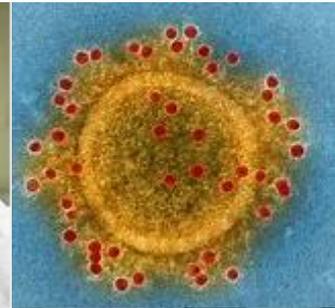


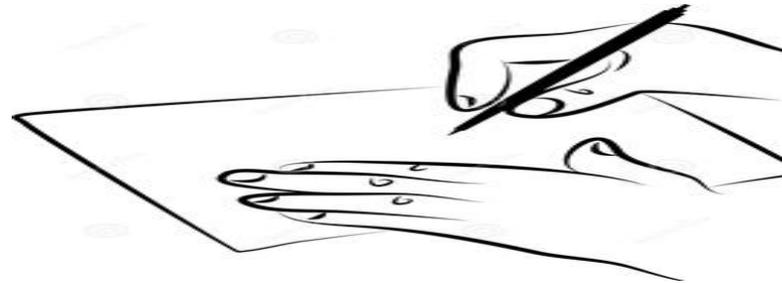
# To Healthcare Workers everywhere!



# Mid-America Vascular Study Group (MAVSG)

**September 29, 2020**  
**9:30 am-12:00 pm CT**  
**Remote**

## 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 you’ll see “rename”. Click and sign in. If you can’t sign in, please email Leka Johnson at [ljohnson@svspsso.org](mailto:ljohnson@svspsso.org) and let her know the identifier you were signed in under (ex –LM7832 or your phone number).

**\*\*SPECIAL NOTE: We do give credit to residents/fellows that don’t have a pathways user account !!!**

**Sign in with your Full name, MD, Name of Institution**

# Agenda

Time	Topic	CE Credit
9:30am	Welcome	No
9:40am	<p>Regional Data Review David Chew, MD - Regional Medical Director, MAVSG Learning Objectives:</p> <ul style="list-style-type: none"><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>	Yes
10:20am	<p>Regional QI Proposal David Chew, MD - Regional Medical Director, MAVSG Learning Objectives:</p> <ul style="list-style-type: none"><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>	Yes

# Agenda (con't)

Time	Topic	CE Credit
11:00am	<p>National VQI Update Cheryl Jackson, DNP, MS, RN, CNOR, CPHQ, Quality Director, PSO</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"><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>	Yes
11:40am	AQC Update – Trissa Babrowski, MD	No
	VQC Update – Ravi Hasanadka, MD	No
	RAC Update – Cheryl Jackson, SVS	No
	Governing Council Update – David Chew, MD	No
12:00pm	Open Discussion/ Next Meeting / Meeting Evaluation	No

Relevant to the content of this educational activity the presenters have no conflict(s) with commercial interest companies to disclose.

# WELCOME AND INTRODUCTIONS

## Adventist Medical Center La Grange

Advocate Good Samaritan  
Advocate South Suburban  
Alexian Brothers Medical Center  
Barnes Jewish Hospital  
Bryan Medical Center  
Carle Foundation Hospital  
Central DuPage Hospital

## CGH Medical Center

Columbia Surgical Services, Inc.  
Decatur Memorial Hospital  
Edward Hospital  
Elmhurst Memorial Hospital  
Flint Hills Heart, Vascular, Vein Clinic, LLC  
Genesis Medical Center, Davenport  
Gilvydis Vein Clinic  
Gottlieb Memorial Hospital  
Great River Medical Center

## Javon Bea Hospital - Riverside Campus

Kansas Heart Hospital  
Loyola University Medical Center  
MacNeal Hospital  
Memorial Hospital Belleville  
Memorial Hospital of Carbondale  
Memorial Medical Center  
Menorah Medical Center  
Mercy Hospital Springfield  
Mercy Hospital St. Louis

MercyOne Des Moines Medical Center  
MercyOne Siouxland Medical Center  
Midwest Institute Minimally Invasive Therapies  
Midwest Physician Alliance  
Mosaic Life Care  
Nebraska Medicine  
Nebraska Methodist Hospital  
NorthShore Hospital  
Northwestern Memorial Hospital  
OSF Saint Anthony Medical Center  
OSF Saint Francis Medical Center  
OSF St. Joseph Medical Center  
Saint Luke's Episcopal Presbyterian Hospital  
Saint Luke's Hospital of Kansas City  
Southern Illinois University School of Medicine  
SSM DePaul Health Center  
SSM Saint Louis University Hospital  
SSM St. Clare Health Center  
SSM St. Joseph Health Center  
St. Joseph Medical Center  
St. Luke's Methodist Hospital  
The Methodist Medical Center of Illinois  
Unity Point Health Des Moines  
University of Chicago Medical Center  
University of Iowa  
University of Kansas Hospital Authority  
University of Missouri Medical Center

David Chew, MD

## Vascular Quality Initiative Regional Quality Report

### Notes:

- 1) In all reports, regional data are not shown if the region does not have at least 3 centers with at least 10 cases meeting inclusion criteria for each outcome in the applicable registry.
- 2) In "by Center" bar charts, unless noted, data are not shown for centers with <10 cases and for regions with <3 centers.
- 3) In all graphics, "\*" indicates a p-value <.05.
- 4) This report includes all data that had been entered into the VQI as of January 31, 2020.

## Dashboard

The dashboard summarizes your center's results for each module and provides 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 module. The "Your Region" and "VQI Overall" columns give the aggregate percentage of cases with the noted outcome, as well as the 25th, 50th (median), and 75th percentiles, for centers in your region and VQI, respectively. Percentiles are ordered so that a higher percentile indicates better performance. Your center's results are highlighted green if your center is at or above the 75th percentile across VQI, yellow if among the middle 50% of centers in VQI, and red if at or below the 25th percentile across VQI. For details on a particular module, click on the module report name in the table of contents on the left.

Legend: **Green = At or above 75th percentile** **Yellow = Middle 50%** **Red = At or below 25th percentile**

Procedure Group	Outcome	Your Center % (n/N)	Your Region % [25p 50p 75p]	VQI Overall % [25p 50p 75p]
All	Procedure Volume		[14   48   214]	[20   88   229]
	Procedure Volume, All Years		[42   174   1334]	[50   339   1334]
Multiple	Long-Term Follow-up	73.6%	[46%   76%   89%]	68.3% [45%   71%   87%]
	Discharge Medications	88.7%	[83%   94%   100%]	84.8% [79%   88%   96%]
TFEM CAS ASYMP	Stroke/Death		NA (<3 centers)	1.2% [0%   0%   0%]
TFEM CAS SYMP	Stroke/Death		1.2% [0%   0%   0%]	3.6% [0%   0%   0%]
TCAR ASYMP	Stroke/Death		0.6% [0%   0%   0%]	1% [0%   0%   0%]
TCAR SYMP	Stroke/Death		3% [0%   0%   0%]	3% [0%   0%   0%]
CEA ASYMP	Stroke/Death		0.7% [0%   0%   0%]	0.9% [0%   0%   0%]
	Postop LOS>1 Day		21.7% [26%   19%   11%]	23.3% [33%   21%   12%]
CEA SYMP	Stroke/Death		2.1% [0%   0%   0%]	1.7% [0%   0%   0%]
	Postop LOS>1 Day		50.7% [55%   50%   34%]	43% [59%   40%   27%]
EVAR	Postop LOS>2 Days		10.6% [14%   8%   0%]	14.2% [20%   13%   5%]
	Sac Diameter Reporting		68.2% [67%   75%   80%]	58.6% [38%   64%   79%]
	SVS Sac Size Guideline		71.6% [63%   75%   79%]	73.4% [62%   75%   87%]
TEVAR	Sac Diameter Reporting		NA (<3 centers)	56.7% [22%   55%   73%]
OAAA	In-Hospital Mortality		NA (<3 centers)	4.2% [1%   0%   0%]
	SVS Cell-Saver Guideline		NA (<3 centers)	93.3% [95%   100%   100%]
	SVS Iliac Inflow Guideline		NA (<3 centers)	98.6% [100%   100%   100%]
PVI	ABI/Toe Pressure		83.3% [83%   89%   95%]	74.6% [60%   84%   94%]
INFRA	Major Complications		3.3% [5%   0%   0%]	4.1% [6%   0%   0%]
SUPRA	Major Complications		NA (<3 centers)	5.2% [0%   0%   0%]
LEAMP	Postop Complications		NA (<3 centers)	12% [18%   10%   5%]
AVACCESS	Primary AVF vs. Graft		77.7% [62%   62%   77%]	82.1% [72%   85%   92%]
IVCF	Filter Retrieval Reporting		NA (<3 centers)	22.8% [0%   1%   33%]

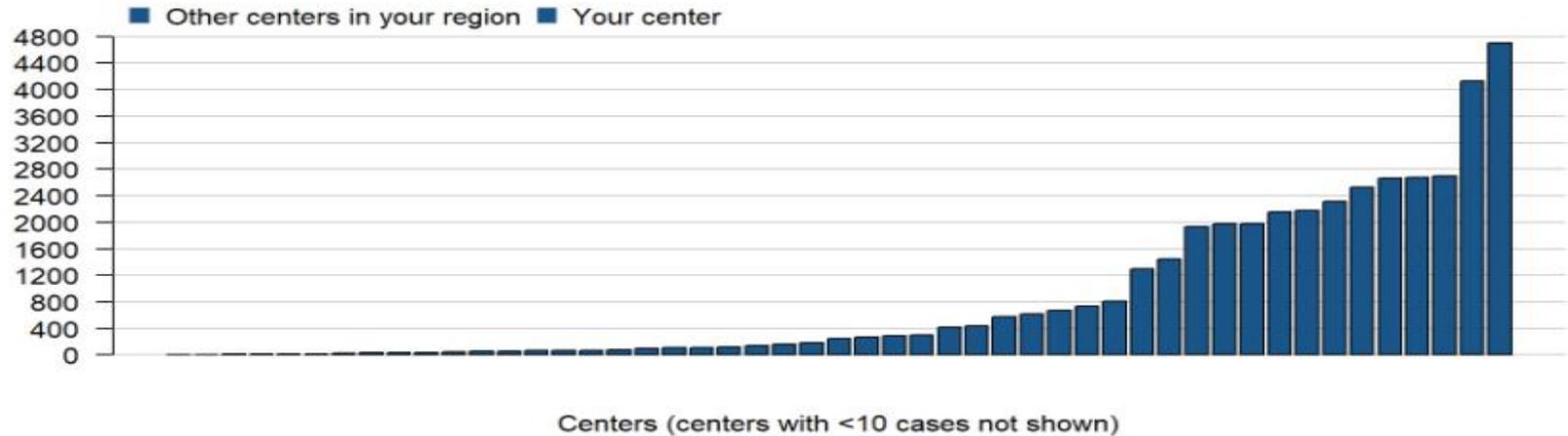
## Procedure Volume, All Years

Includes all procedures with procedure date through May 31, 2020

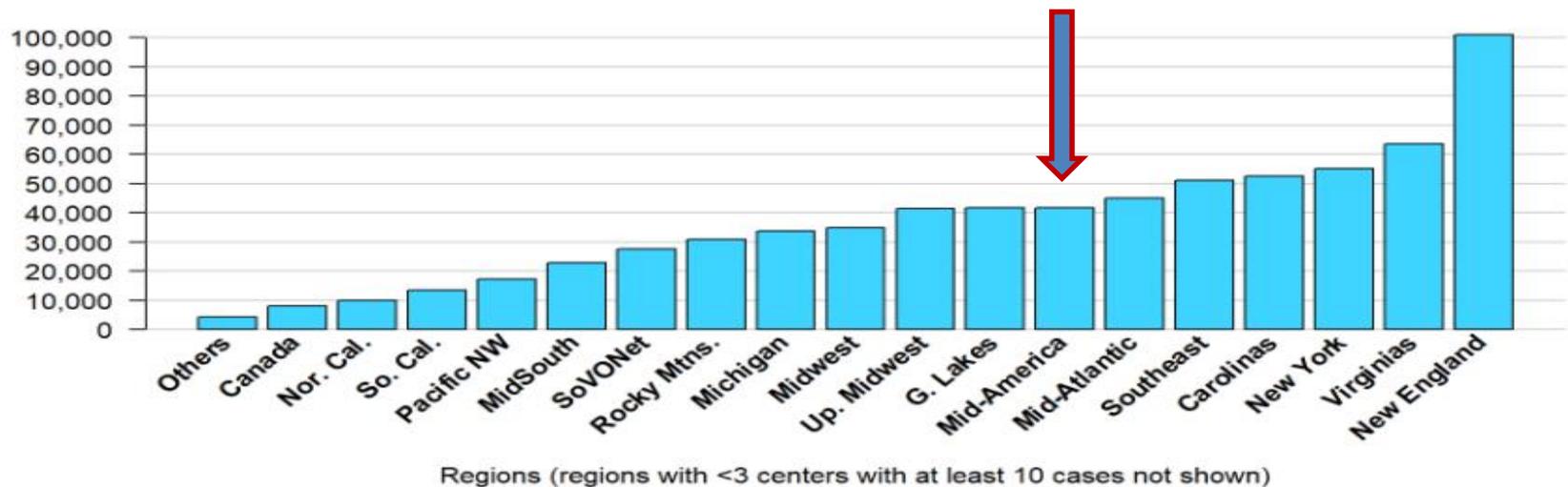
Number of cases entered into the VQI, by registry and overall

	Your Center (N)	Your Region (N)	VQI Overall (N)
AVACCESS		2975	54564
CAS (TFEM CAS & TCAR)		3814	41682
CEA		7193	139597
EVAR		2594	55124
INFRA		2659	59556
IVCF		831	14022
LEAMP		762	17738
OAAA		605	13439
PVI		14019	225515
SUPRA		988	19457
TEVAR		845	17236
Varicose Veins		NA (<3 centers)	38407
Overall		41667	696337

### Procedure Volume by Center in Your Region (Through May 2020)



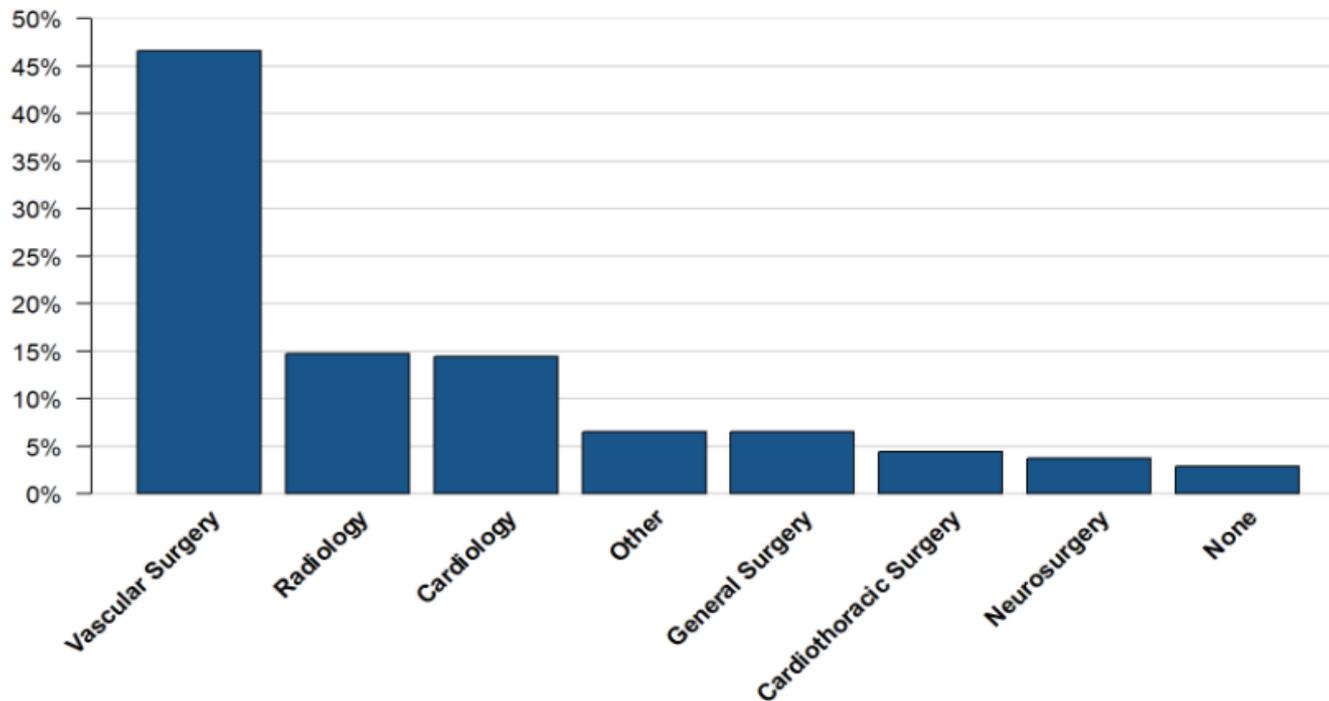
### Procedure Volume Across VQI (Through May 2020)



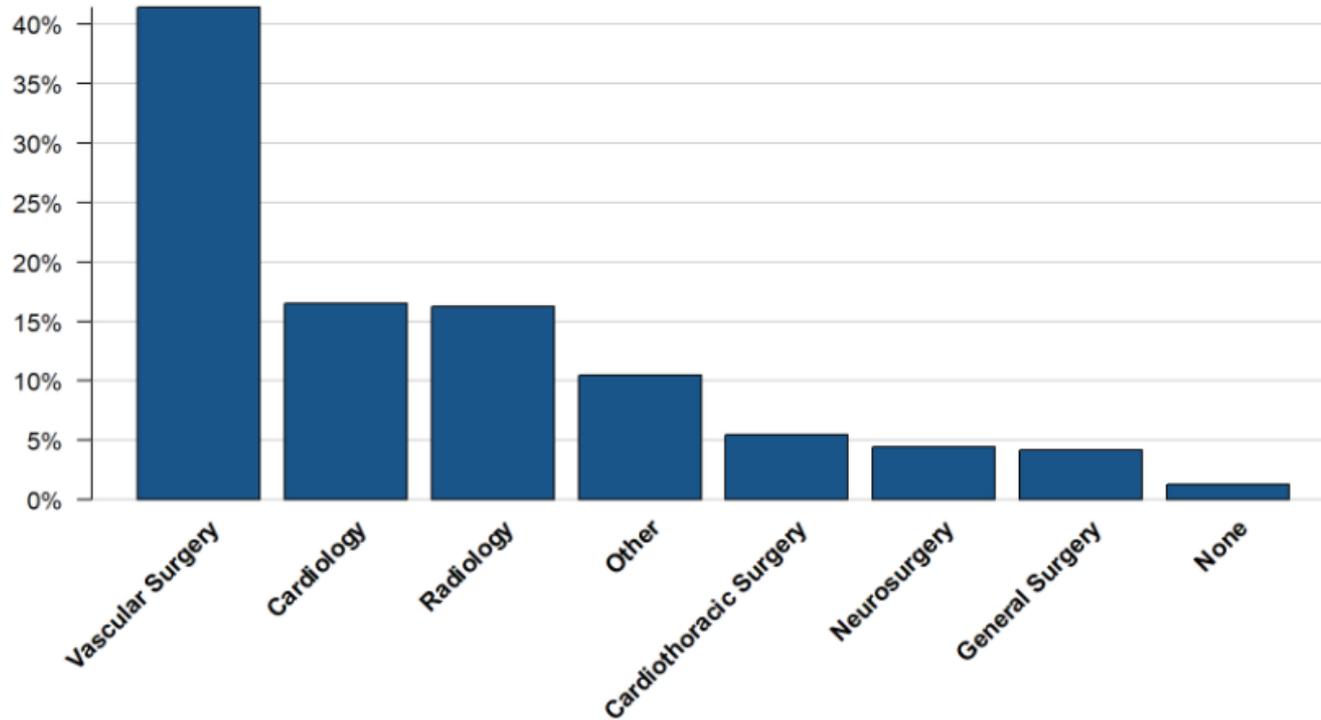
\*"Others" indicates centers that do not belong to a regional group.

## Physician Specialties

Physician Specialties Across VQI (as of June 30, 2020, N=5156 Physicians)



**Physician Specialties Across Your Region (as of June 30, 2020, N=382 Physicians)**



## Long-Term Follow-up

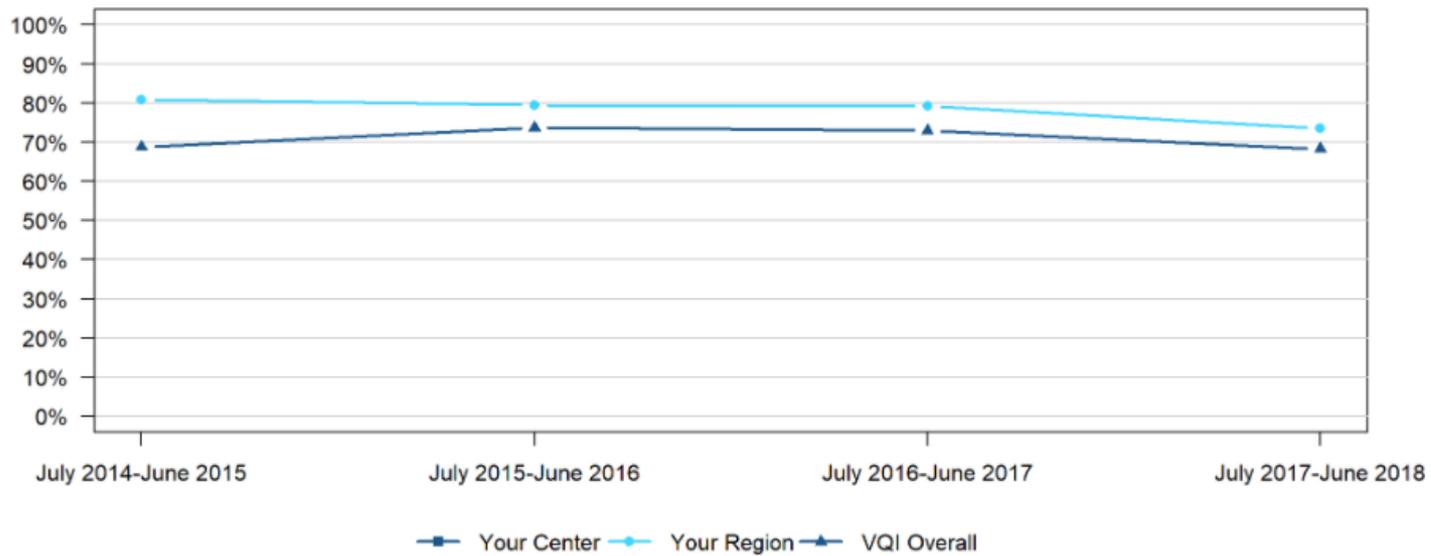
Procedures performed between July 1, 2017 and June 30, 2018

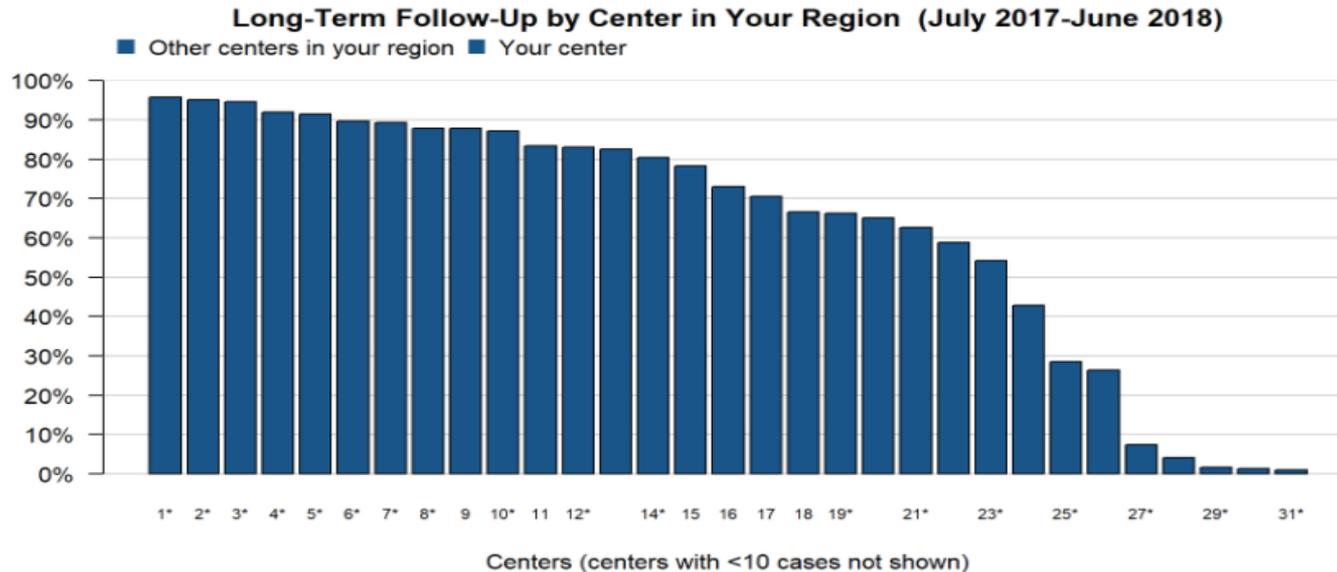
Includes AVACCESS, CAS (TFEM CAS and TCAR), CEA, EVAR, INFRA, IVCF, LEAMP, OAAA, PVI, SUPRA, and TEVAR procedures only. Excludes cases not eligible for long-term follow-up.

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

	Your Center	Your Region	VQI Overall
AVACCESS		346 (62%)	7949 (59%)
CAS		616 (54%)	6442 (65%)
CEA		1073 (74%)	18395 (70%)
EVAR	<b>Both our region and VQI national LTFU dropped</b>	412 (78%)	7337 (70%)
INFRA		411 (76%)	7463 (70%)
IVCF		171 (84%)	2153 (71%)
LEAMP		149 (48%)	3143 (63%)
OAAA		NA (<3 centers)	1200 (72%)
PVI		2367 (79%)	32437 (70%)
SUPRA		120 (82%)	2368 (67%)
TEVAR		164 (77%)	2502 (66%)
Overall (July 2017-June 2018)		5896 (74%)	91389 (68%)
Overall (July 2016-June 2017)		5485 (79%)	80731 (73%)

**Long-Term Follow-Up by Center in Your Region (July 2017-June 2018)**





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

Long-Term Follow-Up Unblinding Legend for Your Region

Index	Medical Center Name
1	MercyOne Des Moines Medical Center
2	OSF St. Joseph Medical Center
3	OSF Saint Francis Medical Center
4	Loyola University Medical Center
5	OSF Saint Anthony Medical Center
6	Northwestern Memorial Hospital
7	SSM Health St. Joseph Hospital - St. Charles
8	Midwest Physicians Alliance
9	NorthShore Hospital
10	Carle Foundation Hospital
11	NA
12	University of Chicago Medical Center
13	Central DuPage Hospital
14	Saint Luke's Hospital of Kansas City
15	SSM Health St. Clare Hospital - Fenton
16	Memorial Hospital of Carbondale
17	Mercy Hospital St. Louis
18	Alexian Brothers Medical Center
19	University of Kansas Hospital Authority
20	Nebraska Medicine
21	SSM Health DePaul Hospital - St. Louis
22	Columbia Surgical Services, Inc.
23	University of Missouri Medical Center
24	UnityPoint Health Des Moines
25	Mercy Hospital Springfield
26	University of Iowa Hospitals and Clinics
27	St. Luke's Methodist Hospital
28	SSM Health Saint Louis University Hospital
29	Southern Illinois University School of Medicine
30	Barnes Jewish Hospital
31	Flint Hills Heart, Vascular, Vein Clinic, LLC

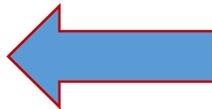
# Long Term Follow-Up Completion Rate by Procedure - TOOL

Enter New Patient / Find Existing Patient | **Tools** | Resources | Share a File | Analytics & Reporting Engine

Tools > Long-term Follow-up Completion Rate by Procedure

## Data Management Tools

- Incomplete Records Report
- Procedures/treatments Requiring Follow-up
- Data Download
- CAS Certification Data Download
- Long-term Follow-up Completion Rate by Procedure
- MIPS Measures by Physician Report
- Claims Validation
- Audit & Supplemental Data Query Worklist
- Procedures/treatments Missing 30-day Follow-up
- Users and Permissions Report



Procedure/treatment Date From   Procedure/treatment Date To



**Select your date range and submit**

## Bard LifeStent Popliteal Artery Stent Project

- Bard LifeStent Popliteal Artery Stent Project Enrollment Report
- Bard LifeStent Popliteal Artery Stent Project Reimbursement Report
- Bard LifeStent Popliteal Artery Stent Project Retention and Query Report

## Medtronic IN.PACT Admiral DCB ISR Project

- Medtronic IN.PACT Admiral DCB ISR Center Enrollment Report
- Medtronic IN.PACT Admiral DCB ISR Center Reimbursement Report
- Medtronic IN.PACT Admiral DCB ISR Center Retention and Query Report

# For example – Endo AAA Repair

Enter New Patient / Find Existing Patient | Tools | Resources | Share a File | Analytics & Reporting Engine  
Tools > Long-term Follow-up Completion Rate by Procedure

Procedure/treatment Date From 07/01/2017 x Procedure/treatment Date To 06/30/2018

Submit

Procedure Type	Completion Rate
Carotid Artery Stent	100% (2/2)
Carotid Endarterectomy	97% (138/143)
Endo AAA Repair	100% (47/47)
Infra-inguinal Bypass	94% (49/52)
Open AAA Repair	95% (19/20)
Peripheral Vascular Intervention	94% (62/66)
Supra-inguinal Bypass	93% (37/40)
Thoracic and Complex EVAR	100% (5/5)
Overall	96% (359/375)



\*Denominator only includes submitted records.

