of reinterventions beyond 6 months suggesting increased durability of TCAR
- Amongst all procedures CEA appears to be the most durable procedure with TCAR the more durable stenting procedure



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

Tivos

Physician Snapshot Report R

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Follow-up Outcomes Repo... V CP.

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[®] TAG[®] 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

TBD

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 achurilla@svspso.org with names of group members that are sharing 1 device



SVU

SVS Society for Vascular Surgery W American Chico Society for Vascular Medicine Vascular Medicine



October 28, 2023 - Northern California





 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