Rule definitions can be found by clicking the registry name.

## Rule(s) and definition(s)

### Endo AAA Repair

- If converted to Open, then a follow-up EVAR form is not required.
- Death recorded on one follow-up (regardless of the reporting time) should be applied to all procedures of same patient.
- Only follow-ups with Contact By = Face to face or Phone or Other source are considered as valid in calculating the follow-up rate.
- Follow-ups with Contact By = No Follow-up Possible and with Death of patient reported will be considered as valid.
- If death is recorded on an index procedure, no follow-up is required for that procedure. This procedure will be excluded.
- Unless otherwise stated inside a registry-specific rule a follow-up must have a Date of Contact  $\geq 273$  and  $\leq 640$  days since procedure.
- If all Follow-up records of the same procedure do not have LTF Mandatory fields completed, then credit is not given in the Completion Rate report.

**Click on “Procedure Type” and you will get rules and definitions for each procedure for num. and dem.**

LTF Numerator:

- Y = one or more follow-up records exist that meet LTF requirement.
- N = no follow-ups are submitted or submitted follow-up(s) fail to meet LTF requirements (e.g., no follow-up possible).

LTF Denominator:

- Y = procedure/treatment record is included in LTF calculation.
- N = procedure/treatment record is excluded from LTF calculation (e.g., in-hospital death).

Click on the abbreviated procedure/treatment type name to view applicable LTF rules.

Procedure/treatment Date From   Procedur

Submit

Procedure Type	Completion Rate
Carotid Artery Stent	100% (2/2)
Carotid Endarterectomy	97% (138/143)
Endo AAA Repair	100% (47/47)
Infra-inguinal Bypass	94% (49/52)
Open AAA Repair	95% (19/20)
Peripheral Vascular Intervention	94% (62/66)
Supra-inguinal Bypass	93% (37/40)
Thoracic and Complex EVAR	100% (5/5)
Overall	96% (359/375)

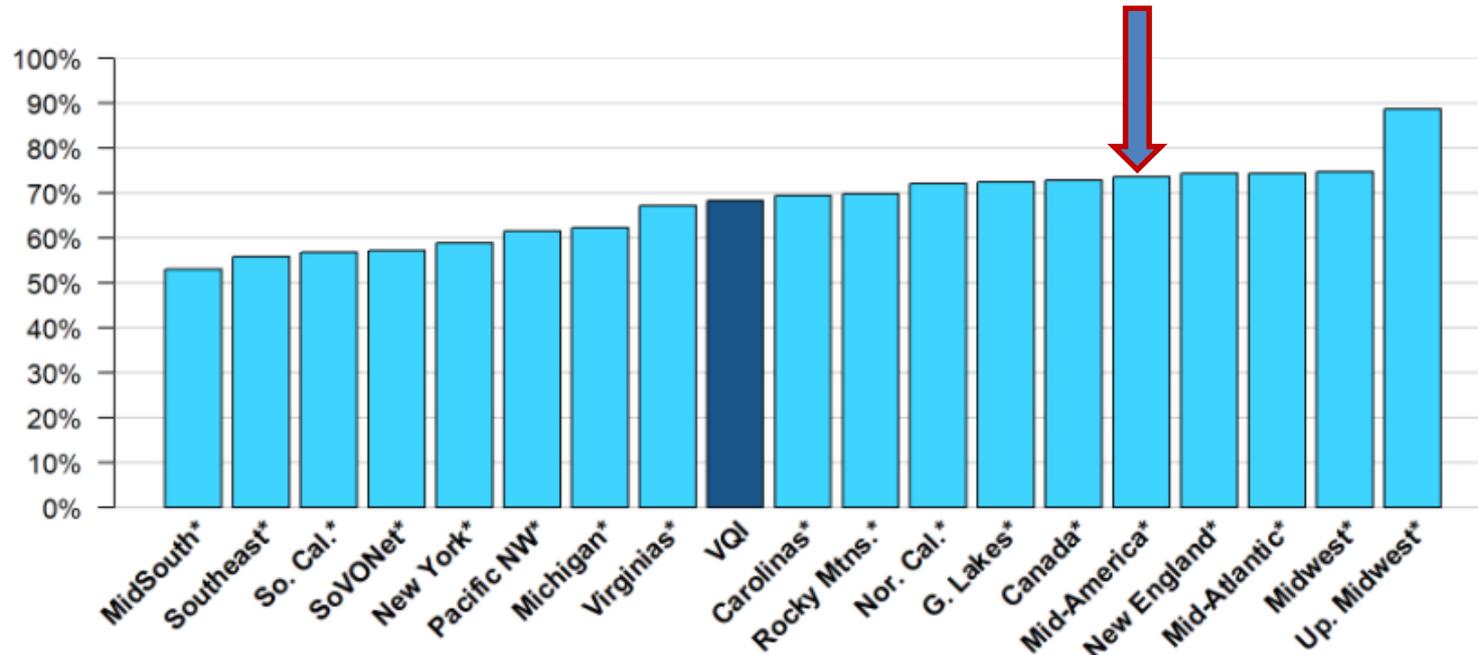
\*Denominator only includes submitted records.

*Rule definitions can be found by clicking the registry name.*

- **Click on completion rate and you will see**
- **Y-Yes / N-No for numerator and denominator.**

Procedure/treatment	Procedure/treatment Date	Days Since Procedure/treatment	Follow-up Window Start	Follow-up Window Close	LTF Numerator	LTF Denominator
<a href="#">Endo AAA Repair</a>	01/22/2018	976	10/22/2018	10/24/2019	Y	Y
<a href="#">Endo AAA Repair</a>	07/12/2017	1170	04/11/2018	04/13/2019	Y	Y
<a href="#">Endo AAA Repair</a>	07/12/2017	1170	04/11/2018	04/13/2019	Y	Y
<a href="#">Endo AAA Repair</a>	07/24/2017	1158	04/23/2018	04/25/2019	Y	Y
<a href="#">Endo AAA Repair</a>	08/08/2017	1143	05/08/2018	05/10/2019	Y	Y
<a href="#">Endo AAA Repair</a>	09/13/2017	1107	06/13/2018	06/15/2019	Y	Y
<a href="#">Endo AAA Repair</a>	07/17/2017	1165	04/16/2018	04/18/2019	Y	Y
<a href="#">Endo AAA Repair</a>	12/15/2017	1014	09/14/2018	09/16/2019	Y	Y
<a href="#">Endo AAA Repair</a>	12/05/2017	1024	09/04/2018	09/06/2019	Y	Y
<a href="#">Endo AAA Repair</a>	11/03/2017	1056	08/03/2018	08/05/2019	Y	Y

**Long-Term Follow-Up by Region Across VQI (July 2017-June 2018)**



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

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

## Discharge Medications

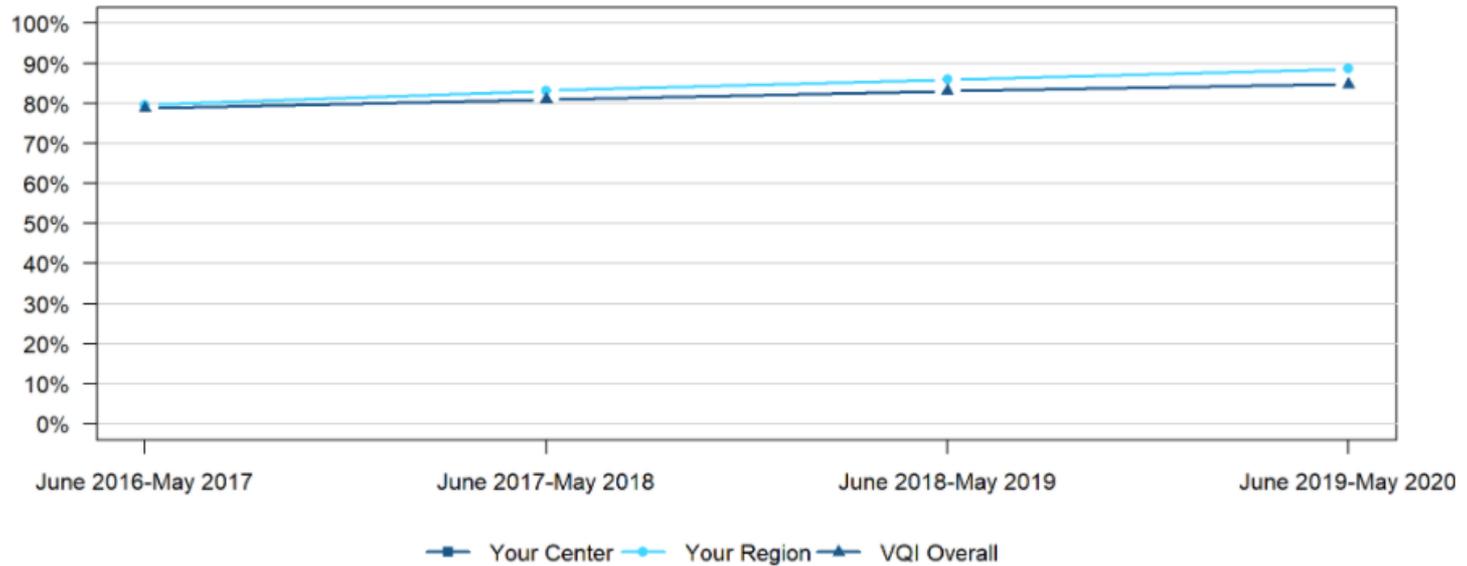
Procedures performed between June 1, 2019 and May 31, 2020

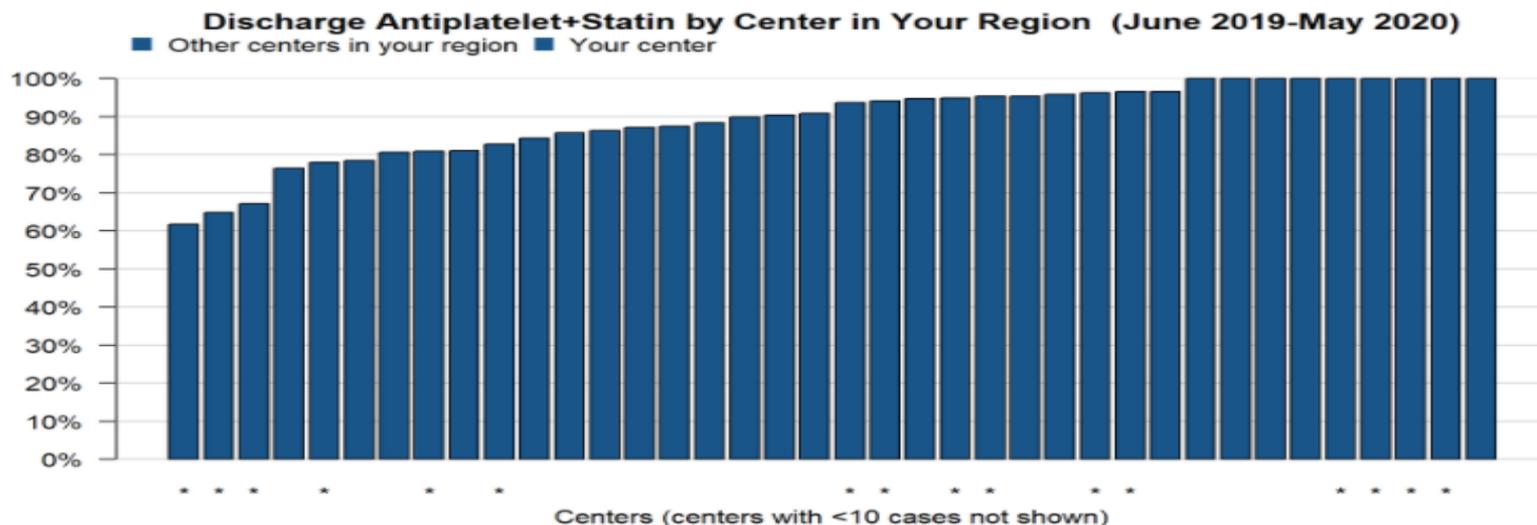
Includes CAS (TFEM CAS and TCAR), CEA, EVAR, INFRA, LEAMP, OAAA, PVI, SUPRA, and TEVAR procedures only. Excludes patients who died in hospital or patients who were not treated for medical reason. "Antiplatelet" is defined as ASA or P2Y12 inhibitor.

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

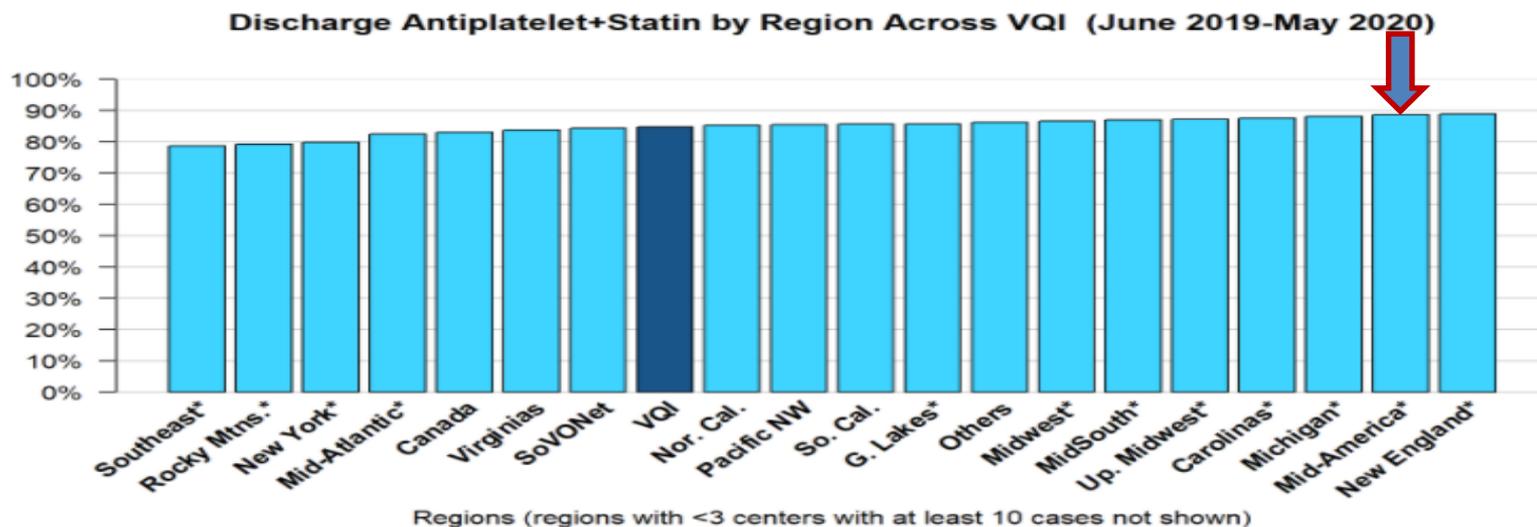
	Number of Procedures at Your Center	Antiplatelet+Statin	Antiplatelet Only	Statin Only	Neither
CAS					
CEA					
EVAR					
INFRA					
LEAMP					
OAAA					
PVI					
SUPRA					
TEVAR					
Your Center Overall					
Your Region Overall	5173	89%	8%	2%	1%
VQI Overall	80978	85%	9%	4%	2%

### Discharge Antiplatelet+Statin by Year





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



\*Others\* indicates centers that do not belong to a regional group. \*\*\* Indicates region's rate differs significantly from the VQI rate.

## TFEM CAS ASYMP: Stroke/Death

Procedures performed between June 1, 2019 and May 31, 2020

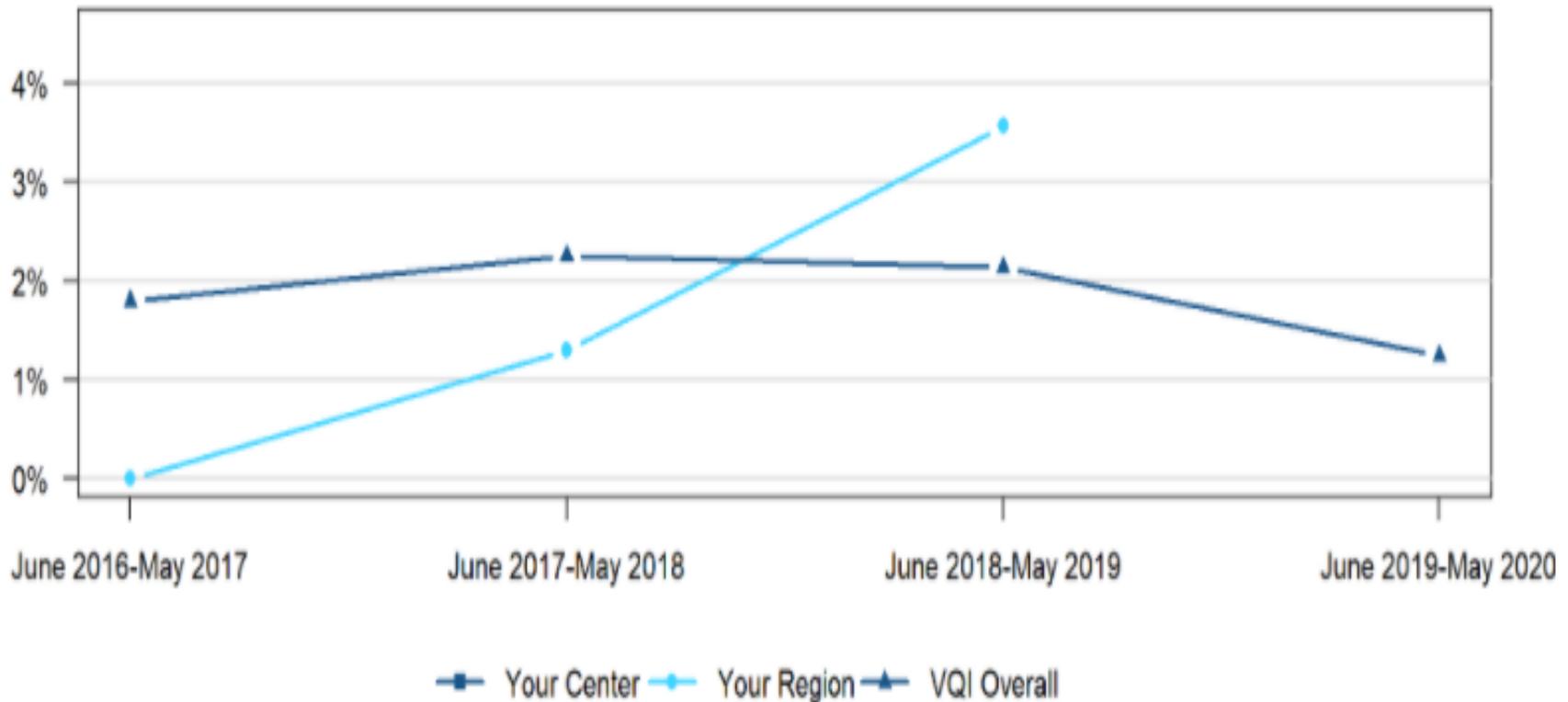
Includes asymptomatic admissions for Transfemoral Carotid Artery Stenting (TFEM CAS) only. Asymptomatic admissions are admissions where the patient had no ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar TIA 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 “Femoral” are also excluded.

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

	Your Center	Your Region	VQI Overall
Number of TFEM CAS procedures meeting inclusion criteria		NA (<3 centers)	1205
Observed rate of stroke or death among procedures meeting inclusion criteria			1.2%
Number of procedures with complete data*			1116
Observed rate of stroke or death among cases with complete data			1.3%
Expected rate of stroke or death among cases with complete data*			NA
P-value for comparison of observed and expected rates			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 TFEM CAS for Asymptomatic Admissions by Year



Rates shown are observed rates among cases meeting inclusion criteria.

### Stroke or Death After TFEM CAS for Asymptomatic Admissions in Your Region (June 2019-May 2020)

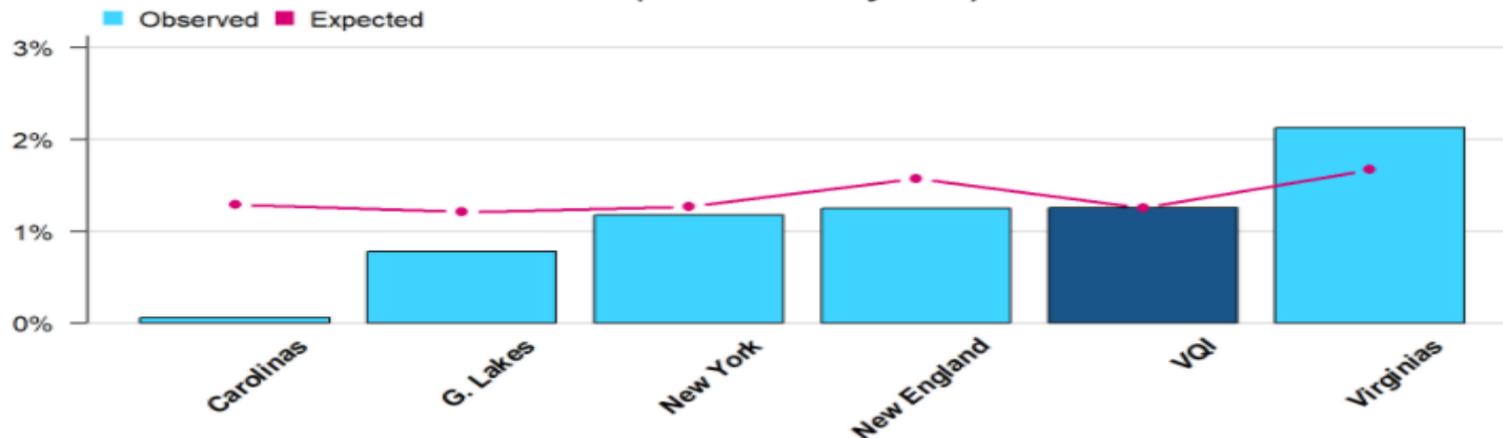


Centers (centers with <10 complete cases not shown)

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases.

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

### Stroke or Death After TFEM CAS for Asymptomatic Admissions by Region Across VQI (June 2019-May 2020)



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

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases.

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

## TFEM CAS SYMP: Stroke/Death

Procedures performed between June 1, 2019 and May 31, 2020

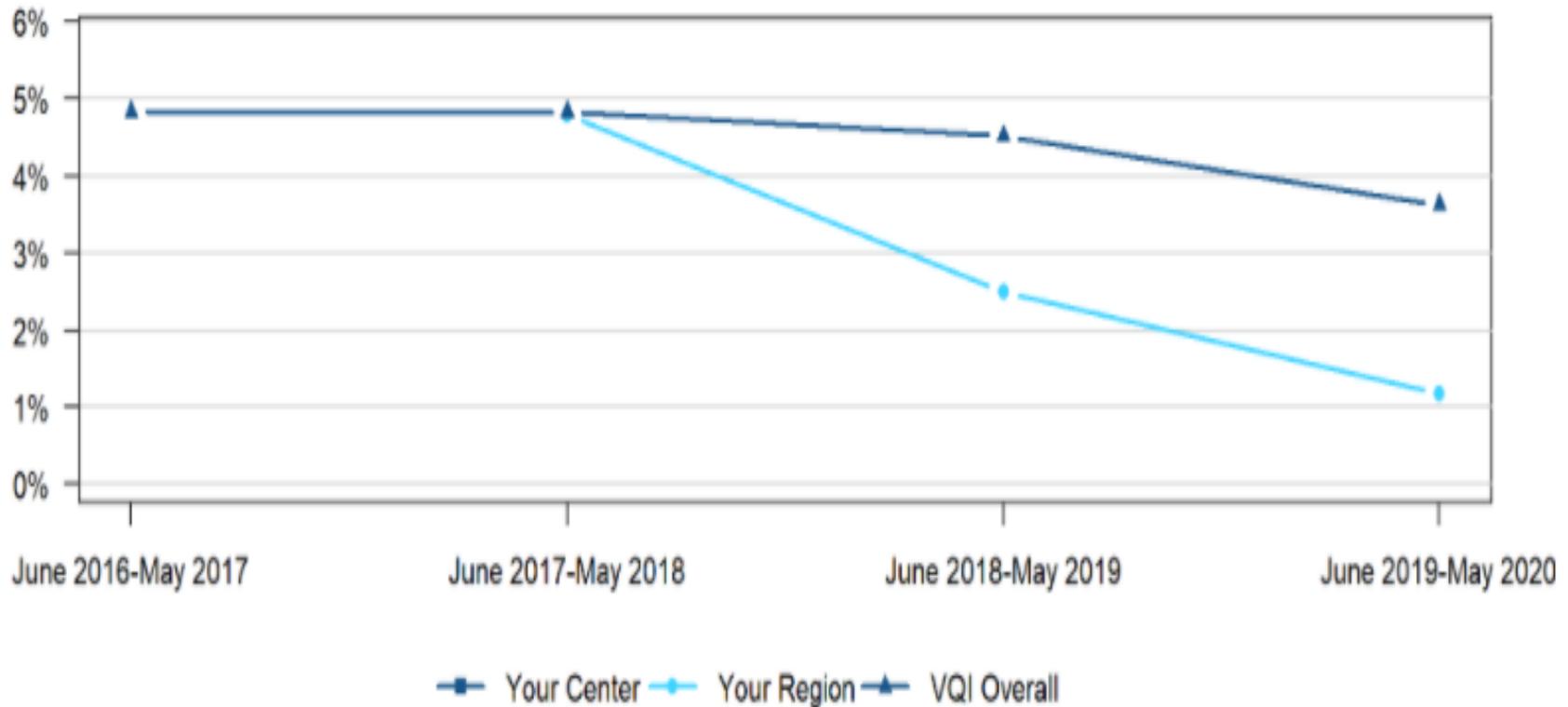
Includes symptomatic admissions for Transfemoral Carotid Artery Stenting (TFEM CAS) only. Symptomatic admissions are admissions where the patient had an ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar TIA 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 “Femoral” are also excluded.

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

	Your Center	Your Region	VQI Overall
Number of TFEM CAS procedures meeting inclusion criteria		170	1407
Observed rate of stroke or death among procedures meeting inclusion criteria		1.2%	3.6%
Number of procedures with complete data*		156	1317
Observed rate of stroke or death among cases with complete data		0.6%	3.1%
Expected rate of stroke or death among cases with complete data*		3.5%	NA
P-value for comparison of observed and expected rates		0.05	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 TFEM CAS for Symptomatic Admissions by Year



Rates shown are observed rates among cases meeting inclusion criteria.

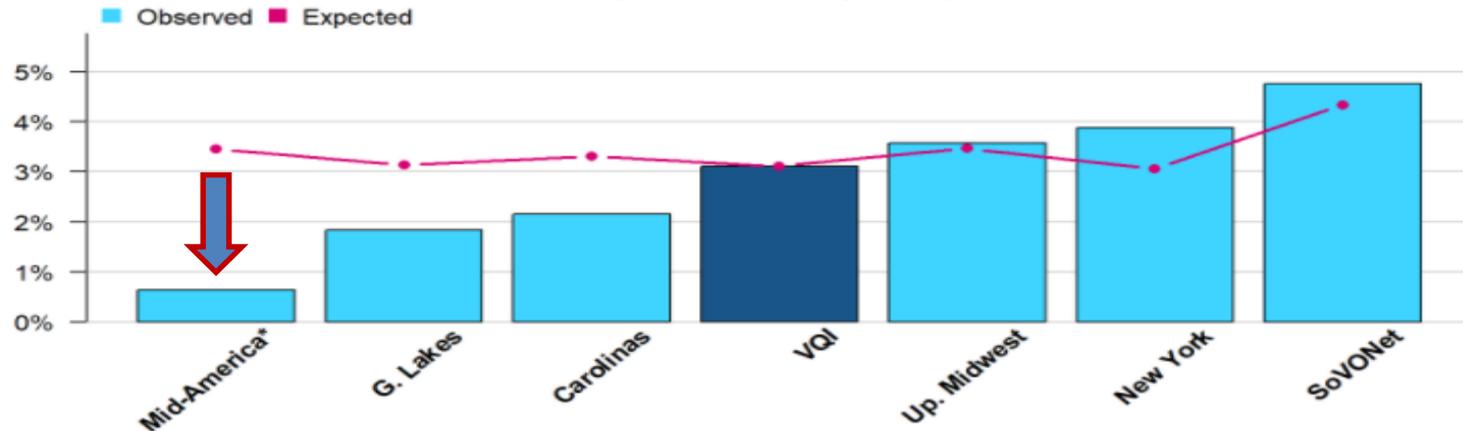
**Stroke or Death After TFEM CAS for Symptomatic Admissions in Your Region (June 2019-May 2020)**



Centers (centers with <10 complete cases not shown)

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. **\*\*\*** Indicates center's observed rate differs significantly from its expected rate

**Stroke or Death After TFEM CAS for Symptomatic Admissions by Region Across VQI (June 2019-May 2020)**



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

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. **\*\*\*** Indicates region's observed rate differs significantly from its expected rate.



## TCAR ASYMP: Stroke/Death

Procedures performed between June 1, 2019 and May 31, 2020

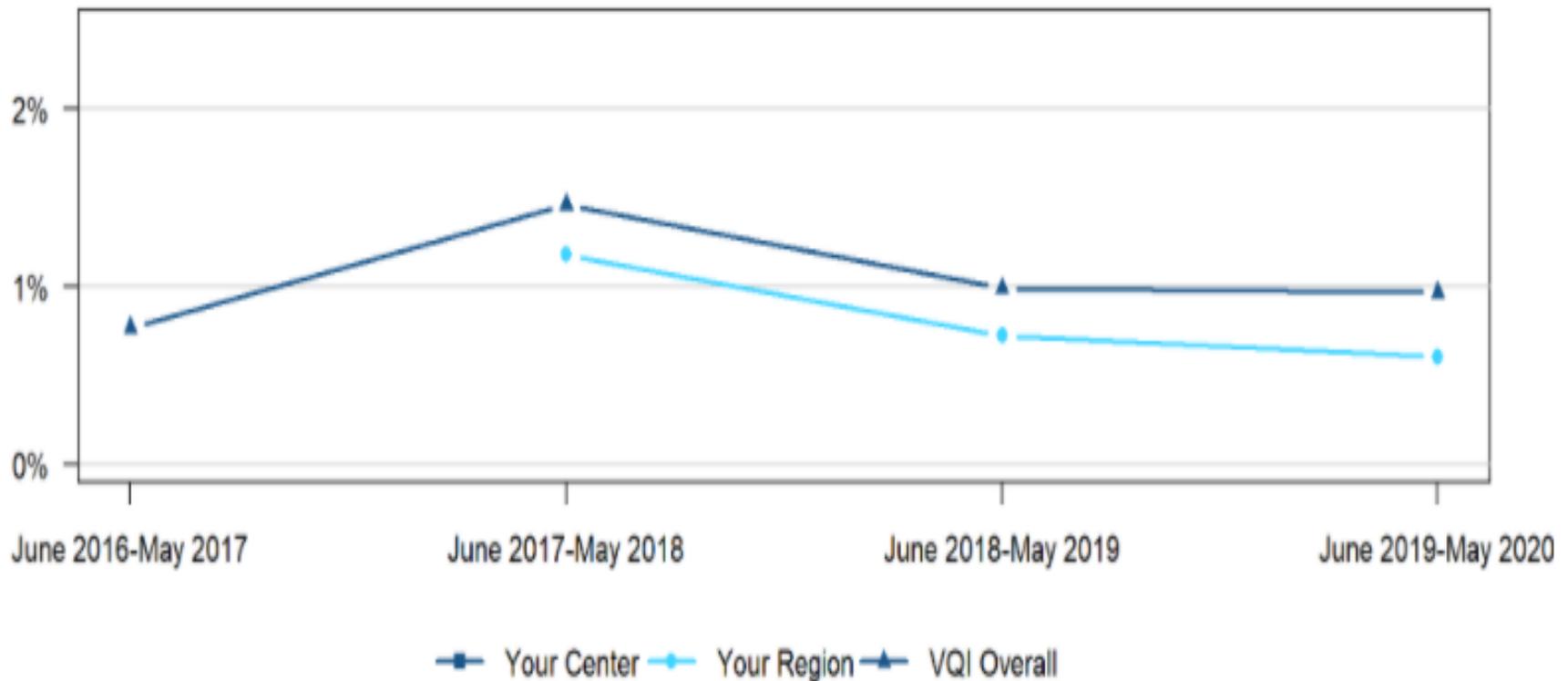
Includes asymptomatic admissions for TransCarotid Artery Revascularization (TCAR) only. Asymptomatic admissions are admissions where the patient had no ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar TIA 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 “Femoral” are also excluded.

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

	Your Center	Your Region	VQI Overall
Number of TCAR procedures meeting inclusion criteria		331	3627
Observed rate of stroke or death among procedures meeting inclusion criteria		0.6%	1%
Number of procedures with complete data*		306	3424
Observed rate of stroke or death among cases with complete data		0.7%	1%
Expected rate of stroke or death among cases with complete data*		1.1%	NA
P-value for comparison of observed and expected rates		0.78	NA

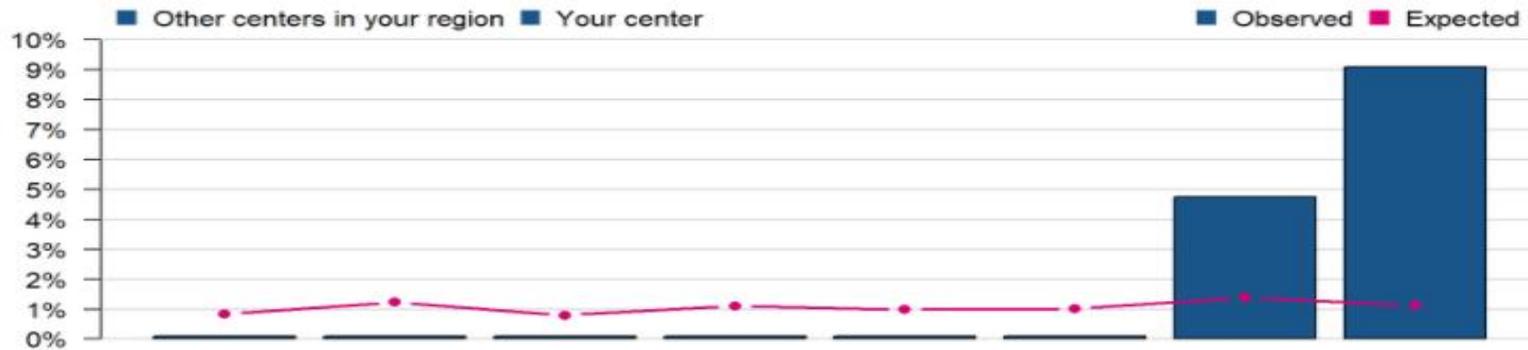
\*“Expected rate” is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. “Cases with complete data” include patients who have data on all of those factors.

### Stroke or Death After TCAR for Asymptomatic Admissions by Year



Rates shown are observed rates among cases meeting inclusion criteria.

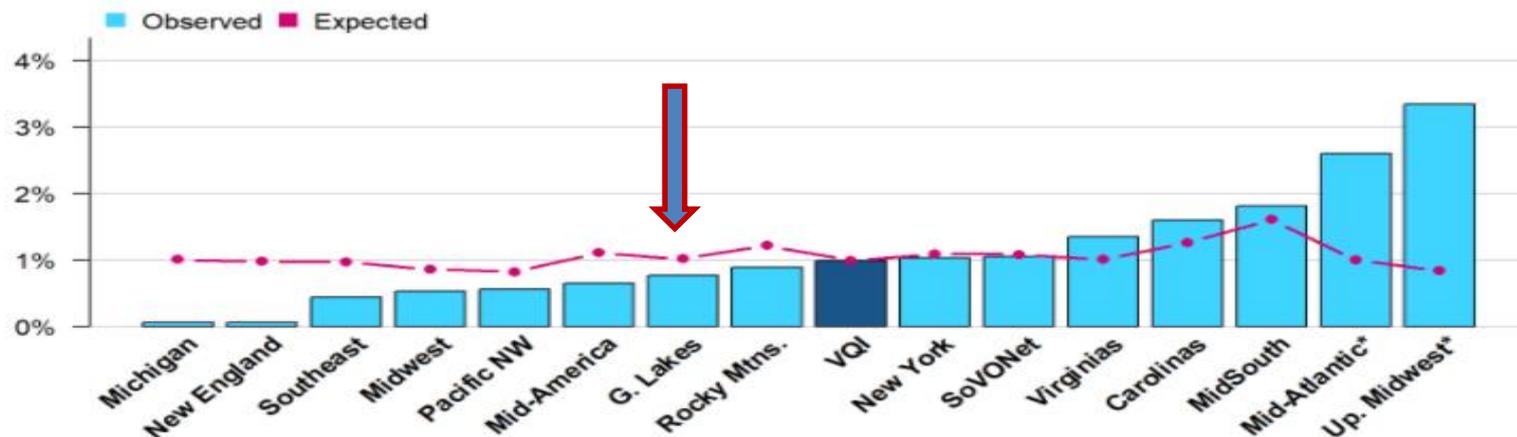
### Stroke or Death After TCAR for Asymptomatic Admissions in Your Region (June 2019-May 2020)



Centers (centers with <10 complete cases not shown)

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. "\*" Indicates center's observed rate differs significantly from its expected rate

### Stroke or Death After TCAR for Asymptomatic Admissions by Region Across VQI (June 2019-May 2020)



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

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. "\*" Indicates region's observed rate differs significantly from its expected rate.

## TCAR SYMP: Stroke/Death

Procedures performed between June 1, 2019 and May 31, 2020

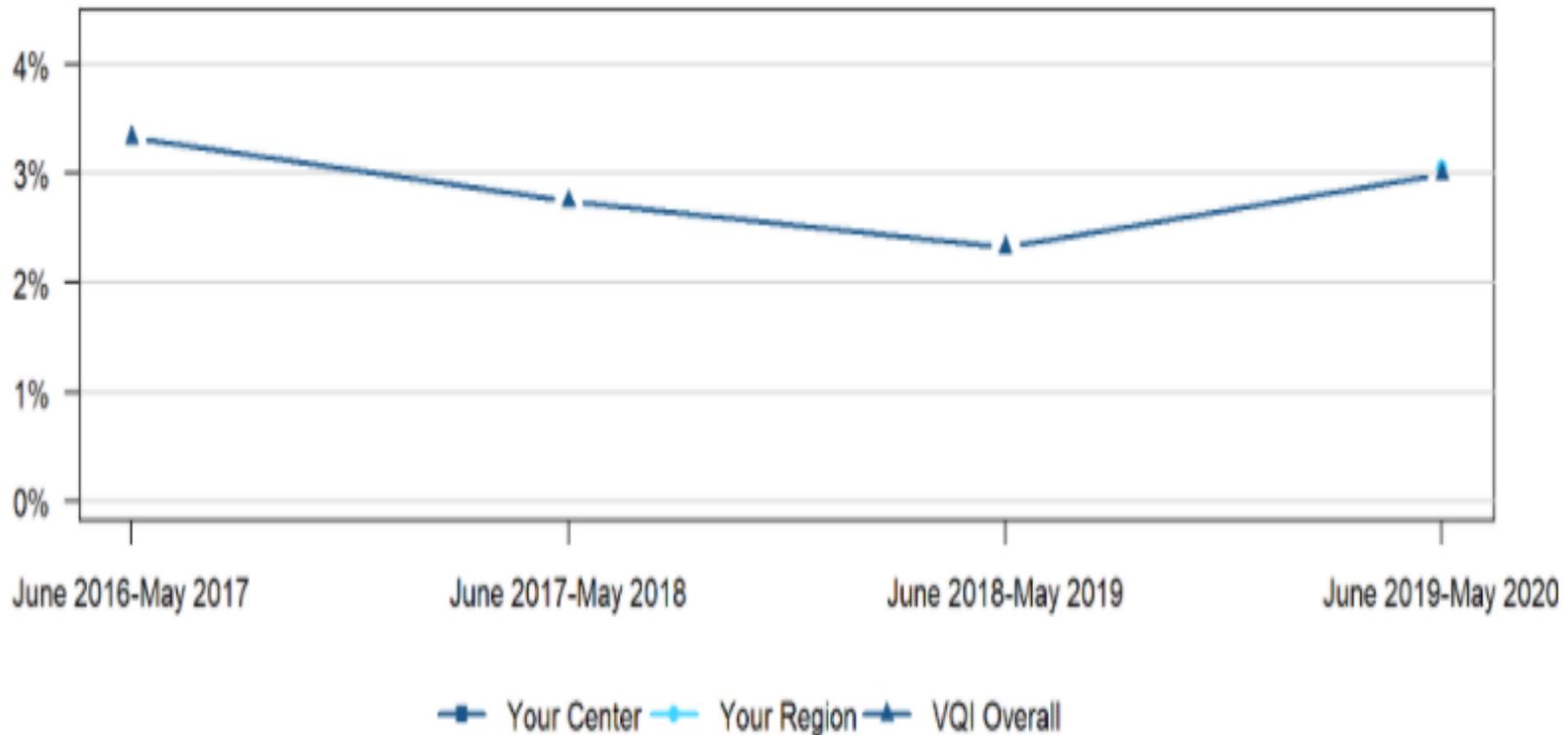
Includes symptomatic admissions for TransCarotid Artery Revascularization (TCAR) only. Symptomatic admissions are admissions where the patient had an ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar TIA or 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 “Femoral” are also excluded.

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

	Your Center	Your Region	VQI Overall
Number of TCAR procedures meeting inclusion criteria		164	1803
Observed rate of stroke or death among procedures meeting inclusion criteria		3%	3%
Number of procedures with complete data*		156	1737
Observed rate of stroke or death among cases with complete data		3.2%	3.1%
Expected rate of stroke or death among cases with complete data*		2.5%	NA
P-value for comparison of observed and expected rates		0.6	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 Admissions by Year



Rates shown are observed rates among cases meeting inclusion criteria.

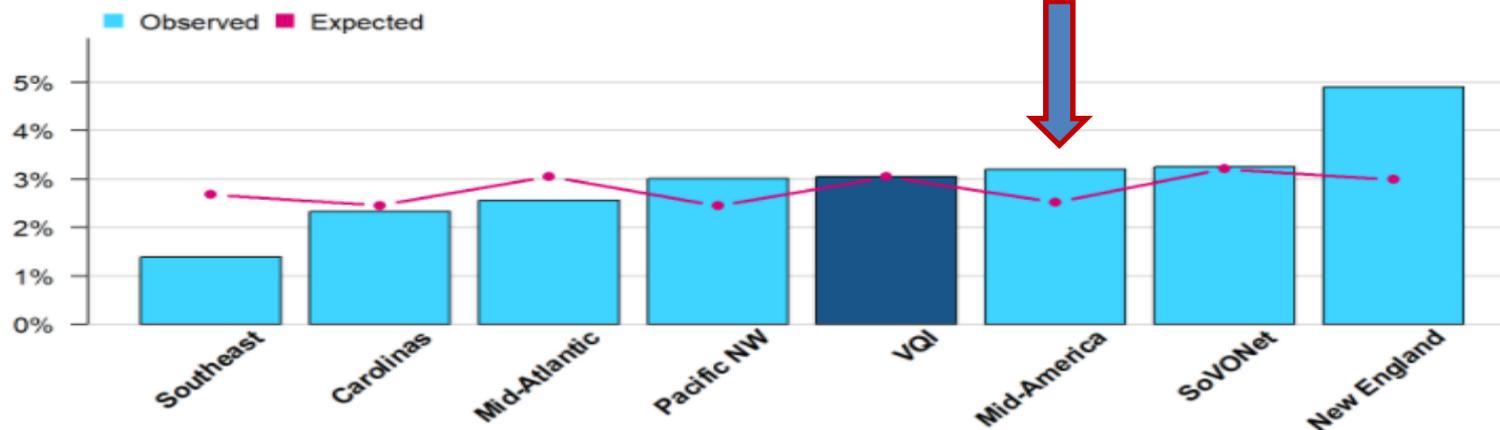
### Stroke or Death After TCAR for Symptomatic Admissions in Your Region (June 2019-May 2020)



Centers (centers with <10 complete cases not shown)

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. \*\*\* Indicates center's observed rate differs significantly from its expected rate

### Stroke or Death After TCAR for Symptomatic Admissions by Region Across VQI (June 2019-May 2020)



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

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. \*\*\* Indicates region's observed rate differs significantly from its expected rate.

## CEA ASYMP: Stroke/Death

Procedures performed between June 1, 2019 and May 31, 2020

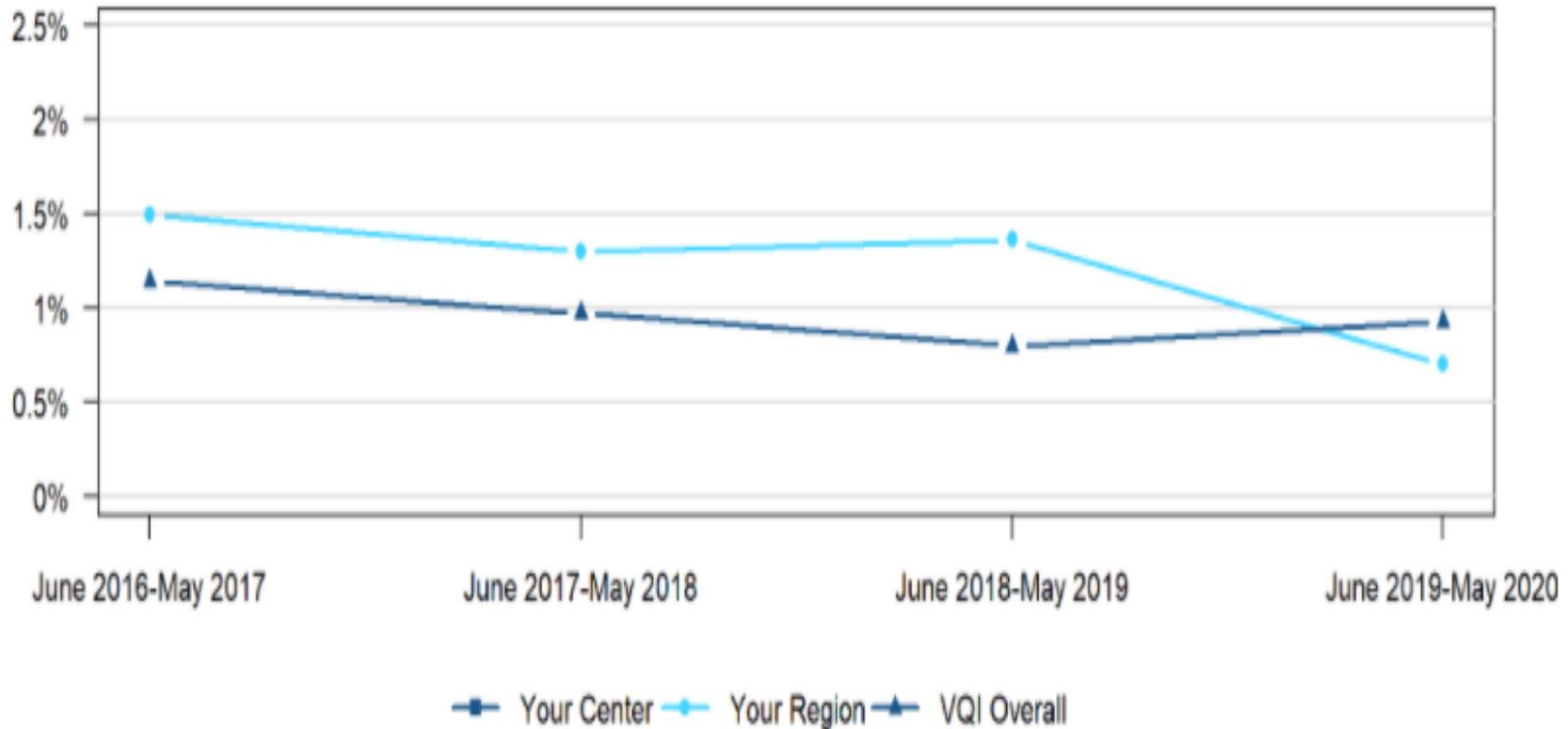
Includes asymptomatic admissions for Carotid Endarterectomy (CEA) only. Asymptomatic admissions are admissions where the patient had no ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior 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 admissions) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

	Your Center	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria		571	9499
Observed rate of stroke or death among procedures meeting inclusion criteria		0.7%	0.9%
Number of procedures with complete data*		551	9126
Observed rate of stroke or death among cases with complete data		0.7%	0.9%
Expected rate of stroke or death among cases with complete data*		0.9%	NA
P-value for comparison of observed and expected rates		1	NA

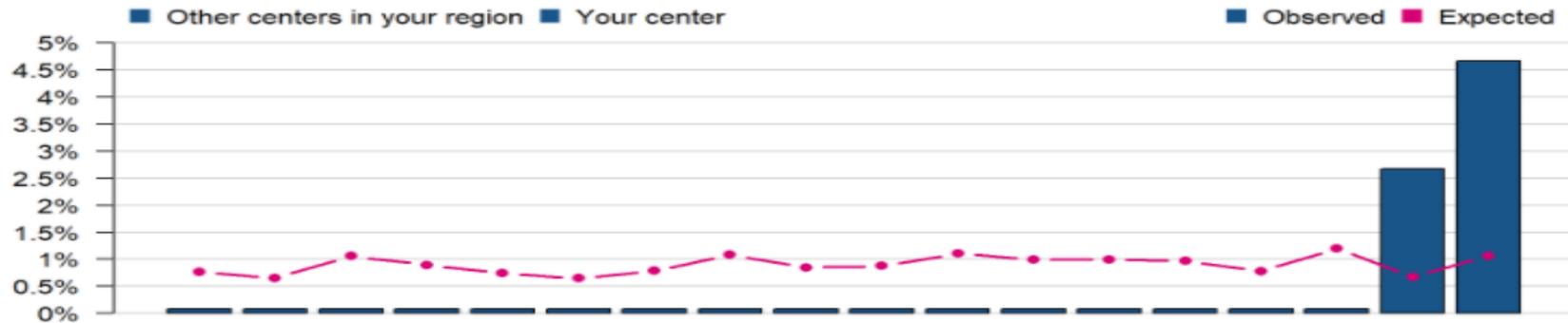
\*“Expected rate” is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. “Cases with complete data” include patients who have data on all of those factors.

### Stroke or Death After CEA for Asymptomatic Admissions by Year



Rates shown are observed rates among cases meeting inclusion criteria.

### Stroke or Death After CEA for Asymptomatic Admissions in Your Region (June 2019-May 2020)

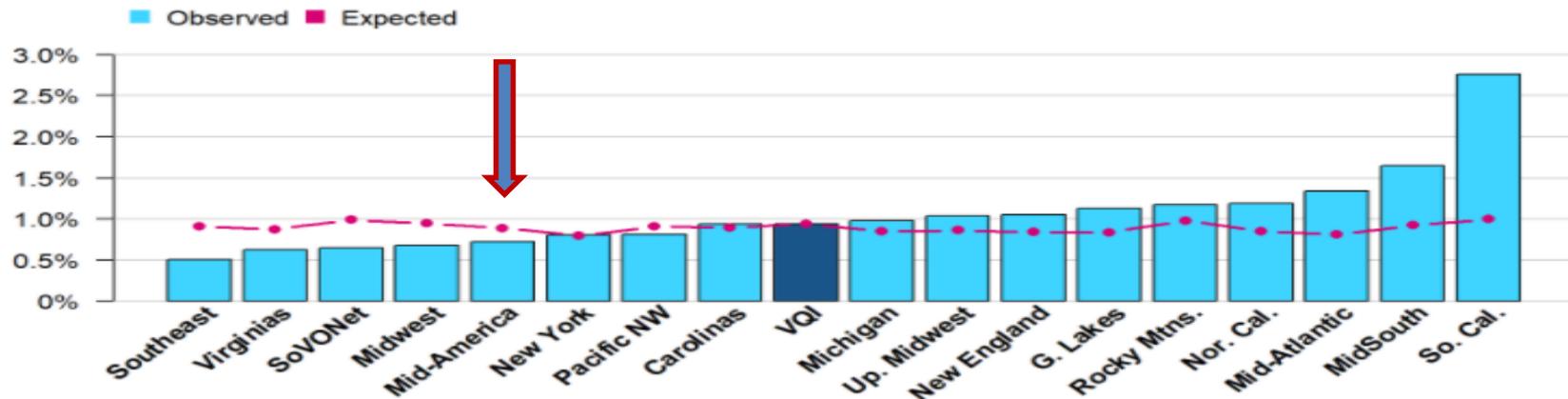


Centers (centers with <10 complete cases not shown)

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases.

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

### Stroke or Death After CEA for Asymptomatic Admissions by Region Across VQI (June 2019-May 2020)



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

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases.

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

## CEA ASYMP: Postop LOS>1 Day

Procedures performed between June 1, 2019 and May 31, 2020

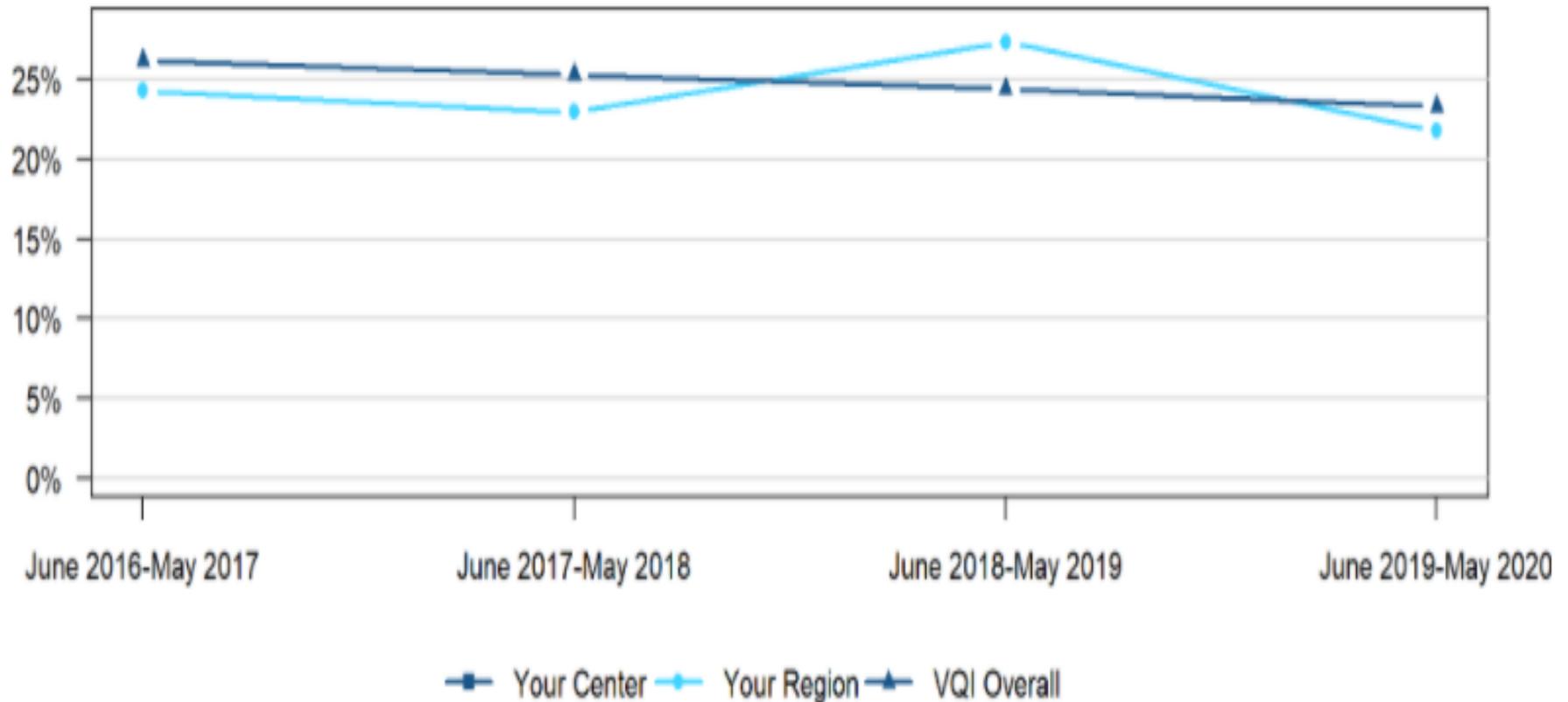
Includes asymptomatic admissions for Carotid Endarterectomy (CEA) only. Asymptomatic admissions are admissions where the patient had no ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior 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 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 admissions) meeting the inclusion criteria, and the observed and expected rates of postoperative LOS>1 Day for those cases.

	Your Center	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria		571	9498
Observed rate of LOS>1 day among procedures meeting inclusion criteria		21.7%	23.3%
Number of procedures with complete data*		555	9139
Observed rate of LOS>1 day among cases with complete data		21.3%	23.1%
Expected rate of LOS>1 day among cases with complete data*		24%	NA
P-value for comparison of observed and expected rates		0.15	NA

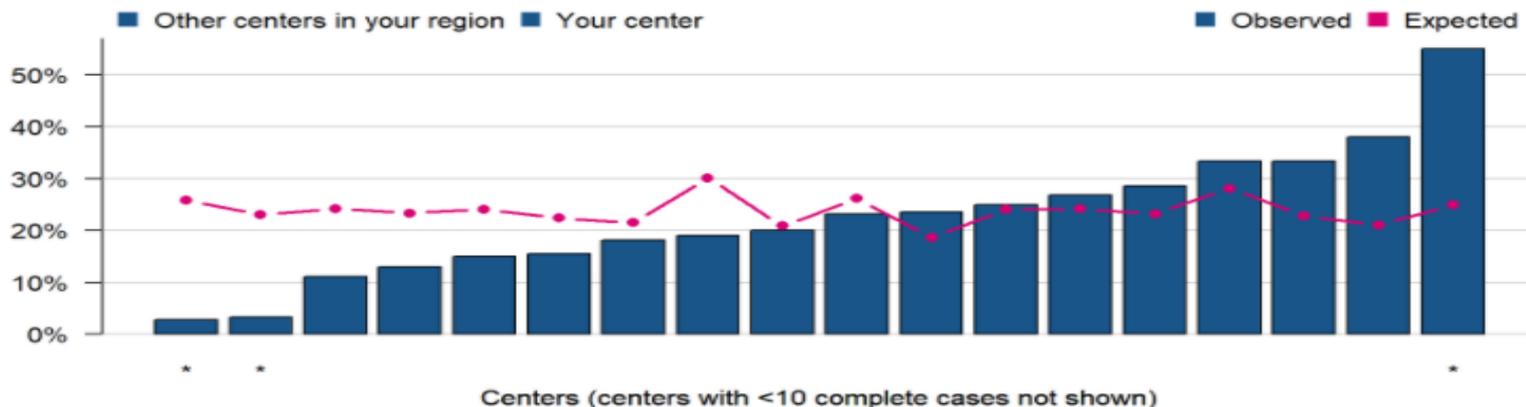
\*“Expected rate” is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. “Cases with complete data” include patients who have data on all of those factors.

## Postop LOS>1 Day after CEA for Asymptomatic Admissions by Year



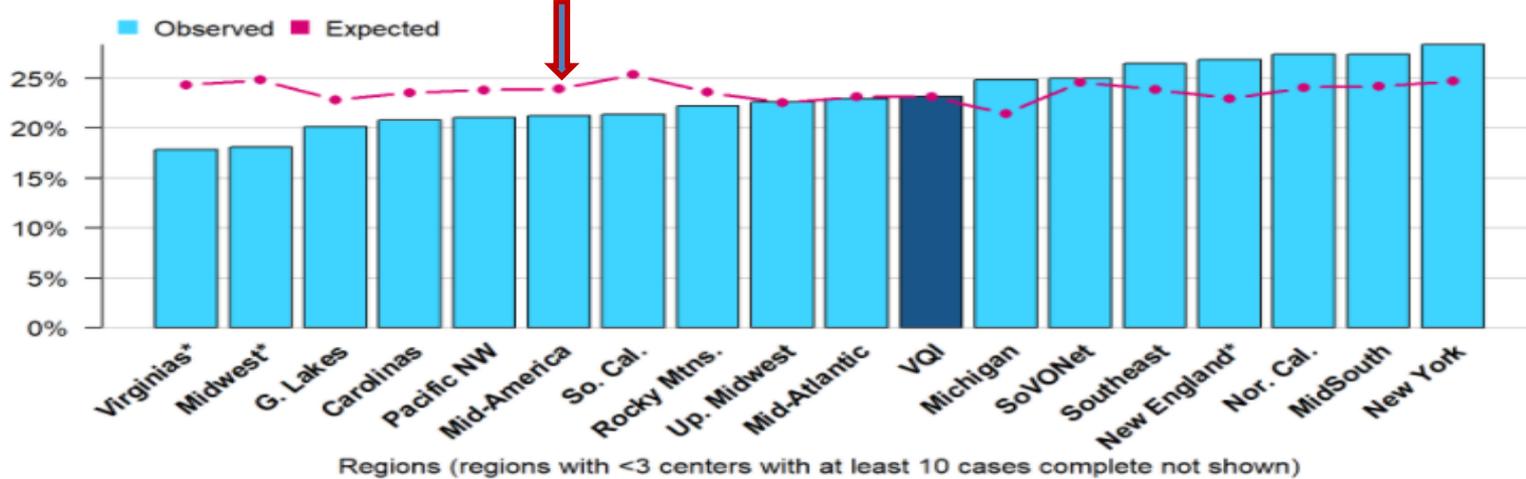
Rates shown are observed rates among cases meeting inclusion criteria.

### Postop LOS>1 Day after CEA for Asymptomatic Admissions in Your Region (June 2019-May 2020)



Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. "\*" Indicates center's observed rate differs significantly from its expected rate

### Postop LOS>1 Day after CEA for Asymptomatic Admissions by Region Across VQI (June 2019-May 2020)



Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. "\*" Indicates region's observed rate differs significantly from its expected rate.

## CEA SYMP: Stroke/Death

Procedures performed between June 1, 2019 and May 31, 2020

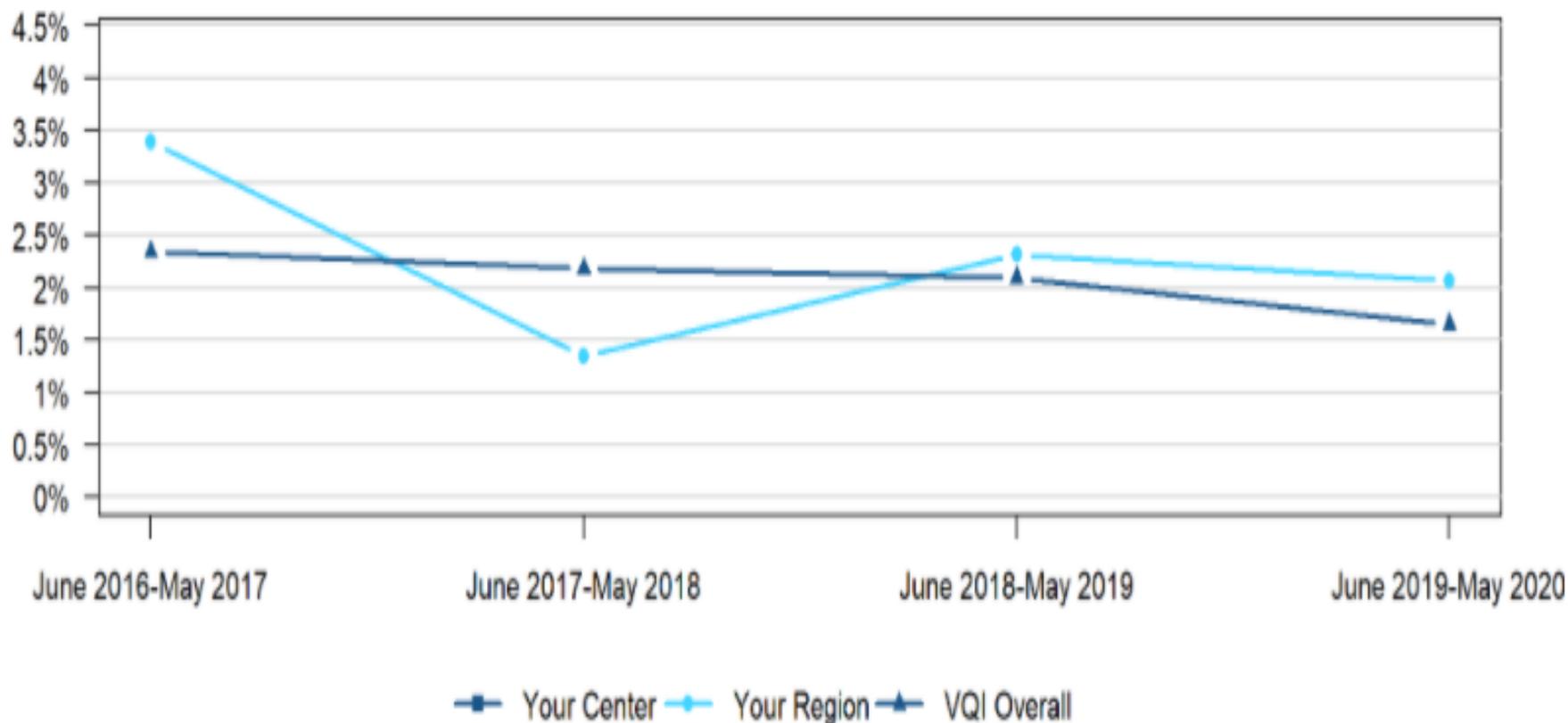
Includes symptomatic admissions for Carotid Endarterectomy (CEA) only. Symptomatic admissions are admissions where the patient had an ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral 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 admissions) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

	Your Center	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria		339	4783
Observed rate of stroke or death among procedures meeting inclusion criteria		2.1%	1.7%
Number of procedures with complete data*		328	4612
Observed rate of stroke or death among cases with complete data		1.8%	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		0.83	NA

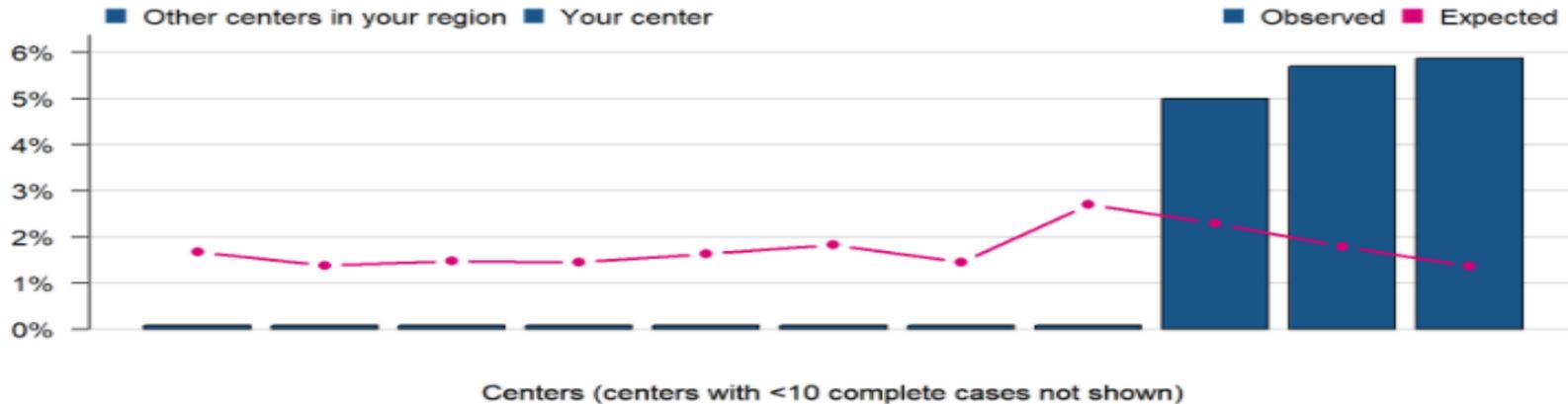
\*“Expected rate” is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. “Cases with complete data” include patients who have data on all of those factors.

## Stroke or Death After CEA for Symptomatic Admissions by Year



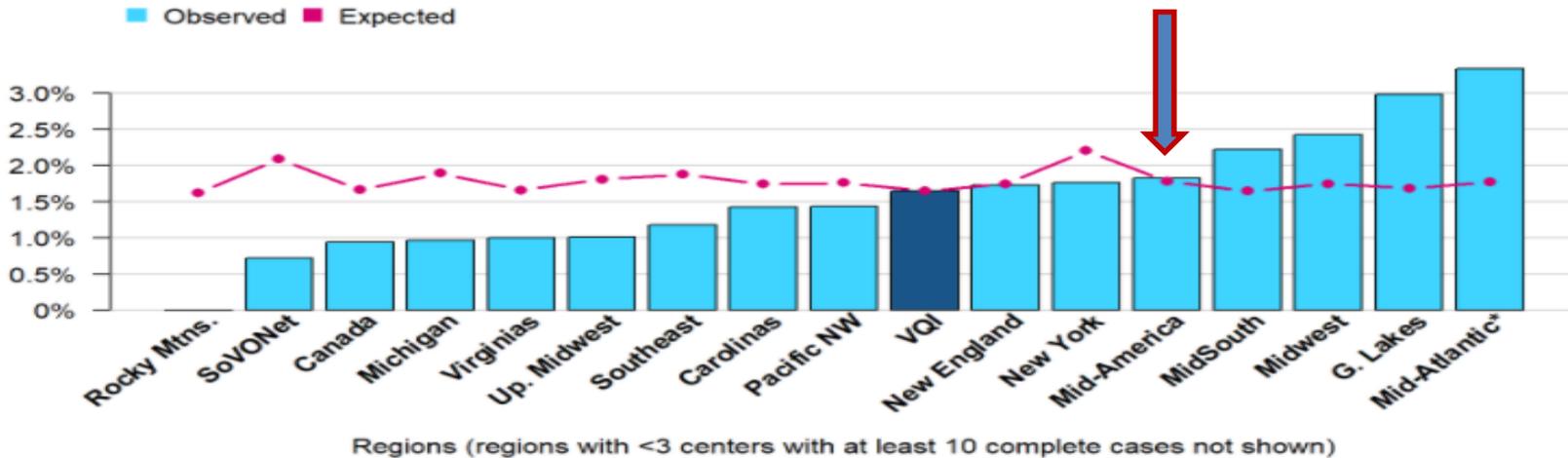
Rates shown are observed rates among cases meeting inclusion criteria.

**Stroke or Death After CEA for Symptomatic Admissions in Your Region (June 2019-May 2020)**



Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. **\*\*\*** Indicates center's observed rate differs significantly from its expected rate

**Stroke or Death After CEA for Symptomatic Admissions by Region Across VQI (June 2019-May 2020)**



Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. **\*\*\*** Indicates region's observed rate differs significantly from its expected rate.

## CEA SYMP: Postop LOS>1 Day

Procedures performed between June 1, 2019 and May 31, 2020

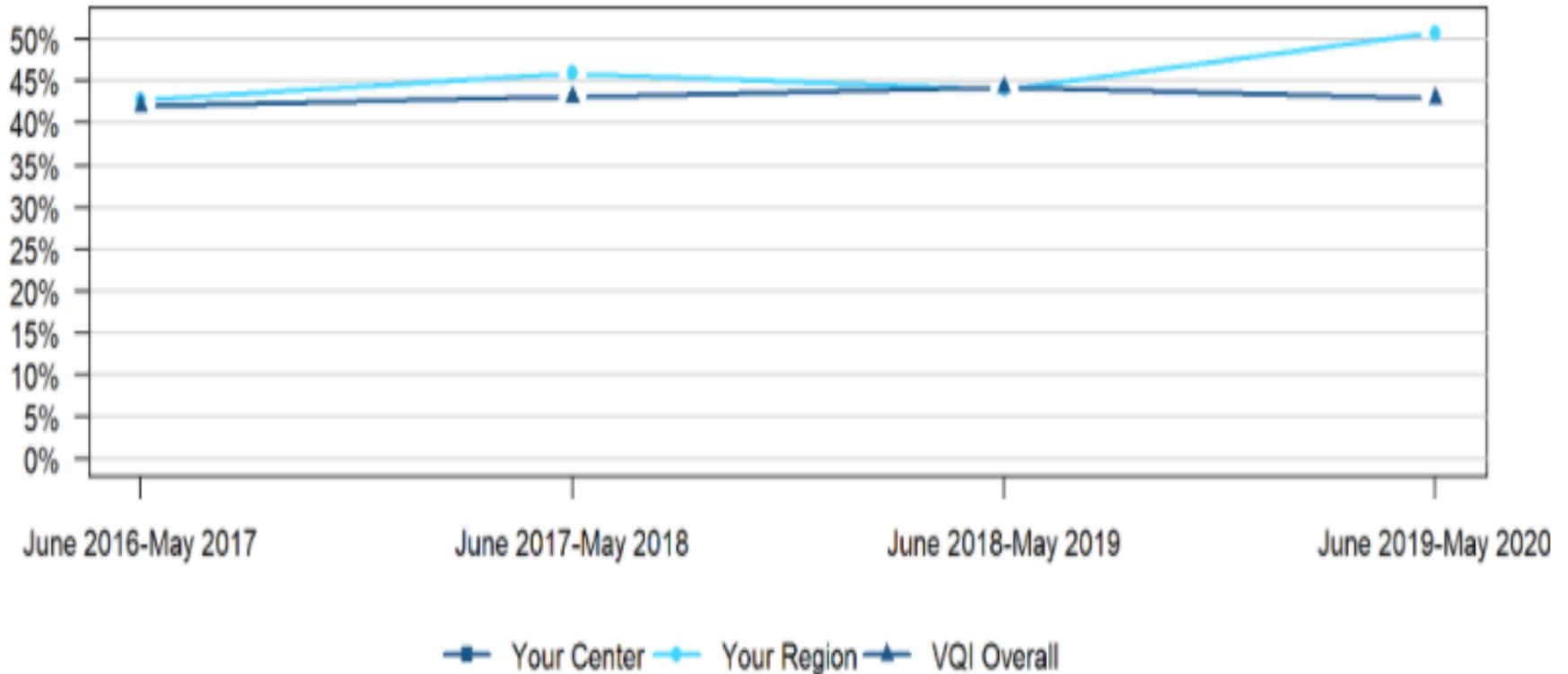
Includes symptomatic admissions for Carotid Endarterectomy (CEA) only. Symptomatic admissions are admissions where the patient had an ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral 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 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 admissions) meeting the inclusion criteria, and the observed and expected rates of postoperative LOS>1 Day for those cases.

	Your Center	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria		339	4784
Observed rate of LOS>1 day among procedures meeting inclusion criteria		50.7%	43%
Number of procedures with complete data*		329	4620
Observed rate of LOS>1 day among cases with complete data		50.5%	42.7%
Expected rate of LOS>1 day among cases with complete data*		44.4%	NA
P-value for comparison of observed and expected rates		0.03	NA

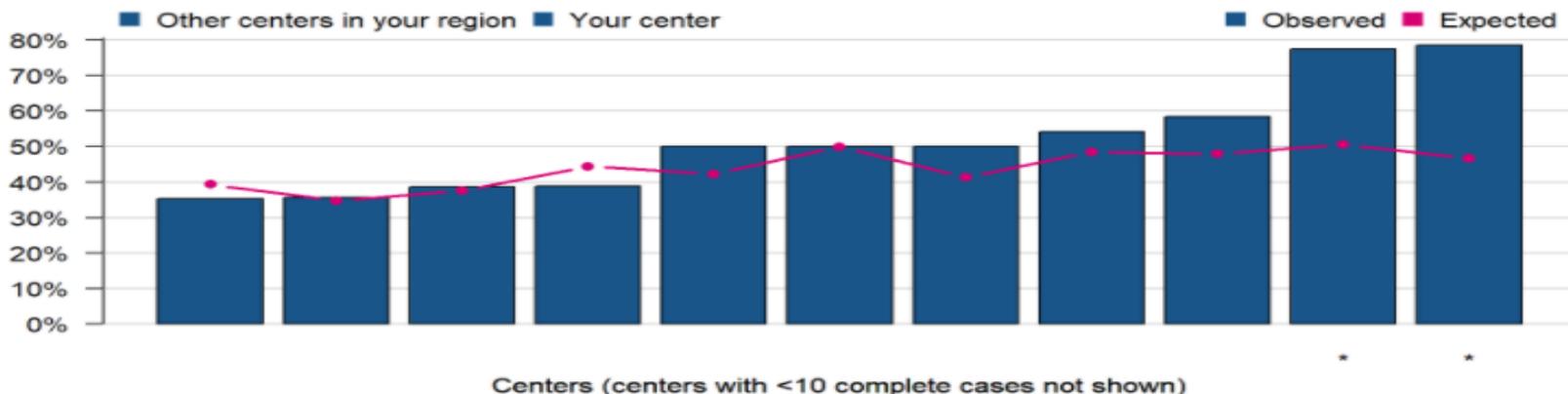
\*“Expected rate” is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. “Cases with complete data” include patients who have data on all of those factors.

### Postop LOS>1 Day after CEA for Symptomatic Admissions by Year



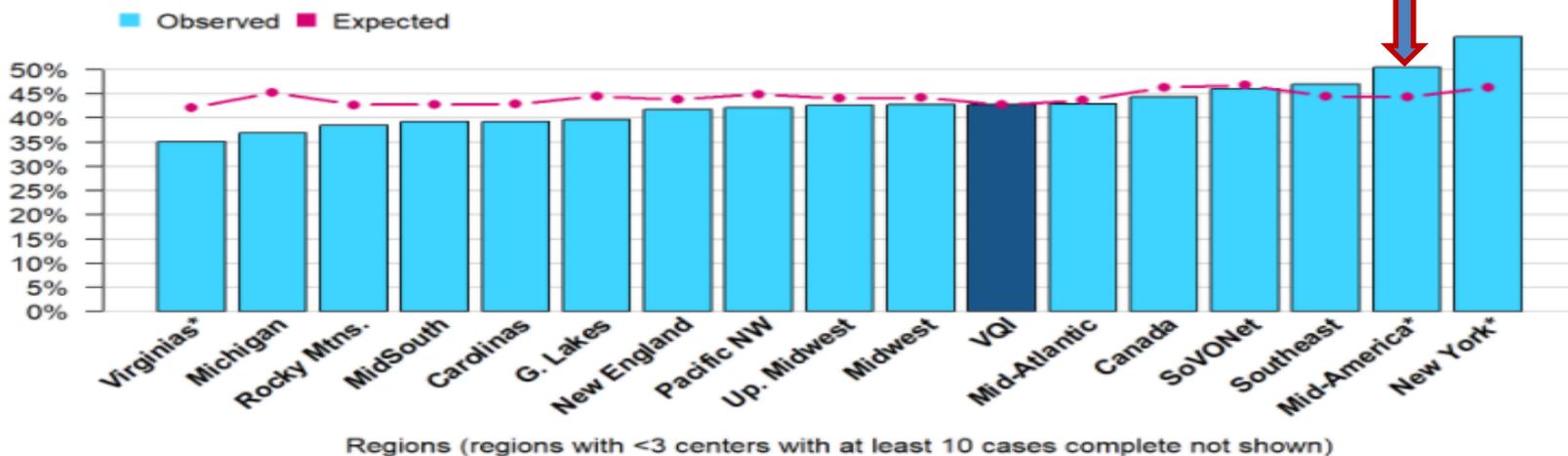
Rates shown are observed rates among cases meeting inclusion criteria.

### Postop LOS>1 Day after CEA for Symptomatic Admissions in Your Region (June 2019-May 2020)



Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. **\*\*\*** Indicates center's observed rate differs significantly from its expected rate

### Postop LOS>1 Day after CEA for Symptomatic Admissions by Region Across VQI (June 2019-May 2020)



Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. **\*\*\*** Indicates region's observed rate differs significantly from its expected rate.

## EVAR: Postop LOS>2 Days

Procedures performed between June 1, 2019 and May 31, 2020

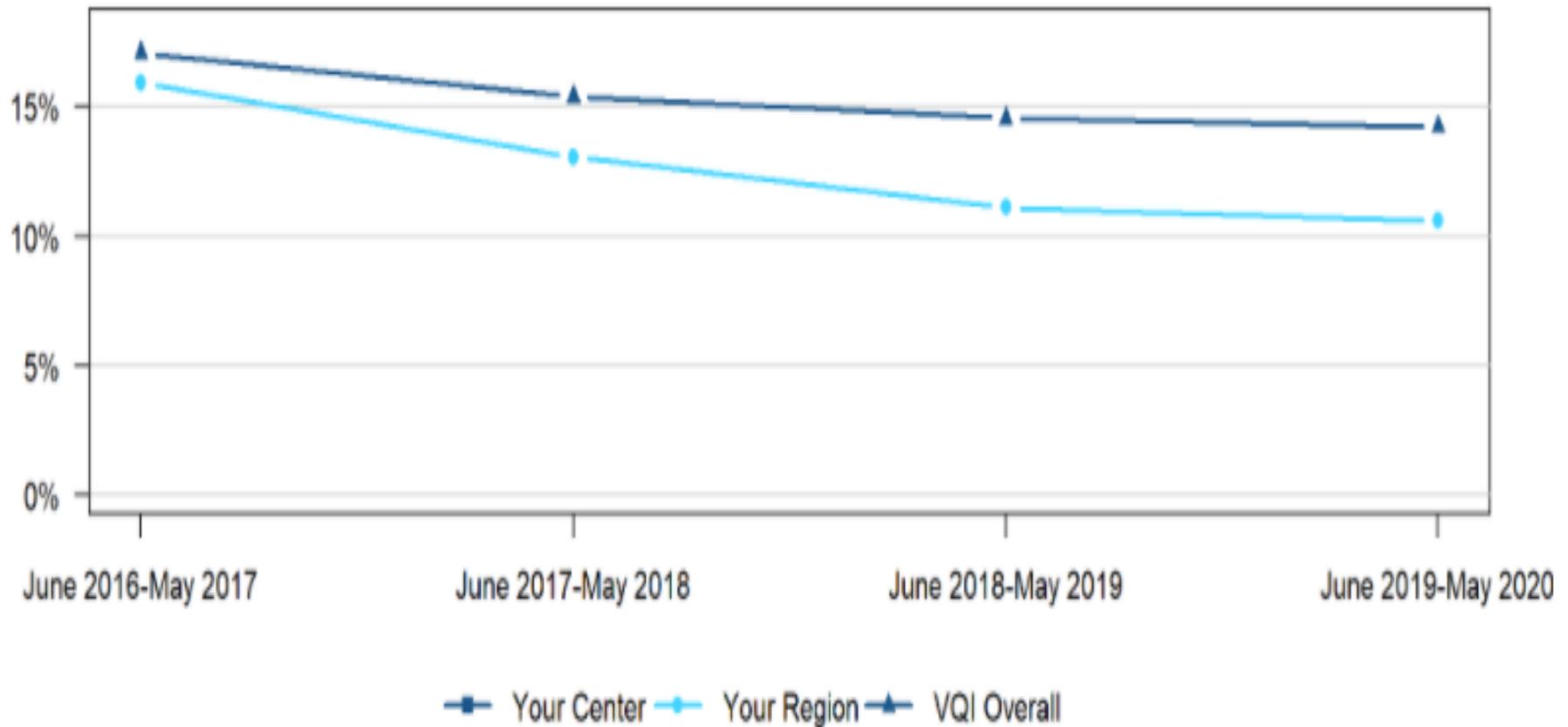
Includes Endovascular AAA Repair (EVAR) procedures only. Excludes any procedure with ruptured aneurysm, patients with prior aortic surgery, or patients transferred from another hospital. Procedures where in-hospital death occurred with postoperative LOS $\leq$ 2 are also excluded. Postoperative LOS is 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 Center	Your Region	VQI Overall
Number of EVAR procedures meeting inclusion criteria		312	5664
Observed rate of LOS>2 days among procedures meeting inclusion criteria		10.6%	14.2%
Number of procedures with complete data*		301	5150
Observed rate of LOS>2 days among cases with complete data		10.6%	14.1%
Expected rate of LOS>2 days among cases with complete data*		13.2%	NA
P-value for comparison of observed and expected rates		0.2	NA

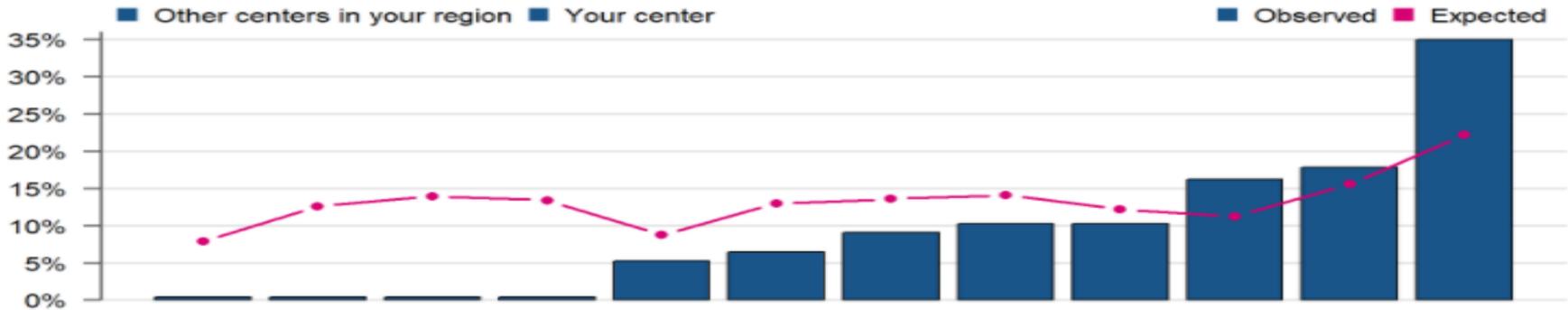
\*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.

### Postop LOS >2 Days after EVAR by Year



Rates shown are observed rates among cases meeting inclusion criteria.

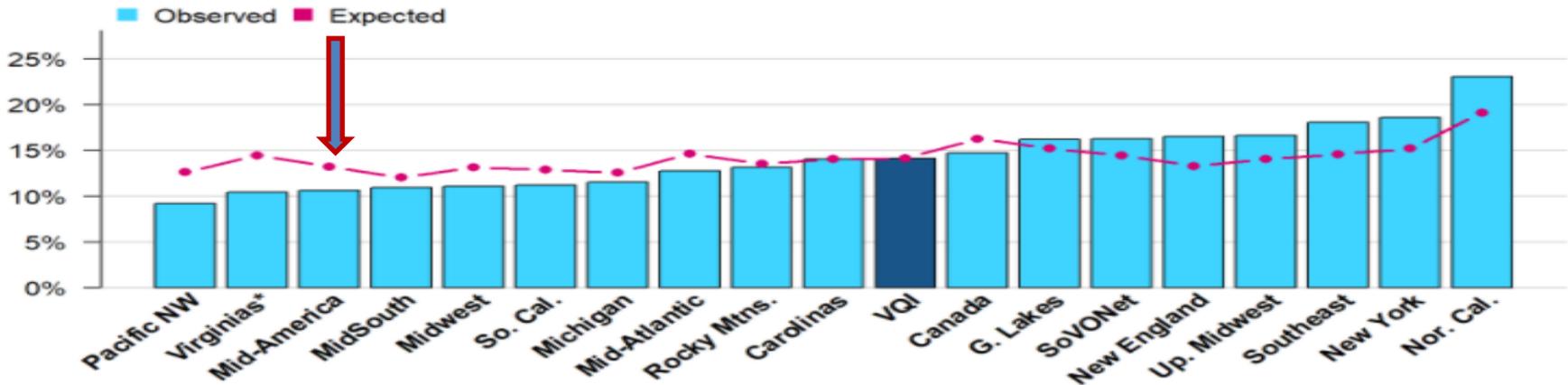
### Postop LOS>2 Days after EVAR in Your Region (June 2019-May 2020)



Centers (centers with <10 complete cases not shown)

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. "\*" Indicates center's observed rate differs significantly from its expected rate

### Postop LOS>2 Days after EVAR by Region Across VQI (June 2019-May 2020)



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

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. "\*" Indicates region's observed rate differs significantly from its expected rate.

# EVAR: Sac Diameter Reporting

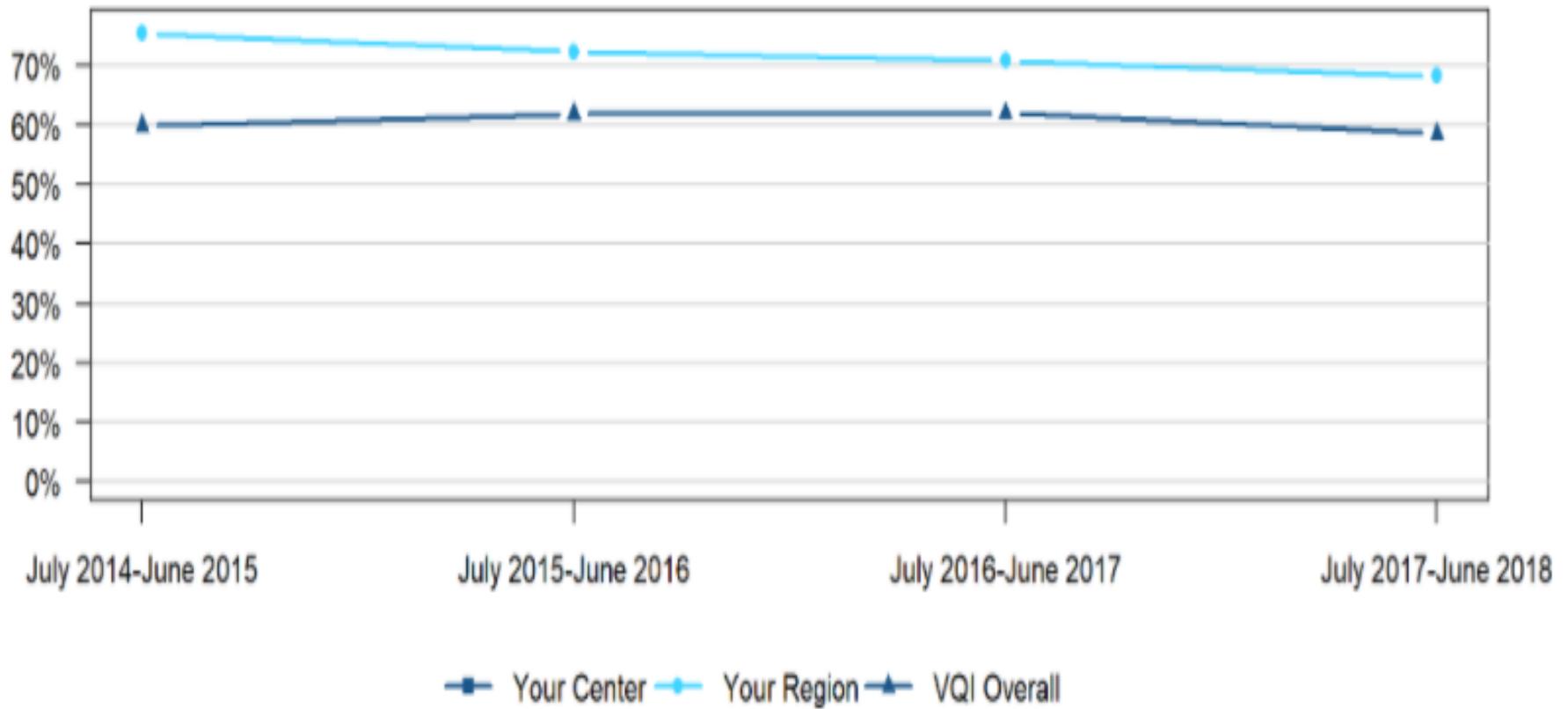
Procedures performed between July 1, 2017 and June 30, 2018

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

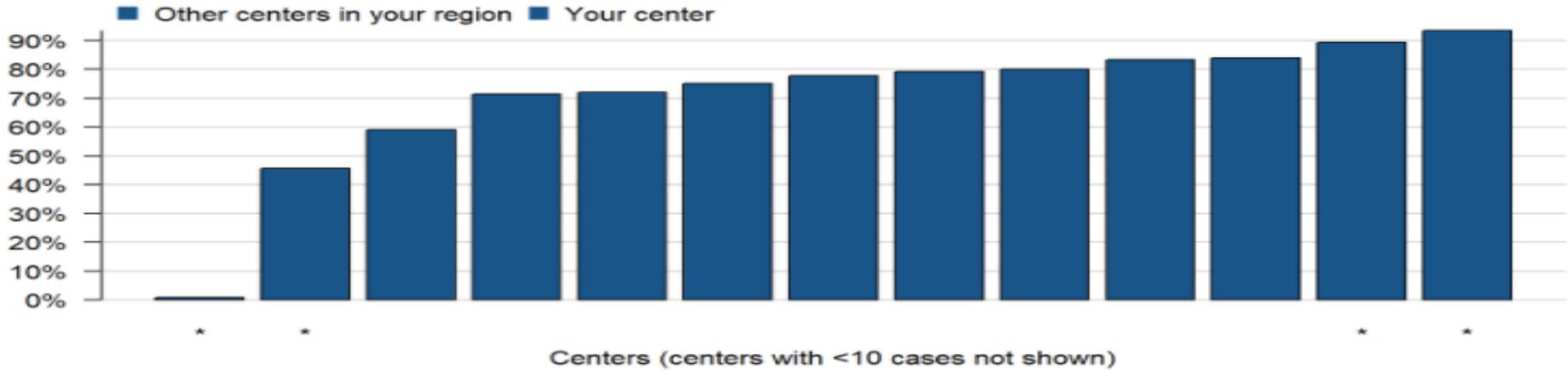
The table below gives the number of EVAR procedures meeting the inclusion criteria, and the percentage of those procedures where a sac diameter was reported between 9 and 21 months post-procedure.

	Your Center	Your Region	VQI Overall
Number of EVAR procedures meeting inclusion criteria		381	6821
Percentage with sac diameter reported between 9 and 21 months post-procedure		68.2%	58.6%

### EVAR Sac Diameter Reporting by Year

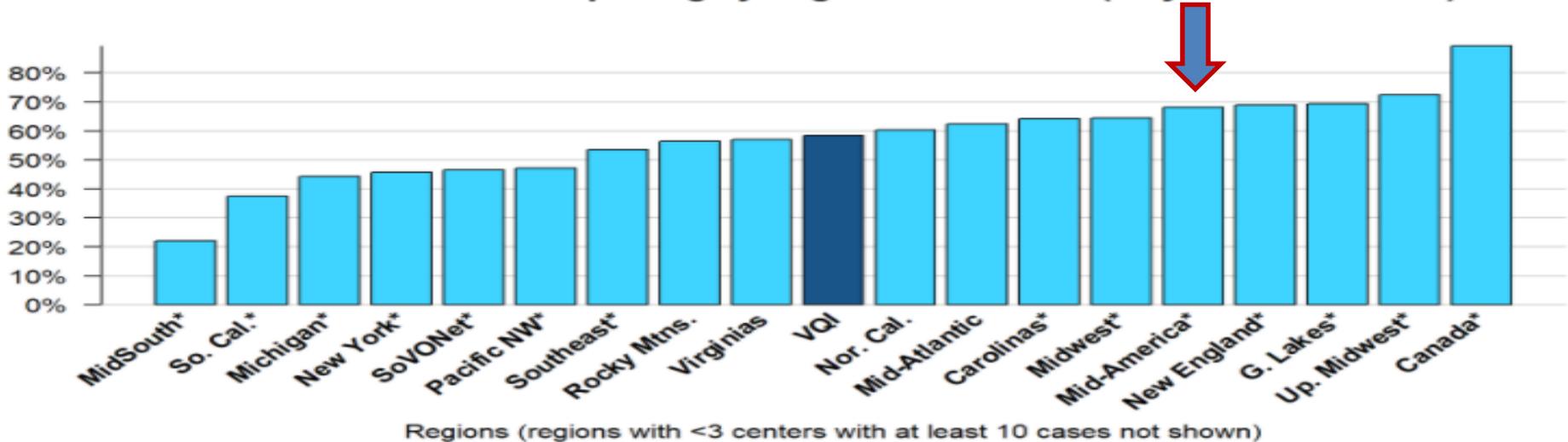


### EVAR Sac Diameter Reporting in Your Region (July 2017-June 2018)



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

### EVAR Sac Diameter Reporting by Region Across VQI (July 2017-June 2018)



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

## EVAR: SVS Sac Size Guideline

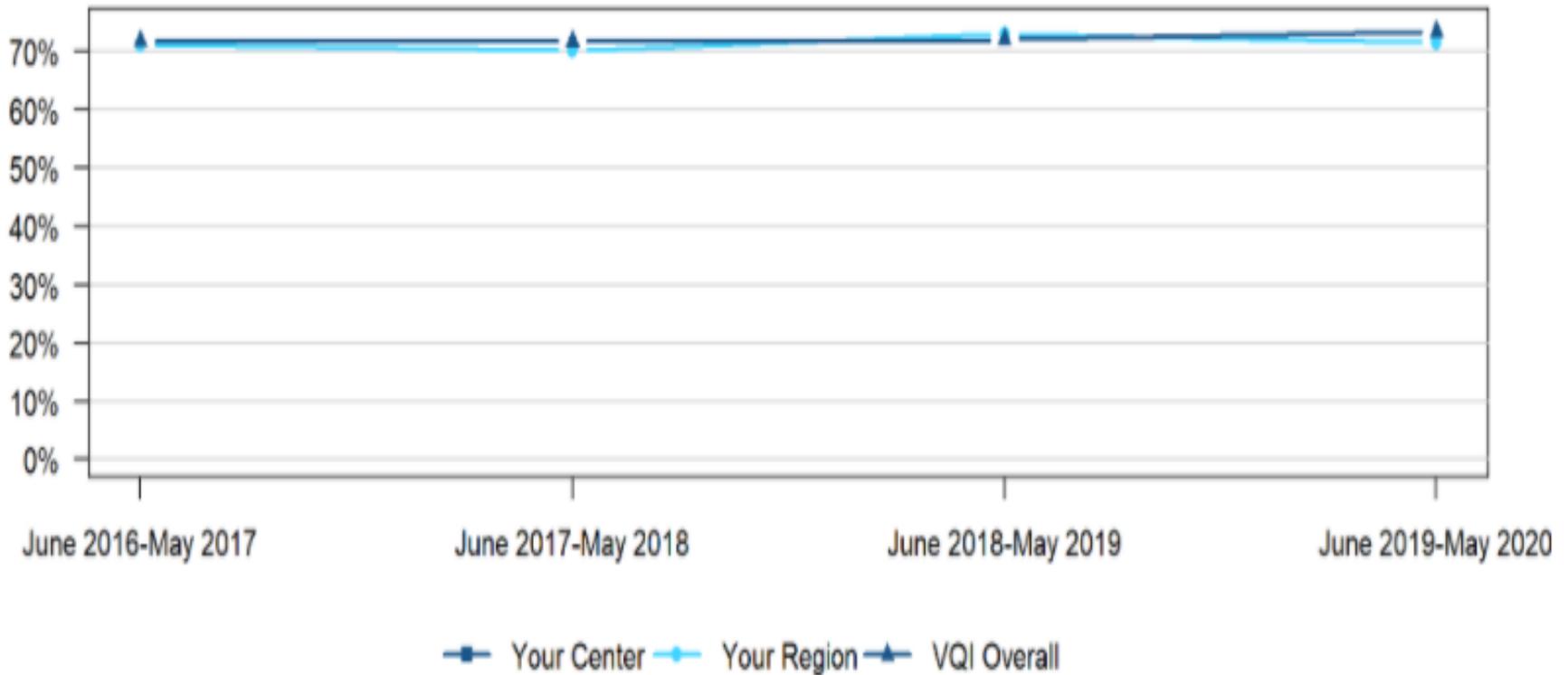
Procedures performed between June 1, 2019 and May 31, 2020

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

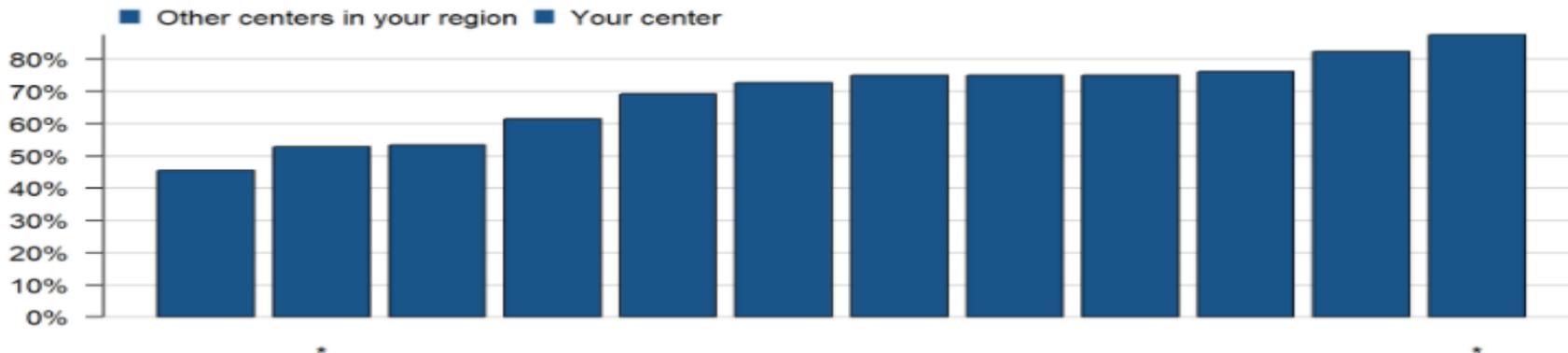
The table below gives the number of EVAR procedures meeting the inclusion criteria, and the percentage of those procedures meeting the SVS sac size guideline.

	Your Center	Your Region	VQI Overall
Number of EVAR procedures meeting inclusion criteria		306	5426
Percentage meeting SVS sac size guideline		71.6%	73.4%

### EVAR Sac Size Guideline by Year



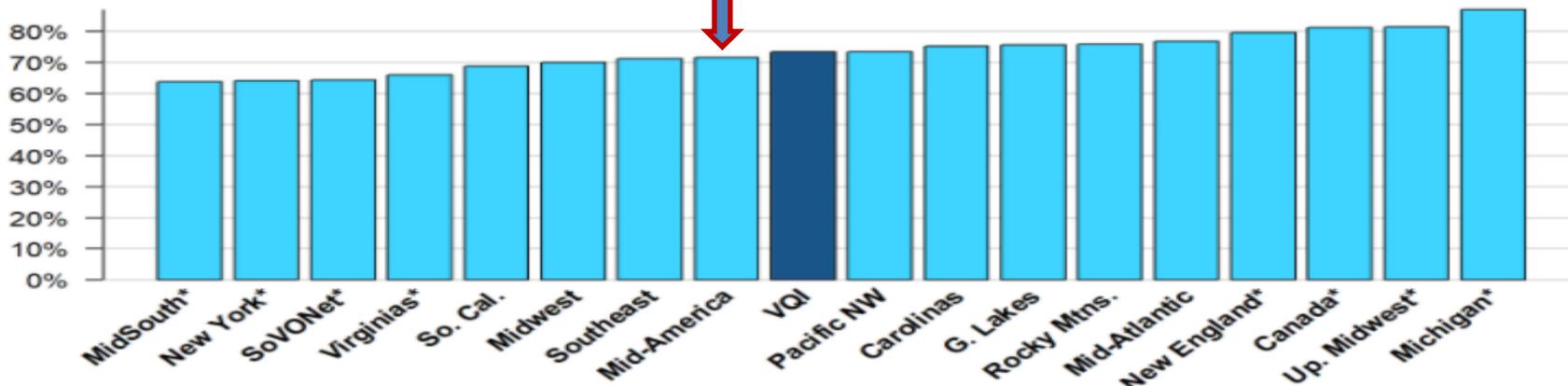
### EVAR Sac Size Guideline in Your Region (June 2019-May 2020)



\* Centers (centers with <10 cases not shown)

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

### EVAR Sac Size Guideline by Region Across VQI (June 2019-May 2020)



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

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

## OAAA: In-Hospital Mortality

Procedures performed between June 1, 2019 and May 31, 2020

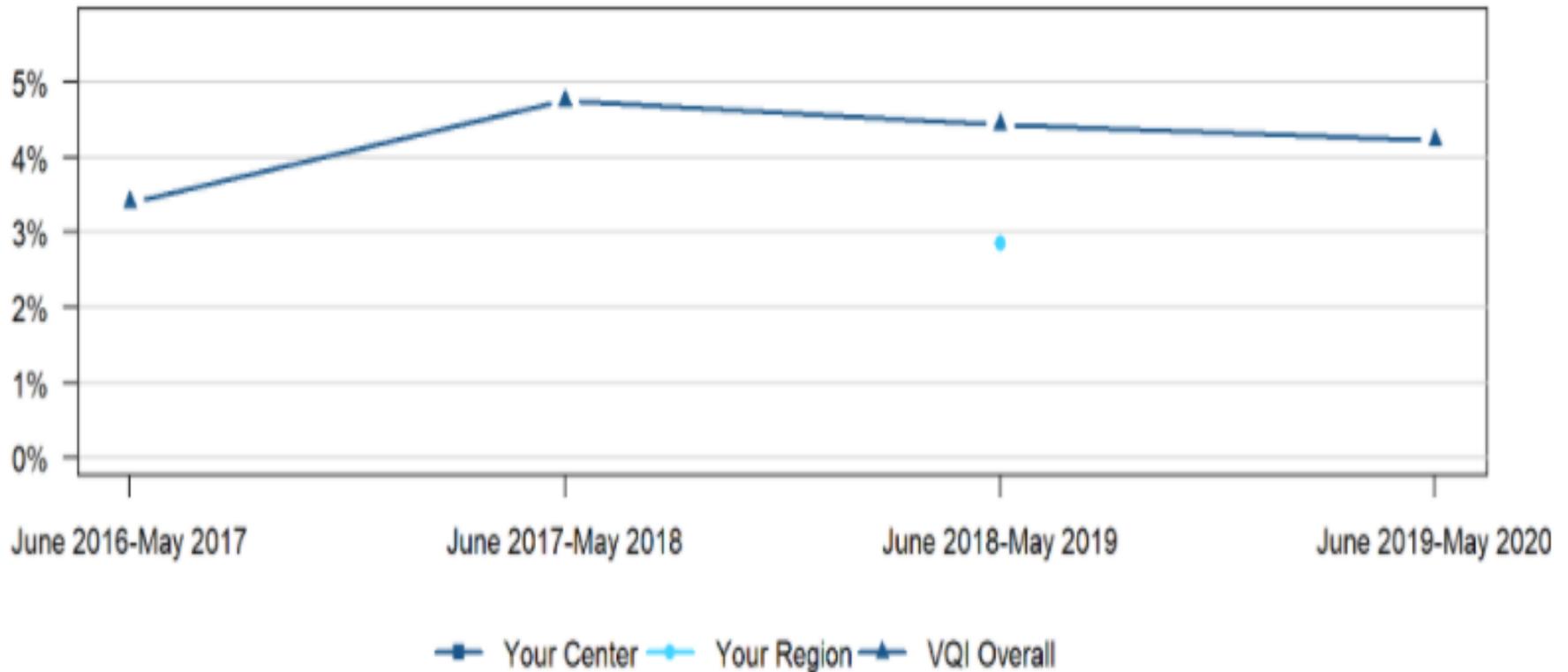
Includes Open AAA (OAAA) procedures only. Excludes any patient with a ruptured aneurysm.

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

	Your Center	Your Region	VQI Overall
Number of OAAA procedures meeting inclusion criteria		NA (<3 centers)	970
Observed rate of in-hospital death among procedures meeting inclusion criteria			4.2%
Number of procedures with complete data*			916
Observed rate of in-hospital death among cases with complete data			4.3%
Expected rate of in-hospital death among cases with complete data*			NA
P-value for comparison of observed and expected rates			NA
Observed rate of in-hospital death among procedures with infrarenal proximal clamp			2.9%
Observed rate of in-hospital death among procedures with suprarenal proximal clamp			5.7%

\*"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.

### In-Hospital Death After OAAA by Year



Rates shown are observed rates among cases meeting inclusion criteria.

### In-Hospital Death After OAAA in Your Region (June 2019-May 2020)



Centers (centers with <10 complete cases not shown)

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases.

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

### In-Hospital Death After OAAA by Region Across VQI (June 2019-May 2020)



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

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases.

\*\*\* indicates region's observed rate differs significantly from its expected rate.

## PVI: ABI/Toe Pressure

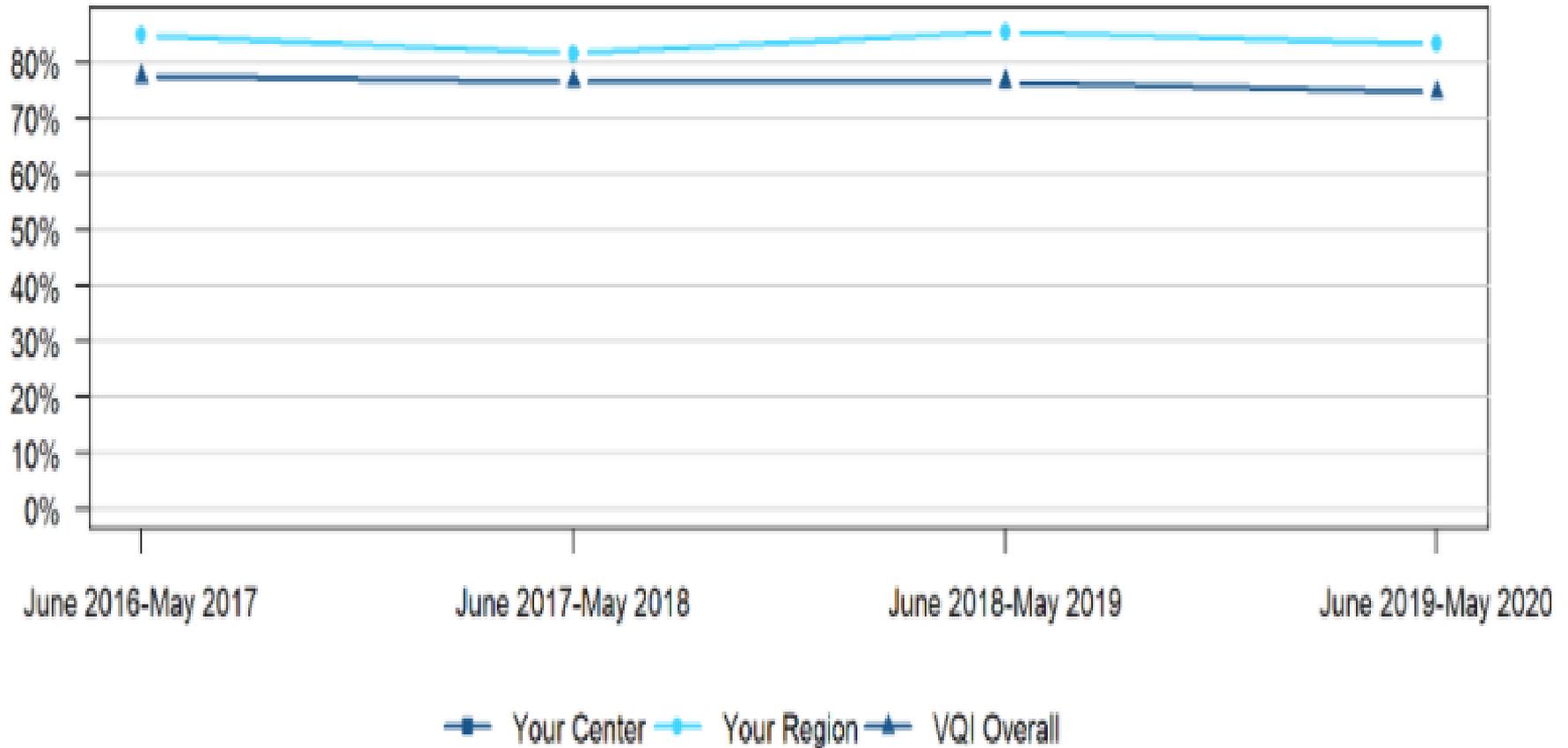
Procedures performed between June 1, 2019 and May 31, 2020

Includes Peripheral Vascular Intervention (PVI) procedures for claudication only. “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.

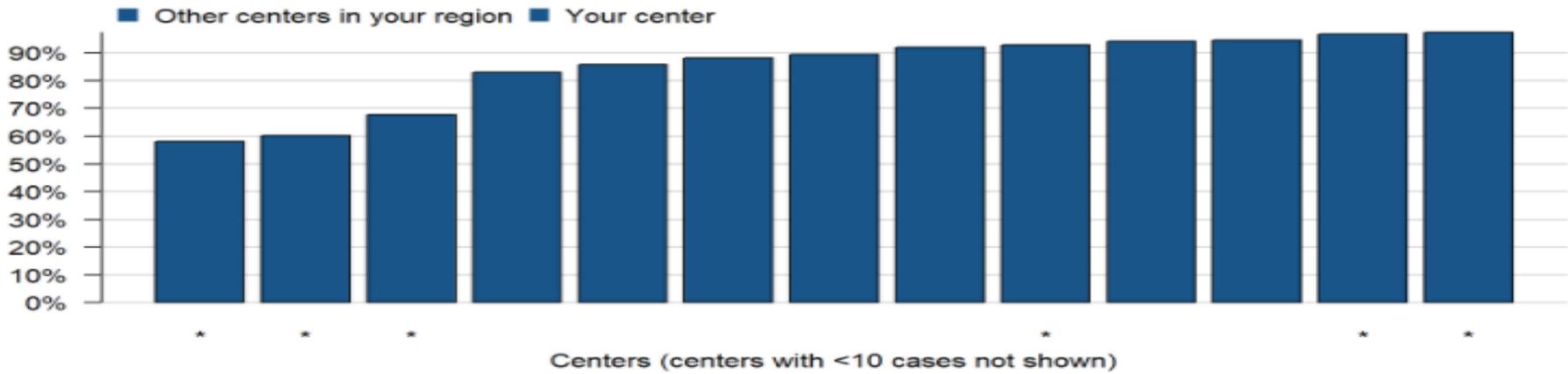
The table below gives the number of PVI procedures meeting the inclusion criteria, and the percentage of those procedures in which an ABI or toe pressure was assessed prior to PVI.

	Your Center	Your Region	VQI Overall
Number of PVI procedures meeting inclusion criteria		1163	13412
Percentage with ABI/toe pressure assessment		83.3%	74.6%
Percentage who were current smokers		34.6%	36.5%

## ABI/Toe Pressure Assessment Before PVI by Year

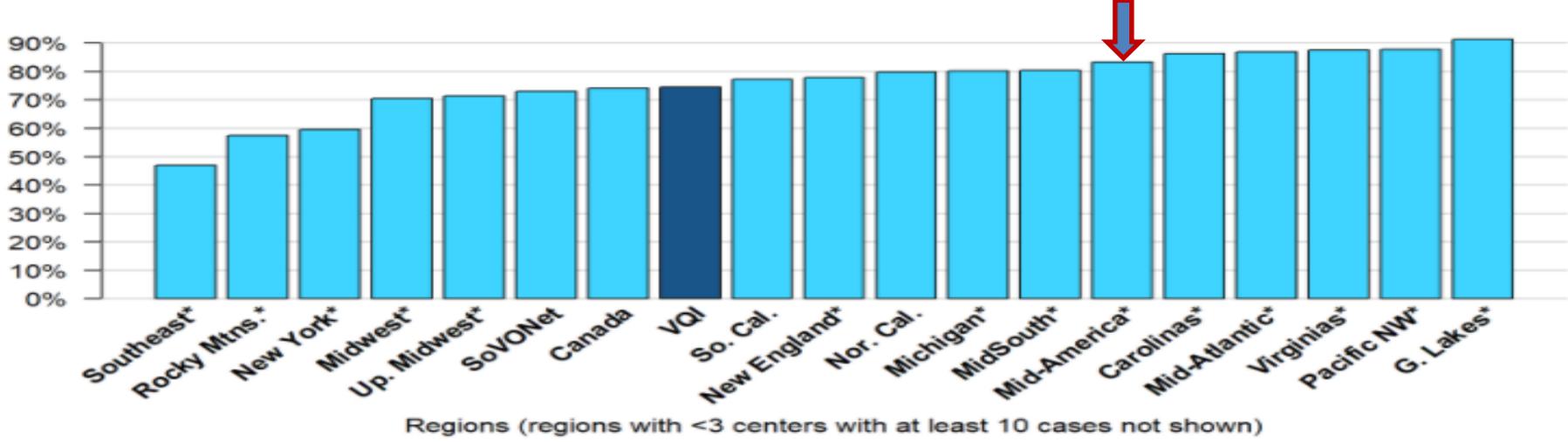


### ABI/Toe Pressure Assessment Before PVI in Your Region (June 2019-May 2020)



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

### ABI/Toe Pressure Assessment Before PVI by Region Across VQI (June 2019-May 2020)



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

# INFRA: Major Complications

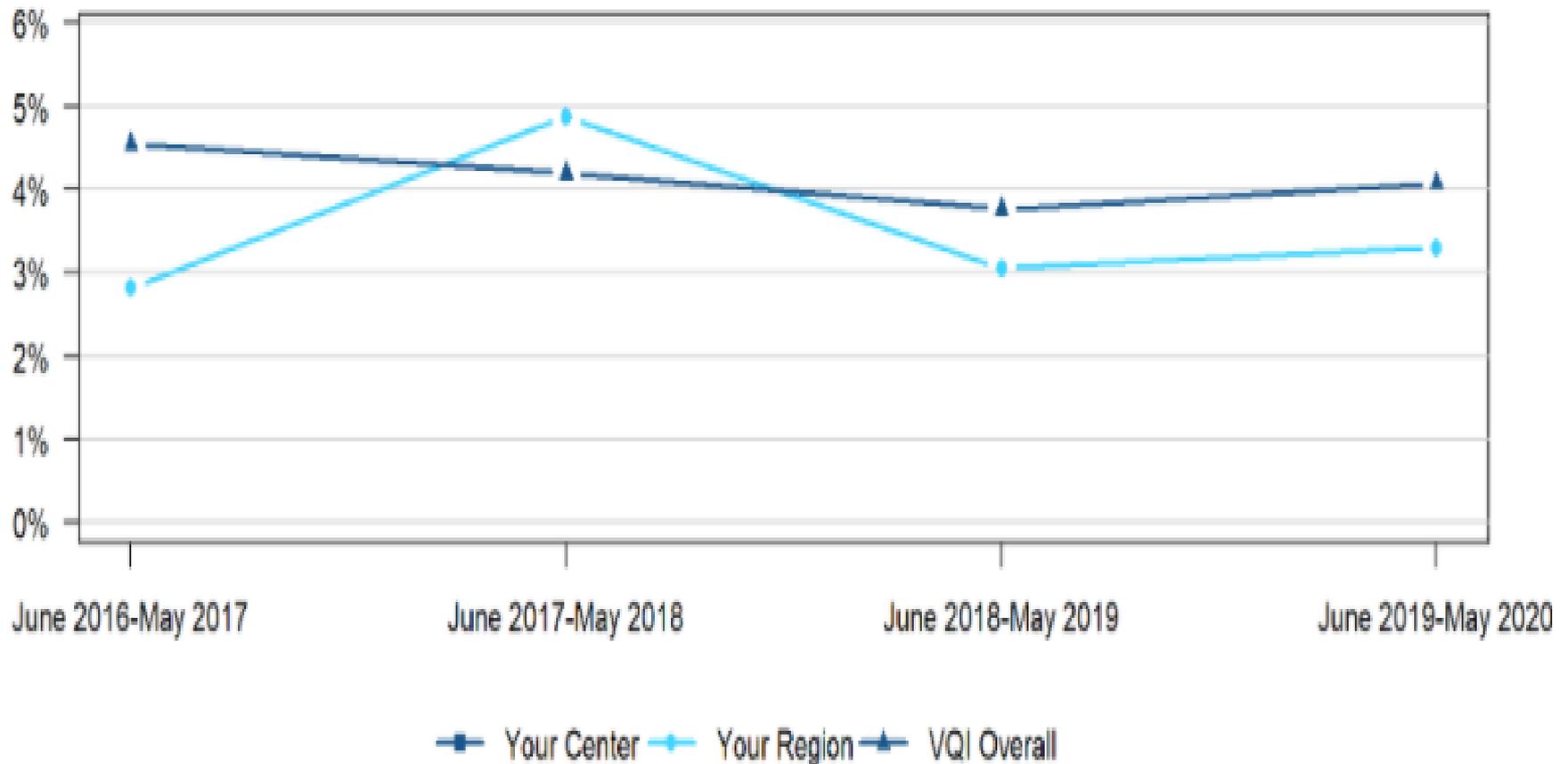
Procedures performed between June 1, 2019 and May 31, 2020

Includes Infrainguinal Bypass (INFRA) procedures only. Excludes any patient with an indication other than rest pain or tissue loss. Major complications are defined as in-hospital death, ipsilateral BK or AK amputation, or graft occlusion.

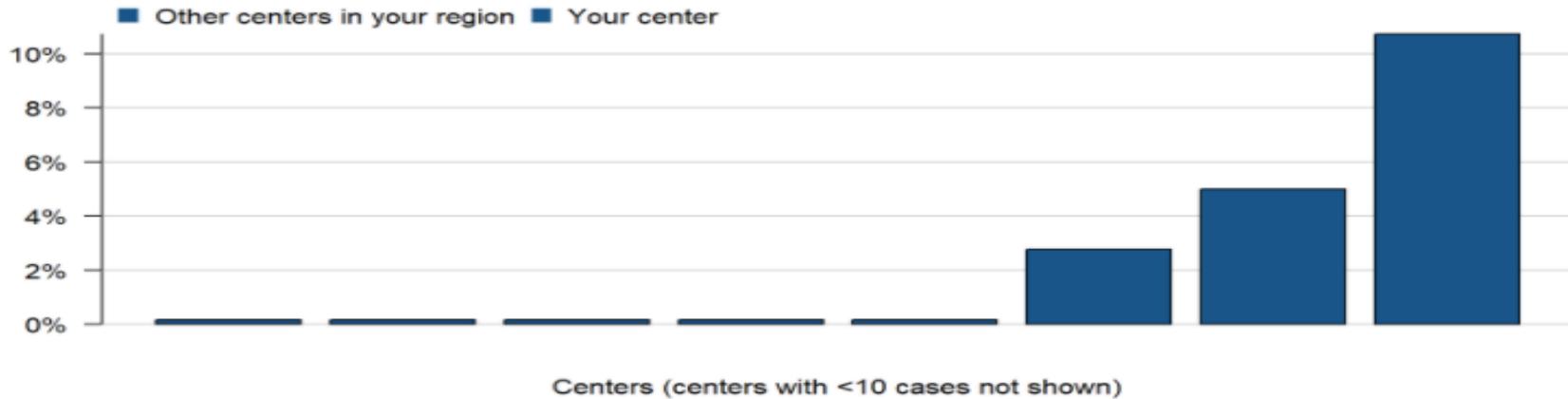
The table below gives the number of INFRA procedures meeting the inclusion criteria, and the percentage of those procedures that resulted in in-hospital death, ipsilateral BK or AK amputation, or graft occlusion.

	Your Center	Your Region	VQI Overall
Number of INFRA procedures meeting inclusion criteria		212	4119
Percentage with major complications		3.3%	4.1%

## Major Complications After INFRA by Year

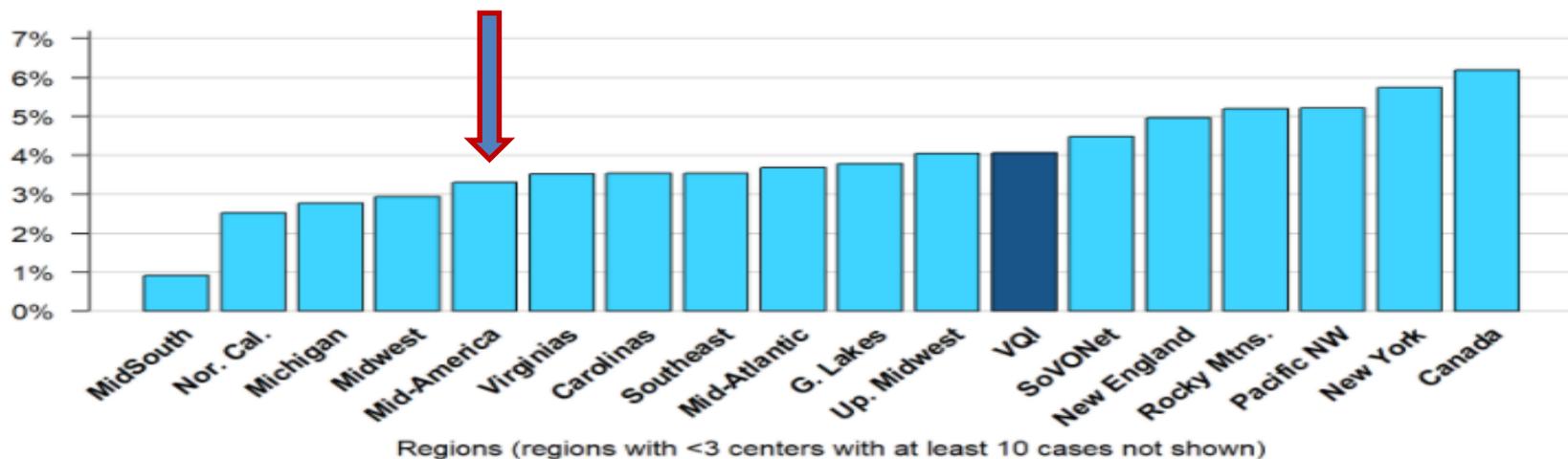


### Major Complications After INFRA in Your Region (June 2019-May 2020)



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

### Major Complications After INFRA by Region Across VQI (June 2019-May 2020)



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

# AVACCESS: Primary AVF vs. Graft

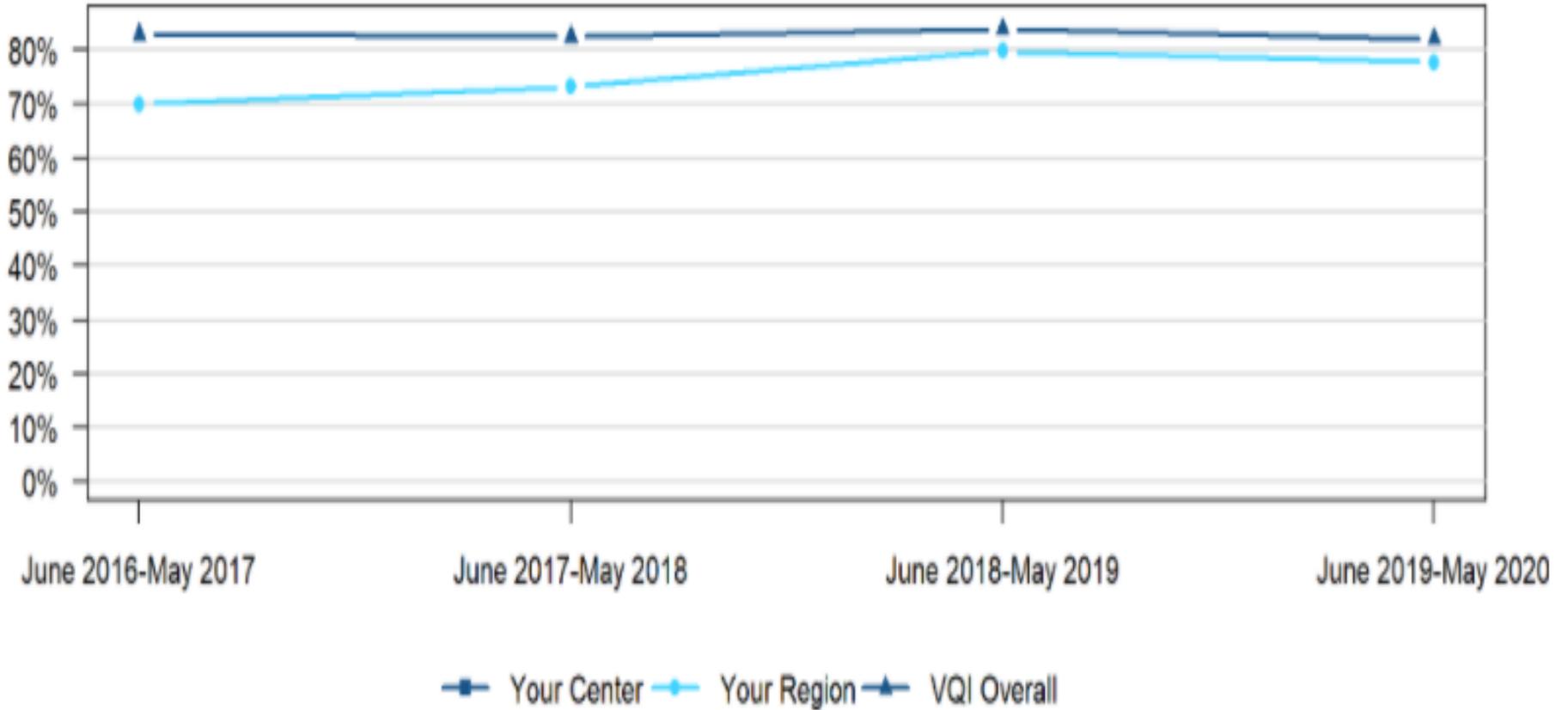
Procedures performed between June 1, 2019 and May 31, 2020

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

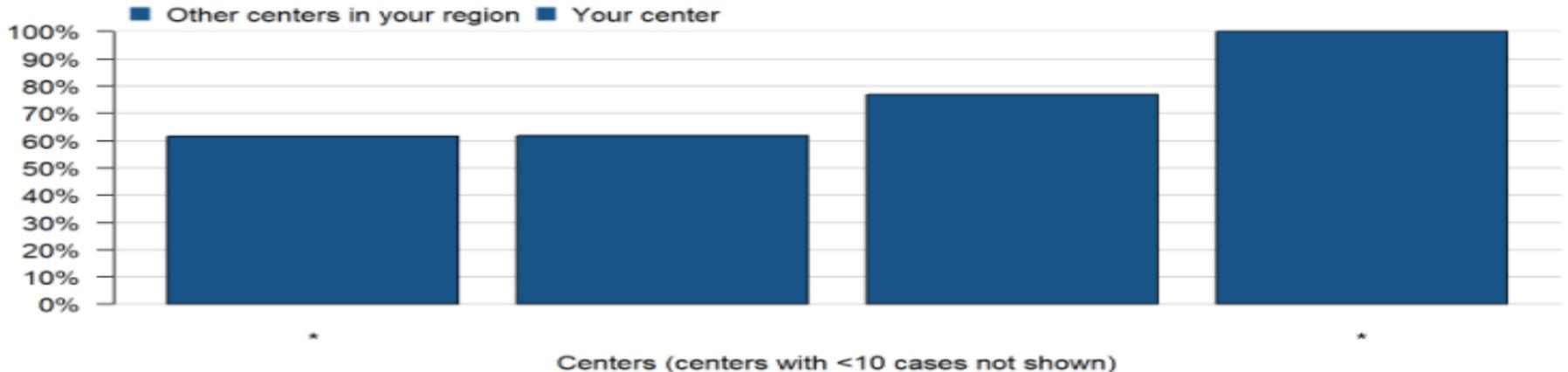
The table below gives the number of procedures meeting the inclusion criteria, and the percentage of those procedures that were primary AVF.

	Your Center	Your Region	VQI Overall
Number of AVACCESS procedures meeting inclusion criteria		139	5116
Percentage with primary AVF		77.7%	82.1%

### Primary AVF Access by Year

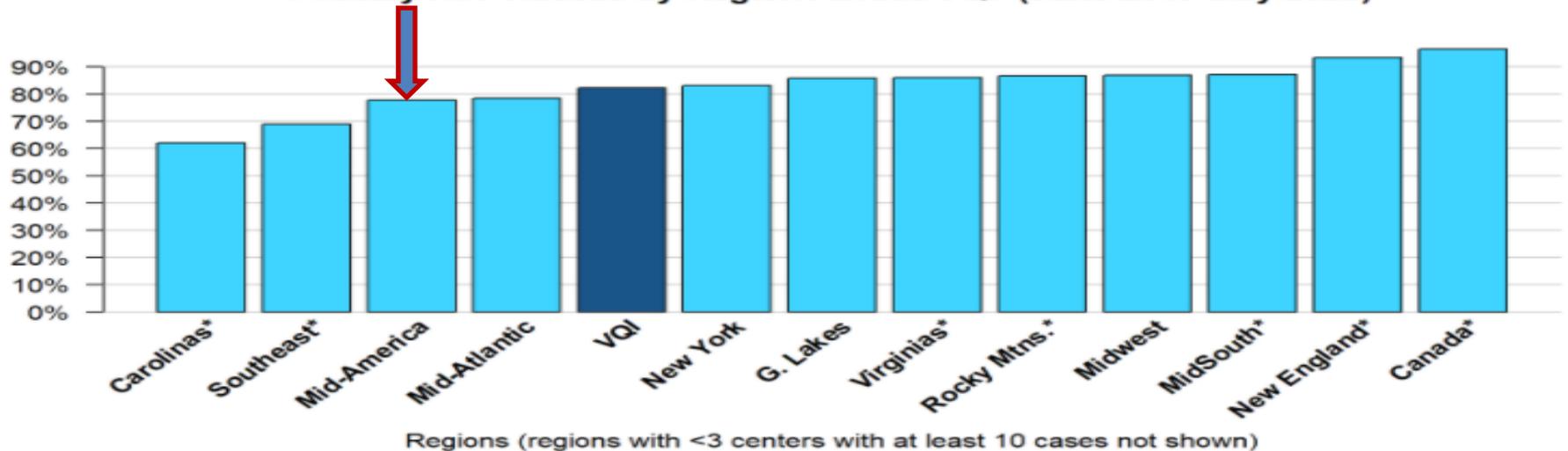


### Primary AVF Access in Your Region (June 2019-May 2020)



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

### Primary AVF Access by Region Across VQI (June 2019-May 2020)



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

# PRESENTATION

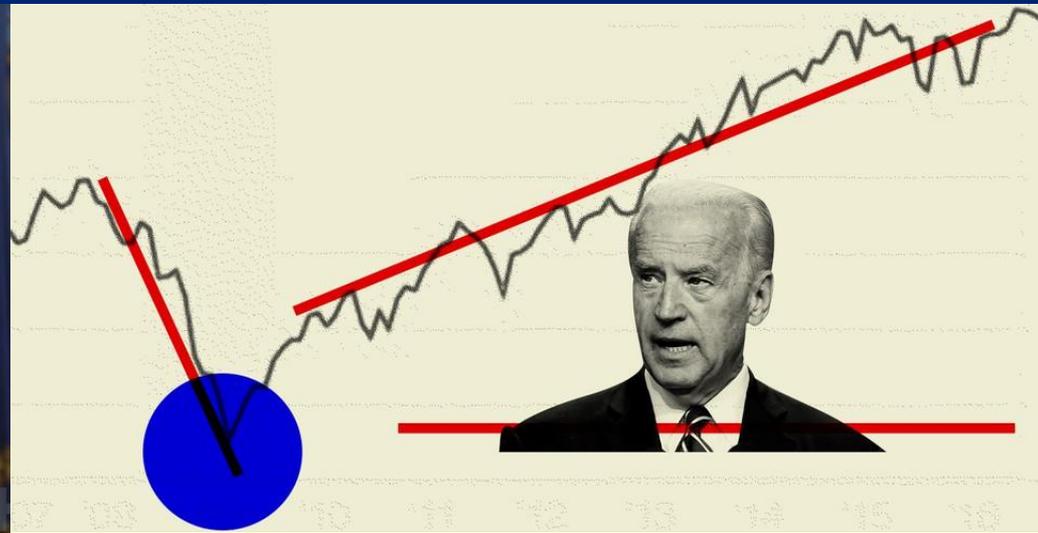
James Ebaugh, M.D.

***Interpreting statistics in the VQI literature***

# Mid-America Vascular Study Group (MAVSG)

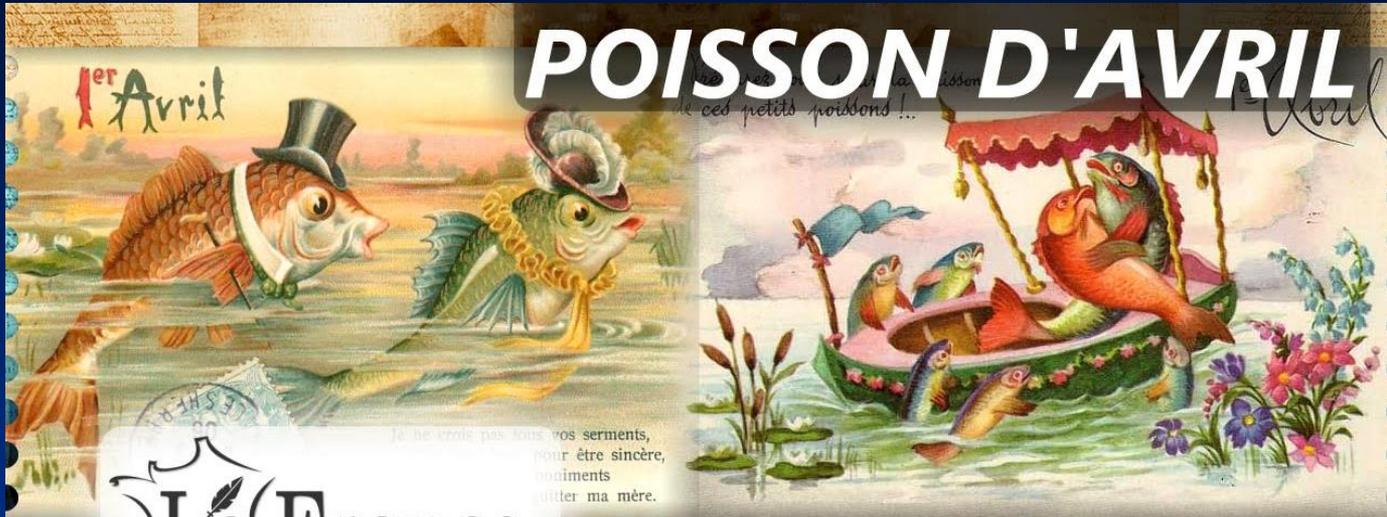
## ***Interpreting statistics in the VQI literature.***

### *Election edition*



# The Poisson distribution

## POISSON D'AVRIL



Je ne crois pas tous vos serments,  
pour être sincère,  
souvenez-vous  
d'écouter ma mère.

**La France**  
pittoresque

### À quoi le doivent les farces et plaisanteries du 1er avril ?

#### Pâtes

...nique / gésiers confits et sot-l'y-laisse  
24.00 €

...mo / queues de crevette et moules /  
et de crustacés 24.00 €

#### Poissons

Véritable haddock poché à l'anglaise / épinards frais /  
beurre blanc 27.00 €

Noix de Saint-Jacques dorées / céleri et sucrose /  
sauce au cidre 27.00 €

Filet de bar poêlé / pois chiches à la coriandre /  
jus d'une bouillabaisse 27.00 €

#### Viandes

Belle entrecôte "Argentine" / béarnaise /  
pommes frites 34.00 €

Filet de bœuf Spécial Closerie, pommes frites 48.00 €

Epaule d'agneau confite / bouillon oriental /

# *Routine Use of Ultrasound Guidance in Femoral Arterial Access for Peripheral Vascular Intervention Decreases Groin Hematoma Rates in High-Volume Surgeons*

*Elica Inagaki, Alik Farber, Jeffrey J. Siracuse, Matthew W. Mell, Denis V. Rybin, Gheorghe Doros, and Jeffrey Kalish, for the VQI, Boston and Palo Alto*

*Annals of Vascular Surgery 2018; 51: 1-7.*

## ARTICLE HIGHLIGHTS

**Type of Research:** Retrospective review of prospectively collected Vascular Quality Initiative (VQI) data

**Key Findings:** In 43,947 patients undergoing PVI via femoral access, rates of hematomas were assessed using both procedure- and interventionalist-level analyses.

UG was associated with increased risk of hematoma (odds ratio [OR] 1.29, 95% confidence interval [CI] 1.13-1.47,  $P < 0.001$ ), but this risk was isolated to patients treated by selective (OR 1.33, 95% CI 1.17-1.53,  $P < 0.001$ ) rather than routine users of UG (OR 0.85, 95% CI 0.55-1.33,  $P = 0.484$ ). In the overall interventionalist-level analysis, routine UG was not found to be protective against hematoma, however, subgroup analysis revealed that routine UG was further protective against hematoma among high-volume interventionalists (RR 0.73, 95% CI 0.54-0.97,  $P = 0.030$ ).

**Take Home Message:** UG in percutaneous femoral artery access may decrease the complication rate of groin hematoma, especially as an interventionalist's volume increases and as selective use transforms into routine adoption.

# Statistical analysis

“In the procedure-level analysis, we examined the baseline characteristics of patients with and without the complication of hematoma as well as risk factors associated with hematoma. Comparisons of patient demographics, comorbidities, and procedural variables were performed with the  $\chi^2$  test for categorical variables and the Student’s t-test for continuous variables. ... In the interventionalist-level analysis, **comparisons of hematoma rates** in routine vs. selective users of UG were performed to obtain unadjusted rate ratios (RRs). **Multivariable Poisson regression models were used to obtain adjusted RR in the overall sample and in subgroups based on interventionalist volume.**”

**Table IV.** Hematoma rates by routine vs. selective UG

Variable	RR	95% CI	P value
Routine vs. selective UG	0.97	0.85–1.11	0.677
Low-volume interventionalists	0.78	0.50–1.22	0.285
Medium-volume interventionalists	1.09	0.93–1.28	0.268
High-volume interventionalists	0.73	0.54–0.97	0.030

# Short Term and Long Term Outcomes After Endovascular or Open Repair for Ruptured Infrarenal Abdominal Aortic Aneurysms in the VQI

Mario D’Oria, Kristine T. Hanson, Marc Shermerhorn, Thomas C. Bower, Bernardo C. Mendes, Fahad Shuja, Gustavo S. Oderich, Randall R. DeMartino

*Eur J Vasc Endovasc Surg* (2020) 59, 703e716

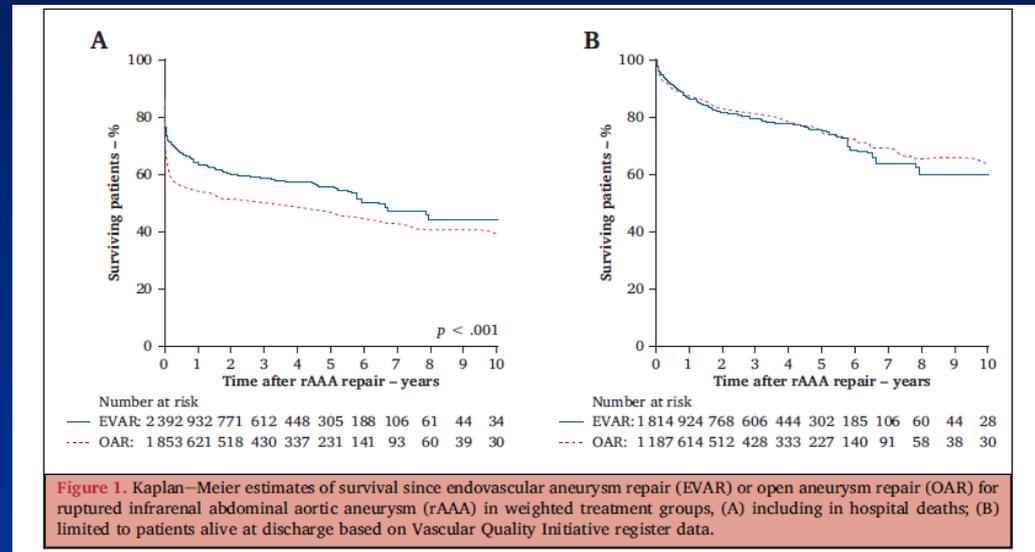
## ARTICLE HIGHLIGHTS

**Type of Research:** Retrospective review of prospectively collected VQI data.

**Methods/Results:** 4257 patients undergoing open abdominal aortic aneurysm repair or EVAR for ruptured AAA (rAAA) were analyzed. Primary outcome: death.

**Secondary outcomes:** MI, respiratory cxs, rates of blood transfusion, number of post discharge reinterventions at 1 yr.

**Take Home Message:** Unlike elective AAA repair, a convergence of survival rates between EVAR and OAR in long term follow up for patients who survived the index hospitalization was not observed, suggesting that the early significant benefits of EVAR are sustained over time and an endovascular first strategy in anatomically feasible candidates with rAAA may be associated with long term benefits.



# Statistical analysis

“Logistic regression was used for in-hospital mortality, and Cox proportional hazards for overall post-discharge mortality, along with Kaplan-Meier estimates with log rank test to assess differences. Linear regression assessed hospital and ICU LOS, Poisson regression assessed rates of re-interventions, and PRBC; logistic regression assessed MI, new onset dysrhythmia, new onset CHF, respiratory complications, and unfavourable discharge.”

**Table 3.** Univariate comparison of outcomes for endovascular aneurysm repair (EVAR;  $n = 2\,389$ ) versus open aneurysm repair ( $n = 1\,868$ ), in weighted treatment groups, of patients registered in the Vascular Quality Initiative for treatment of ruptured infrarenal abdominal aortic aneurysms

Outcomes	OR (reference: EVAR)	95% CI	<i>p</i> value
<i>Primary</i>			
In-hospital mortality	1.76	1.54–2.01	<.001
Overall post-discharge mortality, excluding in-hospital deaths – HR	1.32	1.20–1.45	<.001
Overall post-discharge mortality, limited to patients alive at discharge – HR	0.93	0.77–1.12	.44
<i>Secondary</i>			
Hospital LOS (difference in days) – IRR	3.1	SE: 0.5	<.001
ICU LOS (difference in days) – IRR	3.4	SE: 0.3	<.001
MI (troponin or clinical/ECG)	1.51	1.25–1.82	<.001
New onset dysrhythmia	1.76	1.50–2.07	<.001
New onset CHF	1.48	1.15–1.90	.002
Respiratory complications (pneumonia/re-intubation)	2.08	1.81–2.38	<.001
PRBC transfusions – IRR	1.60	1.57–1.64	<.001
Unfavourable discharge (any other than to home)	2.25	1.98–2.56	<.001
Re-interventions – IRR	2.10	1.52–2.89	<.001

# Siméon Denis Poisson (1781-1840)

---

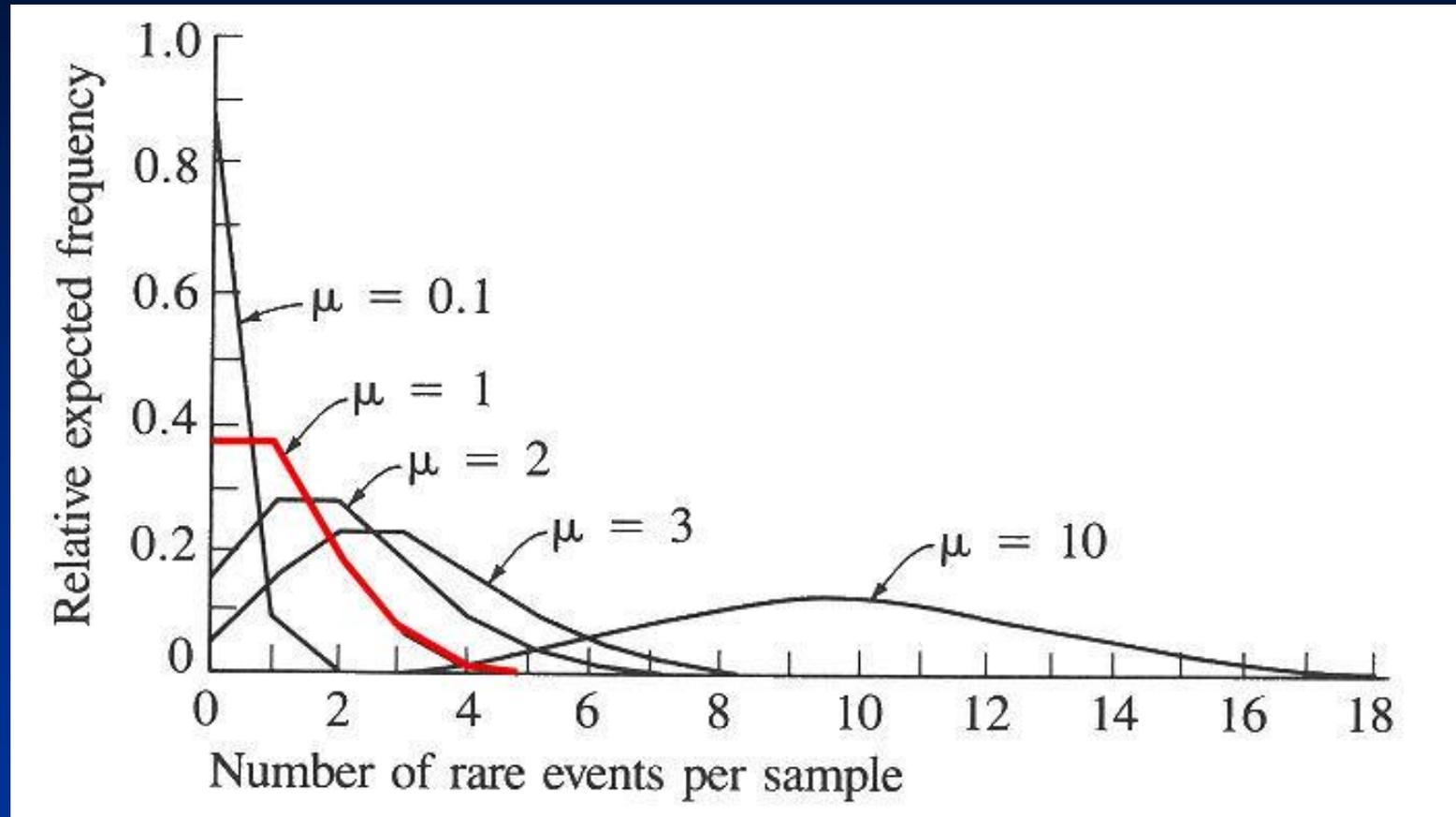
Mathematician, engineer,  
and physicist.

*“Life is good for only two  
things: doing mathematics  
and teaching it”*



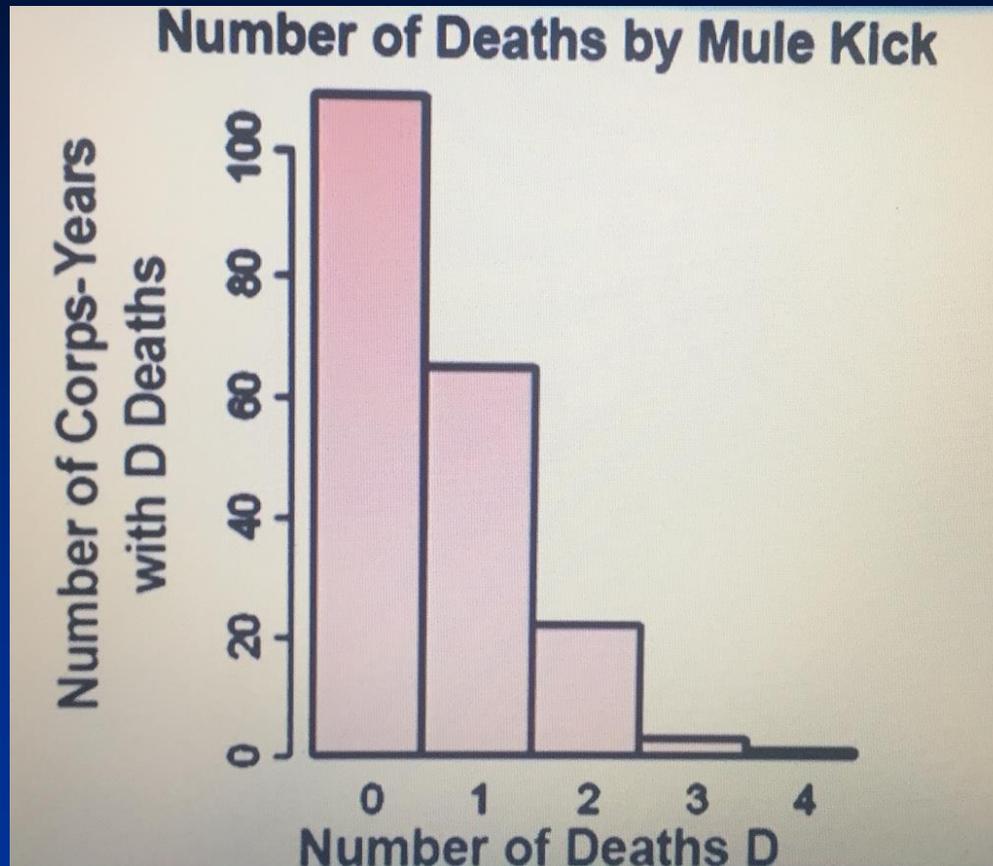
# Poisson distribution: Measures counts per unit time.

---



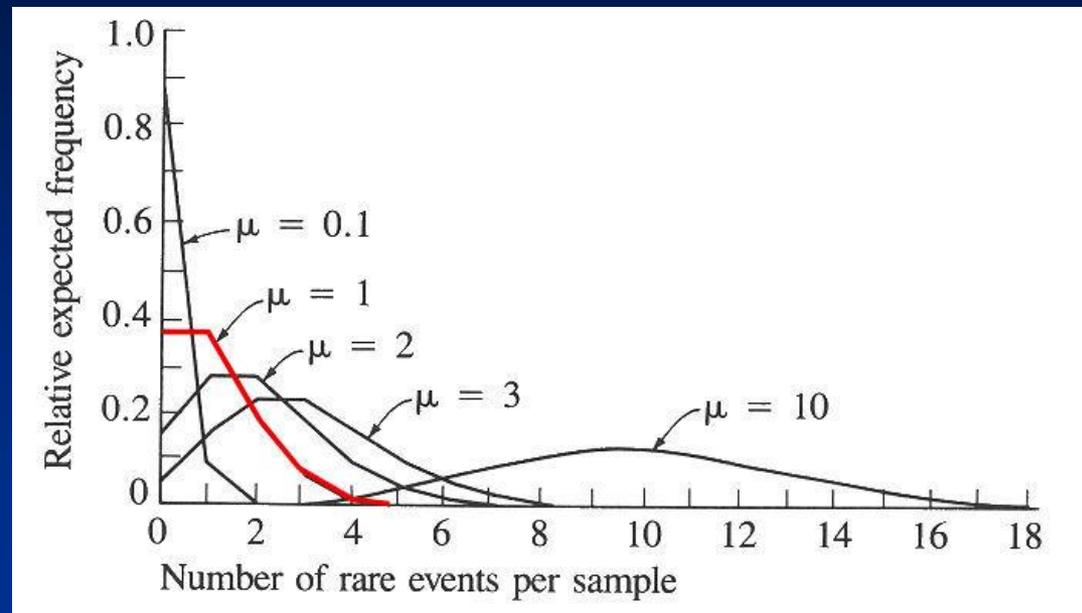
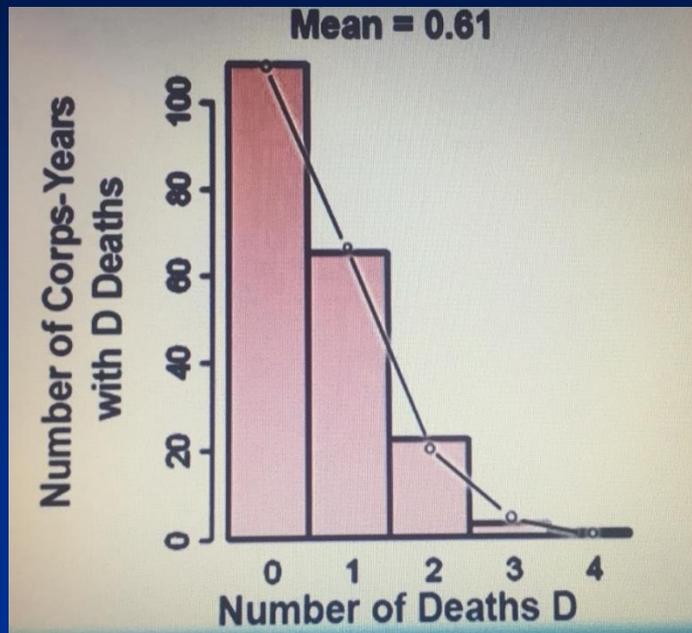
# Poisson distribution measures *random & independent* events

---

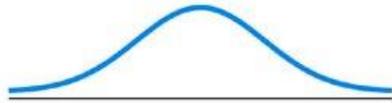


Classic early example of event conforming to Poisson distribution

# Cat be used to measure *rare* random and independent events



# Common distribution shapes



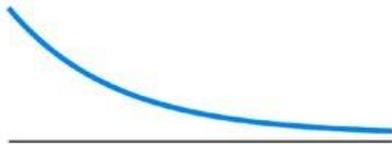
(a) Bell shaped



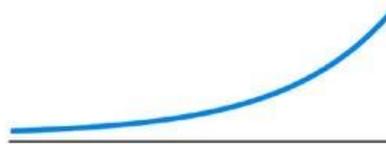
(b) Triangular



(c) Uniform (or rectangular)



(d) Reverse J shaped



(e) J shaped



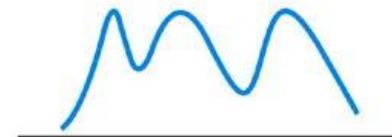
(f) Right skewed



(g) Left skewed



(h) Bimodal



(i) Multimodal

# Event rate can be easily calculated:

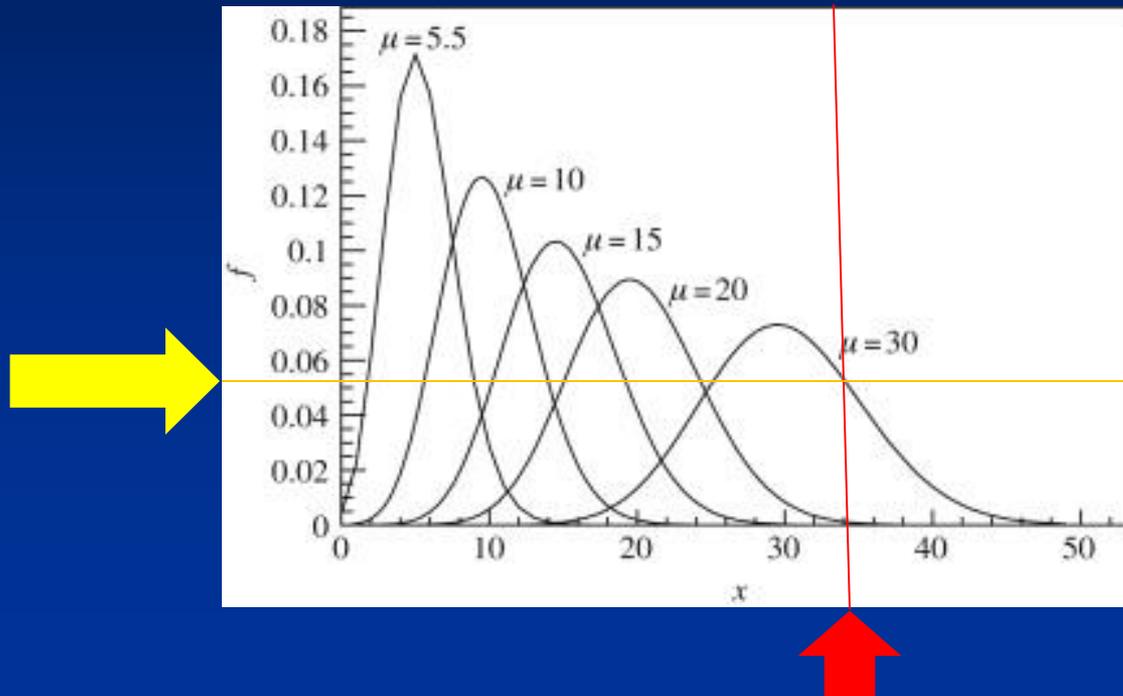
Probability (yellow line) of event rate =

$$e^{-\mu} \mu^x / x!$$

$e = 2.71$

$\mu$  = average event rate

$x$  = event rate we are interested in (red line)



# Poisson distribution used for:

---

- **Random** events
- **Independent** of each other
- Can be rare or frequent events, but in practice, usually used for rare events

Poisson  
distribution  
usually used  
for *rare*  
events

**Table II.** Hematoma rates by univariate analysis

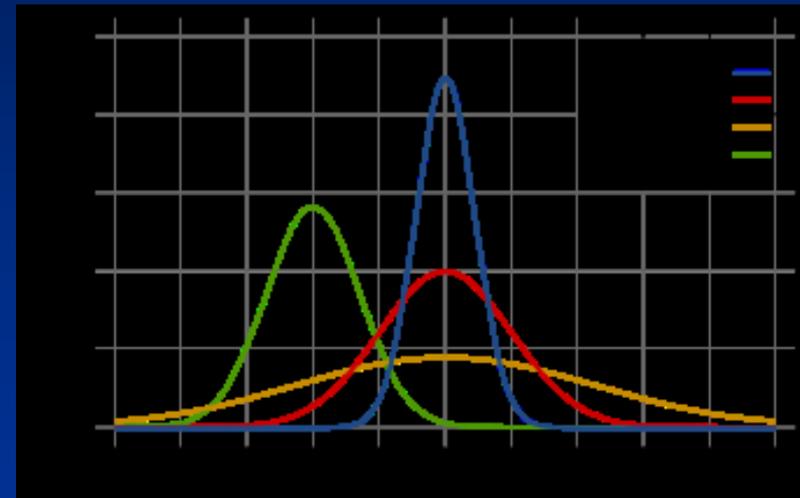
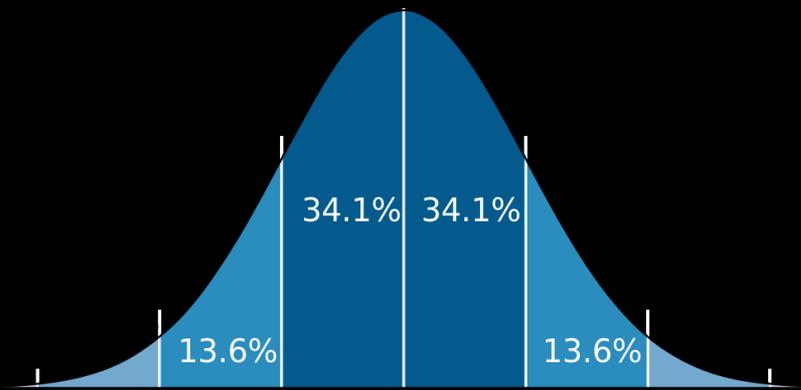
Variable	Hematoma rate, %	P value
Demographics		
Age group, years		<0.0001
18–79	2.9	
>80	4.6	
Gender		<0.001
Male	2.6	
Female	4.1	
Medical history		
HTN		0.965
Yes	3.2	
No	3.2	
CABG/PCI		0.046
Yes	3.0	
No	3.4	
COPD		0.031
Yes	3.6	
No	3.1	
Diabetes mellitus		<0.001
Yes	2.8	
No	3.7	

Thank you!

If normal NORMAL (Gaussian) DISTRIBUTION,  
parametric statistical tests can be used

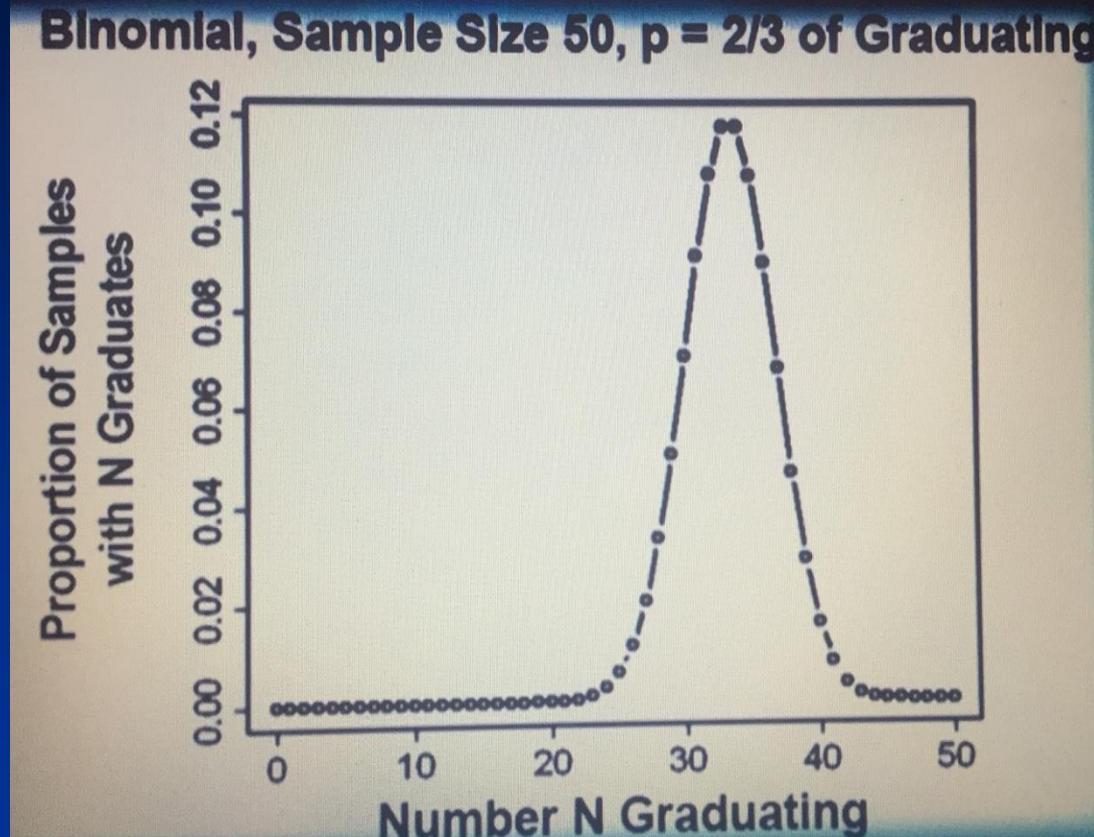
---

Mean, standard deviation



# Binomial family of distributions is also frequently used in medicine

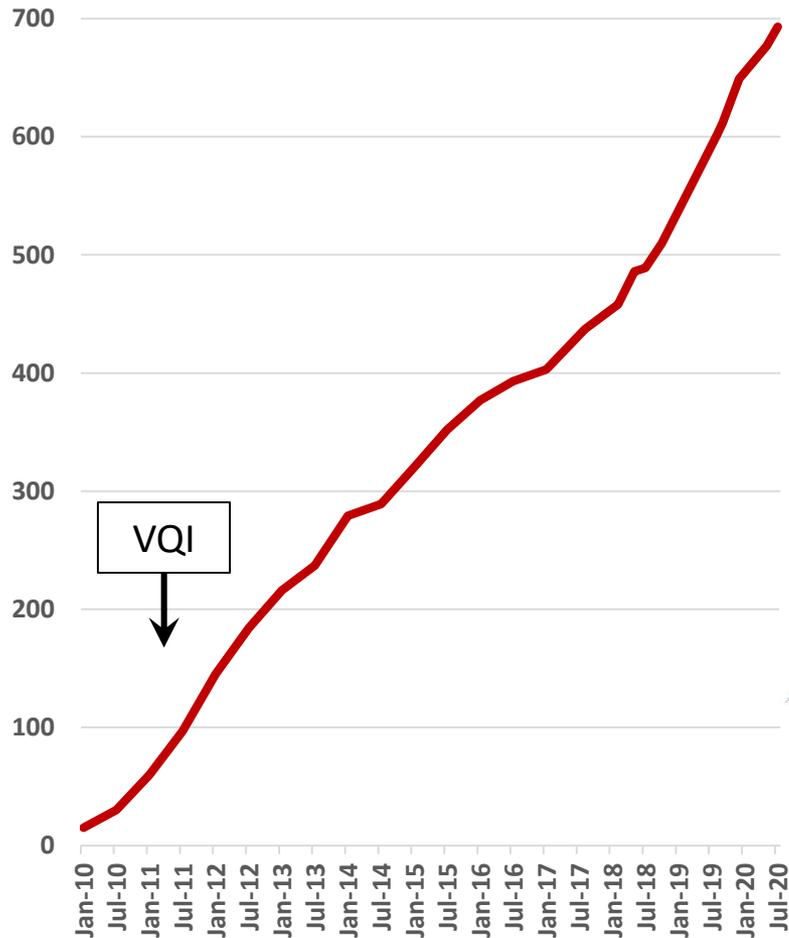
---



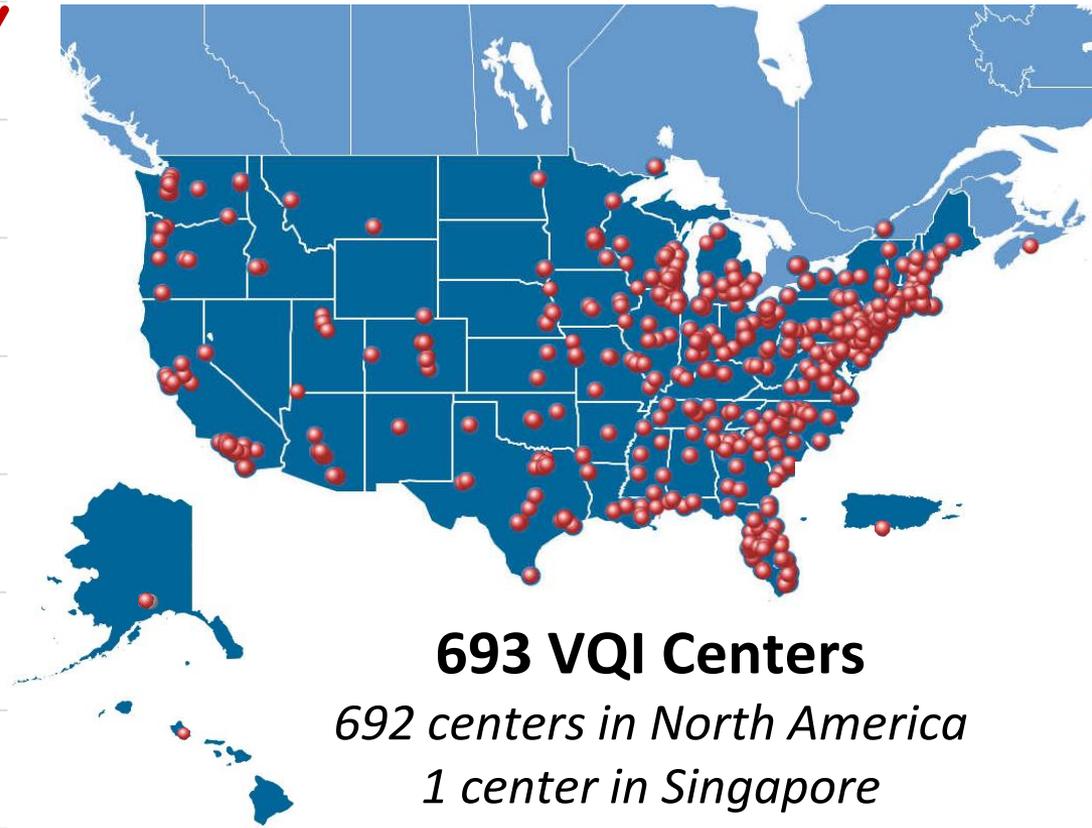
- **Cheryl Jackson, SVS PSO**

# National VQI Update: Cheryl Jackson, SVS PSO

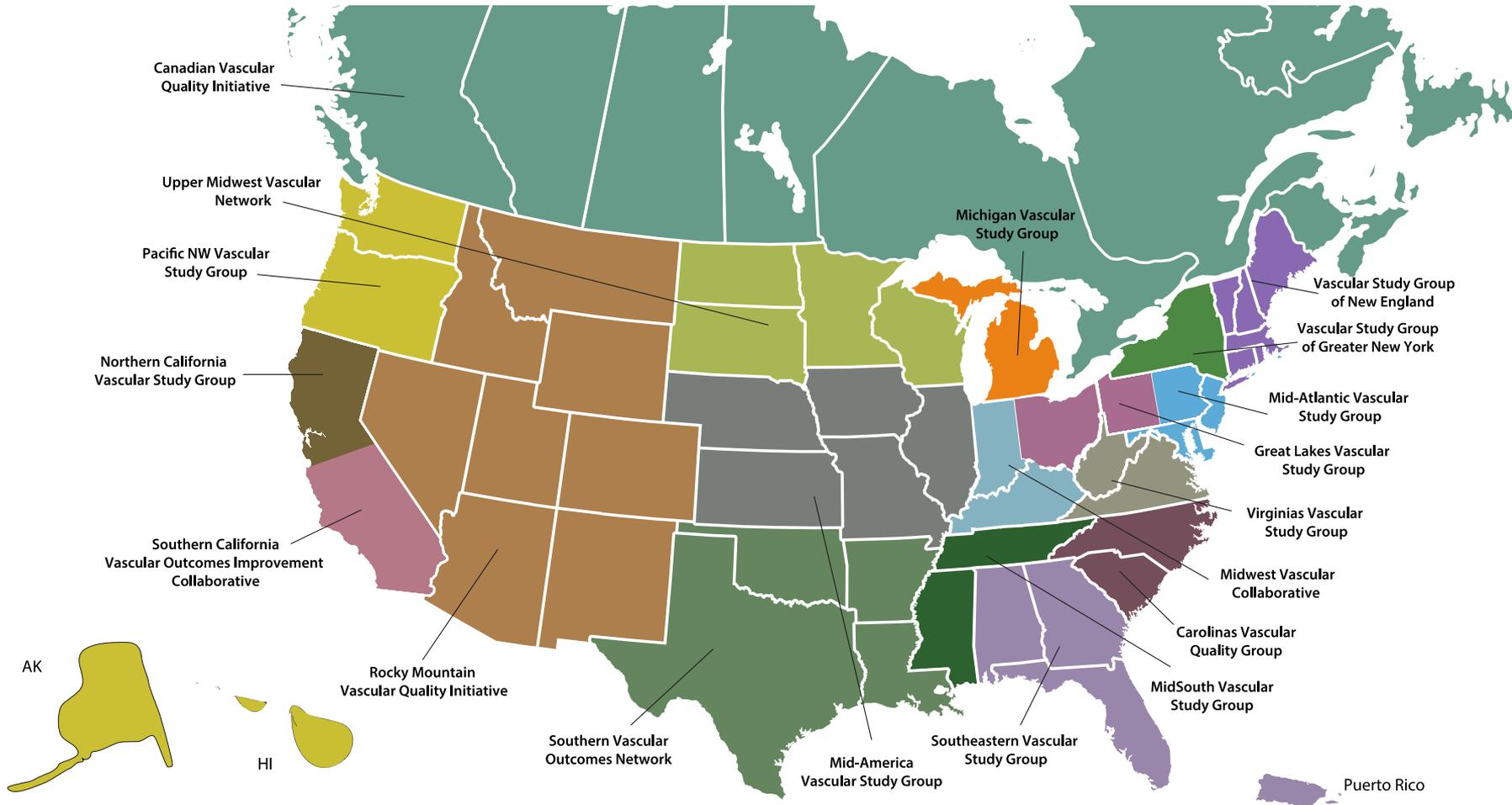
## Number of Participating Centers



## Location of VQI Participating Centers

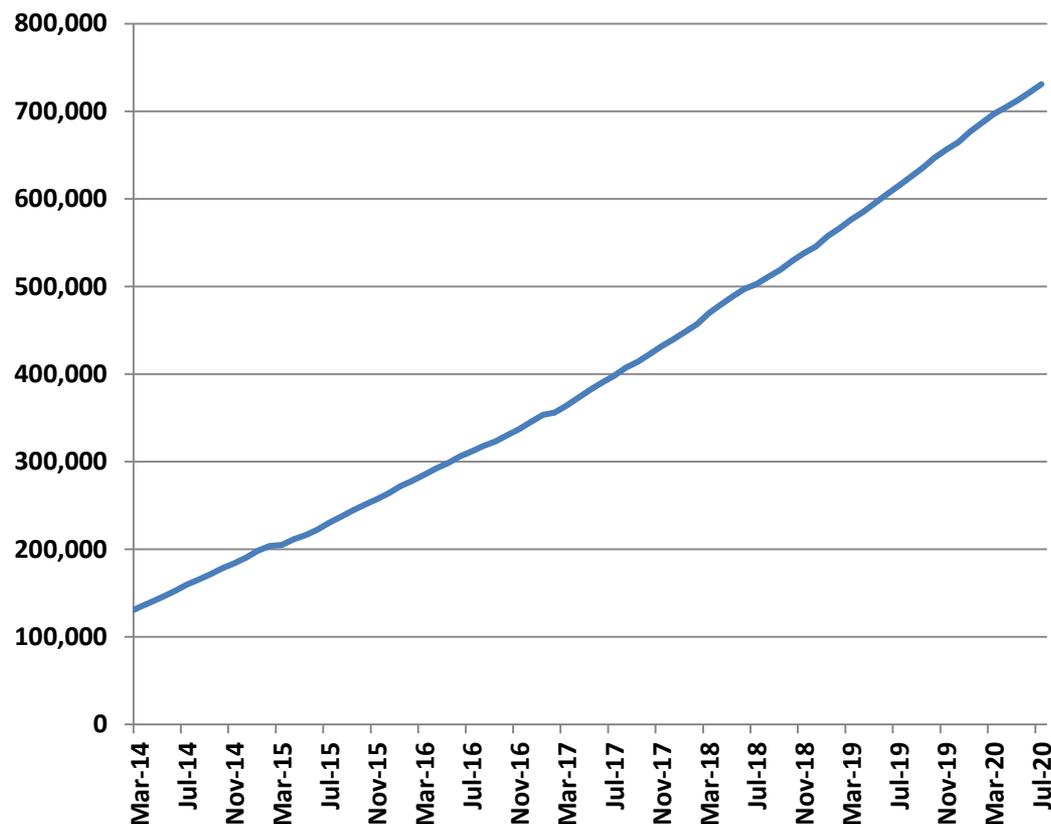


# 18 Regional Quality Groups



Total Procedures Captured (as of 8/1/2020)	<b>731,047</b>
Peripheral Vascular Intervention	238,942
Carotid Endarterectomy	143,322
Infra-Inguinal Bypass	62,429
Endovascular AAA Repair	57,846
Hemodialysis Access	57,648
Carotid Artery Stent	44,584
Varicose Vein	40,050
Supra-Inguinal Bypass	20,437
Thoracic and Complex EVAR	18,718
Lower Extremity Amputations	18,595
IVC Filter	14,549
Open AAA Repair	13,918

### VQI Total Procedure Volume



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

# Vascular Medicine Consult Registry

## Collaboration:

**Society for Vascular Surgery**  
**American Heart Association**  
**Society for Vascular Medicine**

## Inclusion Criteria:

This registry only includes New Outpatient Consults who are being treated **medically** for:

- Lower Extremity peripheral arterial disease due to atherosclerosis
- Atherosclerotic carotid artery occlusive disease
- Abdominal aortic aneurysm

## Exclusion Criteria:

- Evaluation/diagnosis of pseudo or neurogenic claudication, peripheral arterial disease due to trauma, popliteal entrapment, medial adventitious cystic disease, chronic compartment syndrome
- Carotid disease due to dissection, infection, aneurysm, tumor, isolated common carotid lesion not thought to involve the bifurcation, disease of the carotid bifurcation due solely to vasculitis, and Moyamoya disease, and fibromuscular dysplasia
- Isolated aortic dissection without aneurysm
- Thoracic, thoraco-abdominal, and mycotic aneurysms

- **Data Collection:**

- Registry to focus on **non-operative medical management** of these conditions
- Medication details and dosages, along with lifestyle modifications and counseling will be the emphasis of this registry

- **Opportunities**

- Identify patterns/variation of treatment and pre-intervention management
- Identify QI initiatives
- Opportunities in comparative effectiveness research

- First site signed and entering data! Many more in the contracting phase!
- Webpage link: <https://www.vqi.org/directory/new-vascular-medicine-consult-registry/>
- Recorded webinars: <https://www.vqi.org/vascular-medicine-consult-registry-webinar-recordings-available/>
- For more information please contact:
  - [VQI@M2S.com](mailto:VQI@M2S.com)

- VQI OnLine hosted 12 sessions over 6 weeks
- Attendance ranged from 300 – 125 live users
- PSO thanks all the Speakers and Moderators
- Feedback has largely been positive
- Need a better registration and invite process
- Wil incorporate virtual sessions even as we return to a live event
- Replays can be found on the VQI Members Only website.
- <https://www.vqi.org/wp-content/uploads/VQI-ONLINE-latest-schedule-6.9.2020.pdf>

## After the successful completion of our first VQI ONLINE event series, we have posted the video content on the Members Only area

If you wish to view any of the video sessions, please log in to the VQI Members Only area on the website. (If you do not have credentials for Members Only, please contact Nancy Heatley to set up your access. This is only available for registered VQI members.)

**VQI Members Only – <https://www.vqi.org/members-login/>**

Full recordings of each event are available at no cost to VQI members through Members Only.

Contact Nancy Heatley [Nheatley@svspso.org](mailto:Nheatley@svspso.org) if you need assistance!

## **ACC, SVS Join Forces on Single Vascular Registry**

The American College of Cardiology and Society for Vascular Surgery are collaborating on a single vascular registry to harness the strengths of both organizations in improving care and outcomes of patients with vascular disease.

<https://www.vqi.org/acc-svs-join-forces-on-single-vascular-registry/>

## Other COVID-19 Info

We are aware that COVID-19 has put a significant strain on staff and resources. The SVS PSO VQI will do our best to assure that any temporary workflow disruption will not have a negative impact on SVS VQI work or subsequent participation awards.

Procedure	COVID status at time of procedure	0=Unknown, not tested; 1=Tested negative pre-op; 2=Tested positive pre-op; 3=Tested negative pre-op but positive post-op
Procedure	COVID symptoms pre-procedure	1=Asymptomatic, 2=Symptomatic, not intubated, 3=Symptomatic, intubated
Procedure	Treatment delay by pandemic	0=None, 1= Delayed < 2 weeks, 2=Delayed 2-6 weeks, 3=Delayed > 6 weeks, 4=Uncertain
Procedure	Impact of delay in treatment	0=No, impact in tx due to delay, 1=Yes, impact of tx due to delay 2=Indeterminate
30 day and LTFU	COVID Test Status after D/C	0= Never tested, no symptoms, 1= Never tested, but had symptoms, 2= Interval test positive with no current symptoms, 3= Interval test positive with active symptoms, 4= Interval test negative with no current symptoms, 5= Interval test negative with active symptoms,

# COVID-19 Variable Roll out:

Release Date	Registry
<b>Friday, August 28, 2020</b>	Open AAA Repair
	Carotid Endarterectomy (CEA)
<b>Saturday, August 29, 2020</b>	Supra-inguinal Bypass (Supra)
	Infra-inguinal Bypass (Infra)
	Hemodialysis Access (HDA)
	Varicose Vein (VV) *COVID variables only
	Venous Stent (VSR)
	Peripheral Vascular Intervention (PVI)
	Carotid Artery Stent (CAS)
<b>Late September 2020 - to be announced</b>	IVC Filter (IVC)
	Lower Extremity Amputation (LEA)
	Endo AAA Repair (EVAR)
	Thoracic and Complex EVAR (TEVAR)

## My Peripheral Arterial Disease: a VQI Pilot of Patient Reported Outcomes for PAD

- The Society for Vascular Surgery Vascular Quality Initiative is seeking practices to participate in My PAD, a pilot program for the collection of patient reported outcomes (PRO) on patients undergoing endovascular treatment for peripheral arterial disease (PAD).
- The VQI recognizes that traditional outcomes such as patency and reintervention may not fully capture the quality of care or the experience of PAD patients. There is a long overdue need to learn and measure the patient's perspective.
- **Must be in the PVI registry and have greater than 80% follow up!**

## Highlights

- Outpatient peripheral vascular interventions (PVI) for claudication or chronic limb threatening ischemia
- Collect VascuQoL-6 and EuroQoL 5D-5L (estimated completion time 10-15 minutes)
- Collection at three time points: pre-procedure, one month and one year postoperatively
- PRO data entry options include paper forms, computer, tablet and smart phone
- Educational materials for direct from patient data entry
- PRO feedback to participating physicians

- Changes to Perioperative Dashboards
- New On-line LTFU reports
- Suggestions for “other reports”?

# Perioperative Dashboard Remodel

## Overall Modifications

### Change explanation language- confusing

- *Note also that percentages are computed only among cases with non-missing data for each outcome, so it is possible to have rates for some outcomes but “No cases” for others.*
- *Better to say??: Only cases with complete data have been analyzed.*

### Reorder sequence

- Combine CAS and CEA under “All carotid interventions” - give % of type
- All Carotid; then all Aortic (TEVAR/EVAR/OAAA/Supra); then all LE (PVI/LEB/Amp); then all Vein (VV/IVC/AVF); then Medical

### Eliminate null entry of registry data

- Inefficient and visual fatigue- leave blank and provide no entry; should not require major reprogramming

### Develop common metric for complications

- Return to OR (RTOR) should be common to all with ‘BTR’: bleeding/thrombosis/revision and then use registry specific complications in separate row or with BTR

### Provide One year and 3 year comparators

- Since Dashboard is quarterly, a rapid look at 1Y and 3Y trend data will be very useful and can be provided via linkage

### Include Category under each registry of excluded ‘N’s

## Items to consider changing on current dashboards

- Reorganize sequence: Carotid → Aortic → LE → Vein → Medical
- Rolling quarter concept to allow for statistical merit on low volume procedures such as OAAA, etc. to achieve  $N > \sim 15$ . This would also be carried over to LTFU regional reports comparison
- Add LTFU metric to category dashboard → Hyperlink option
- Replace 25<sup>th</sup> / 50<sup>th</sup> / 75<sup>th</sup> percentile with whiskerplot: 90-10%tile which shows median of VQI and arrow locating center level %tile

- Combine into all carotid interventions for total of procedures in center
- Asymptomatic definition changed to 180 days
- Breakout into % CAS vs CEA as well as %TCAR vs TFCAS
- Under each category above: % Age  $\geq$  80 and % CMS High Risk Criteria
- MACE reported separated for Total CAS (TCAR + TFCAS) and CEA
- Contralat/Ipsi CVA reported for each procedure type
- List BTR separately from Cranial Nerve Injury
- % Protamine reversal included in CEA report
- Continue with 'Case data'; 'DC meds'; 'Discharge'; 'IV meds for BP' and Dysrhythmia treatment
- **Combined totals** used when statistics do not support separating outcomes and in 'Home' disposition
- Homeless and other hospital eliminated from Disposition

# Carotid Stenting and Endarterectomy

Interventions include all carotid procedures meeting entry criteria for CAS and CEA registries with separation of Asymptomatic and Symptomatic presentation

Asymptomatic patients are those who had no ipsilateral or contralateral TIA or stroke within **180** days prior to surgery

Total Carotid Interventions N = 130 CAS 68 (52%) with **TCAR** 64 (49%)/ CEA 62(48%)

Category	Outcome/Complication N =130	Asymptomatic N =100 %CAS/CEA	Symptomatic N =30 %CAS/CEA		Region N % CAS/CEA	National N % CAS/CEA
DC Meds	Antiplatelet + Statin	/	/		/	/
MACE	%Mortality	/	/		/	/
	%CVA	/	/		/	/
	%MI	/	/		/	/
	% CHF	/	/		/	/
Disposition Total Carotids	Home	Combined total	Combined total		Combined total	Combined total
	Rehab Unit/Nursing Home	/	/		/	/

# Carotid Stent: TCAR and TFEM

Interventions include all carotid procedures meeting entry criteria for CAS and CEA registries with separation of Asymptomatic and Symptomatic presentation. Asymptomatic patients are those who had no ipsilateral or contralateral TIA or stroke within **180** days prior to surgery.

Category	Outcome/Complication	Asymptomatic N = 45	Symptomatic N = 19		Region N	National N
CAS N = 68	TCAR N= 64 TFCAS N = 4	Combined total	Combined total			
	Median PLOS	Combined total	Combined total			
RTOR	(Bleeding/ Thrombosis/Revision)	Combined total	Combined total			
CVA %TFCAS	% Contralateral/Ipsilateral	/	/		/	/
CVA % TCAR	% Contralateral/Ipsilateral	/	/		/	/
Age	Number patients >= 80	Combined total	Combined total			
Med use	(IV meds for DysR → Rx or Hyper/Hypotension)	Combined total	Combined total			
High Risk	(% meeting CMS criteria)	Combined total	Combined total			
CN Injury	(% X/XII injury at discharge)	Combined total	Combined total			

# Carotid Endarterectomy

Asymptomatic patients are those who had no ipsilateral or contralateral TIA or stroke within **180** days prior to surgery.

Interventions include all carotid procedures meeting entry criteria for CAS and CEA registries with separation of Asymptomatic and Symptomatic presentation

Category	Outcome/Complication	Asymptomatic N = 50	Symptomatic N = 12		Region N	National N
CEA N=62	Numbers of cases reviewed					
	Median PLOS					
RTOR	(Bleeding/ Thrombosis/Revision)					
CVA	% Contralateral/Ipsilateral	/	/		/	/
Age	Number patients >= 80					
Med use	(IV meds for DysR→Rx or Hyper/Hypotension)					
Protamine	% with reversal of anticoag					
High Risk	(% meeting CMS criteria)					
CN Injury	(% X/XII injury at discharge)					

# New On-Line LTFU Reports

- Select sites scheduled to test Mid October 2020
- To be rolled out to all sites soon
- Over time LTFU reports to be created for all registries (CEA/CAS next)
- \*A toggle will be provided at the top of the report to show or hide the (n/m) values
- Ability to drill down to the patient PRIMPROCID
- Ability to filter on Elective, Ruptured, Symptomatic

My Center (Patients = xx) (Cases = xx)	My Region (Patients = xx) (Cases = xx)	Percentile	All VQI (Patients = xx) (Cases = xx)	Percentile
--	--	------------	--	------------

# InSights EVAR LTFU Report

	My Center (Patients = xx) (Cases = xx)	My Region (Patients = xx) (Cases = xx)	Percentile	All VQI (Patients = xx) (Cases = xx)	Percentile
<b>Follow-up</b>					
Cases with any follow-up	XX.x%	XX.x%	XX	XX.x%	XX
Cases with LTFU >= 9 months	XX.x%	XX.x%	XX	XX.x%	XX
Cases with LTFU >= 9 months and imaging	XX.x%	XX.x%	XX	XX.x%	XX
<b>Survival</b>					
Freedom from Death (1yr K/M)	XX.x% ± X.x%	XX.x% ± X.x%	XX	XX.x% ± X.x%	XX
<b>Status at most recent follow-up</b>					
<b>Living Status</b>					
Home	XX.x%	XX.x%	XX	XX.x%	XX
Homeless	XX.x%	XX.x%	XX	XX.x%	XX
Nursing Home	XX.x%	XX.x%	XX	XX.x%	XX
New nursing home	XX.x%	XX.x%	XX	XX.x%	XX
<b>Functional Status</b>					
Full	XX.x%	XX.x%	XX	XX.x%	XX
Light Work	XX.x%	XX.x%	XX	XX.x%	XX
Self-care	XX.x%	XX.x%	XX	XX.x%	XX
Assisted Care	XX.x%	XX.x%	XX	XX.x%	XX
Bed Bound	XX.x%	XX.x%	XX	XX.x%	XX
Worse Function	XX.x%	XX.x%	XX	XX.x%	XX
<b>Smoking</b>					
Prior	XX.x%	XX.x%	XX	XX.x%	XX
Current	XX.x%	XX.x%	XX	XX.x%	XX
Never	XX.x%	XX.x%	XX	XX.x%	XX
Quit since procedure	XX.x%	XX.x%	XX	XX.x%	XX
Started since procedure	XX.x%	XX.x%	XX	XX.x%	XX
<b>Renal Function</b>					
New onset dialysis	XX.x%	XX.x%	XX	XX.x%	XX
Creatinine increase > 0.5 mg/dl	XX.x%	XX.x%	XX	XX.x%	XX
<b>Medication</b>					
Antiplatelet	XX.x%	XX.x%	XX	XX.x%	XX
Statin	XX.x%	XX.x%	XX	XX.x%	XX
Anticoagulant	XX.x%	XX.x%	XX	XX.x%	XX

# InSights EVAR LTFU Report

Imaging at most recent follow-up					
Patients having no f/u	XX.x%	XX.x%	XX	XX.x%	XX
Among Patients having f/u					
None	XX.x%	XX.x%	XX	XX.x%	XX
CT/CTA	XX.x%	XX.x%	XX	XX.x%	XX
Duplex	XX.x%	XX.x%	XX	XX.x%	XX
MR/MRA	XX.x%	XX.x%	XX	XX.x%	XX
Angio	XX.x%	XX.x%	XX	XX.x%	XX
Plain Film	XX.x%	XX.x%	XX	XX.x%	XX
Max AAA Diameter					
Shrinkage >= 5 mm	XX.x%	XX.x%	XX	XX.x%	XX
No change >= 5 mm	XX.x%	XX.x%	XX	XX.x%	XX
Expansion >= 5 mm	XX.x%	XX.x%	XX	XX.x%	XX
Complications					
Access Site					
None	XX.x%	XX.x%	XX	XX.x%	XX
Infection	XX.x%	XX.x%	XX	XX.x%	XX
Pseudoaneurysm	XX.x%	XX.x%	XX	XX.x%	XX
Stenosis	XX.x%	XX.x%	XX	XX.x%	XX
Occlusion	XX.x%	XX.x%	XX	XX.x%	XX
Access Complication Treatment Required					
None	XX.x%	XX.x%	XX	XX.x%	XX
Medical	XX.x%	XX.x%	XX	XX.x%	XX
Interventional	XX.x%	XX.x%	XX	XX.x%	XX
Surgical	XX.x%	XX.x%	XX	XX.x%	XX
Graft Limb Occlusions					
None	XX.x%	XX.x%	XX	XX.x%	XX
Unilateral	XX.x%	XX.x%	XX	XX.x%	XX
Bilateral	XX.x%	XX.x%	XX	XX.x%	XX
Renal Artery Encroachment					
None	XX.x%	XX.x%	XX	XX.x%	XX
Stenosis	XX.x%	XX.x%	XX	XX.x%	XX
Occlusion	XX.x%	XX.x%	XX	XX.x%	XX
Endoleak, current					
None	XX.x%	XX.x%	XX	XX.x%	XX
Type Ia	XX.x%	XX.x%	XX	XX.x%	XX
Type Ib	XX.x%	XX.x%	XX	XX.x%	XX
Type II	XX.x%	XX.x%	XX	XX.x%	XX
Type IIIa	XX.x%	XX.x%	XX	XX.x%	XX
Type IIIb	XX.x%	XX.x%	XX	XX.x%	XX
Indeterminate	XX.x%	XX.x%	XX	XX.x%	XX
Endoleak, any time since treatment					
None	XX.x%	XX.x%	XX	XX.x%	XX
Type Ia	XX.x%	XX.x%	XX	XX.x%	XX
Type Ib	XX.x%	XX.x%	XX	XX.x%	XX
Type II	XX.x%	XX.x%	XX	XX.x%	XX
Type IIIa	XX.x%	XX.x%	XX	XX.x%	XX
Type IIIb	XX.x%	XX.x%	XX	XX.x%	XX
Indeterminate	XX.x%	XX.x%	XX	XX.x%	XX

# Report Suggestions/Ideas?

## Quorum:

- All voting for nominations and election of officers will be conducted electronically, even during in-person regional meetings. In order to conduct business, a quorum of the regional Executive Committee (EC) is considered a majority vote of all regional members of the EC that participate in the voting process. Centers are eligible to vote as of the date of the signed contract. No waiting period is required. The regional EC is entitled to one vote per center.
- An email notification to the region will be forwarded one week prior to the opening of officer nominations. A region will be permitted a collection period of one week to nominate individuals for the respective office and subsequently the regional EC will be given three weeks to vote for their member of choice.
- A regional EC member may designate a proxy for the purposes of voting provided that the VQI is notified in writing, by replying to the voting communication, prior to the end of the voting period. For voting that takes place without SVS PSO involvement, the Regional Medical Director will manage and conduct the voting process in accordance with the regional Bylaws' rules of voting, meeting a quorum. The Regional Medical Director will give prior notification to the regional EC, by means of an agenda, if a vote will be conducted during an upcoming EC meeting or regional meeting.

## Associate Medical Director:

- The Regional Associate Medical Director (AMD) is a VQI participating physician that will be nominated by the regional Executive Committee (EC) with a final vote based on the regional bylaw policies. This position will report directly to the Regional Medical Director. The Regional AMD will support the Regional Medical Director in managing the region with the application of regional guidelines. Tasks include, but are not limited to, assisting with agenda preparation, budgeting, regional meeting planning and the overall operations of the region. This role is a three-year renewable term, with an automatic succession into the Regional Medical Director's role unless the SVS PSO receives written objection(s) from member(s) of the regional EC. A final vote of the regional EC is required to sanction the transition from Regional AMD to Regional Medical Director.

## Medical Director Qualifications:

- The Medical Director is a VQI participating physician selected for a three-year renewable term by a majority vote, as defined in the regional Bylaws, of the Executive Committee (EC). The Regional Medical Director chairs the EC, prepares the agenda for meetings, prepares an annual budget and is responsible for the overall operations of the region between meetings of the EC. The Regional Medical Director will represent the region on the SVS PSO National Governing Council, unless the EC decides to elect someone else in the region.

- **Associate Medical Director**
- **Research Advisory Council (RAC)**
- **Lead Data Manager**

# CME/CE CREDIT FOR REGIONAL MEETINGS

## FALL 2020

# Regional Meeting CME/CE Credit

Des Moines University is the continuing education provider for this activity. This meeting will be awarded 2.0 *AMA PRA Category 1 Credit™*, AOA credit, and nursing contact hours.

Attendance has to be meticulously kept with professional role. The attendance roster will be cross-referenced with those applying for CME/CE.

Each participant **MUST COMPLETE BOTH** the attendance attestation and the meeting evaluation 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.

Continuing education credit is provided to you at no charge. Funding for this has been provided by the SVS PSO for the Fall 2020 meeting.

**One final note of caution:** if you do not complete the online forms and submit within 7 days, continuing education credit cannot be awarded.

# So Again.....You have 7 days!!!

A message (see below) will be placed on the regional web page immediately following the regional meeting with a link to the application for credit:

**For CME/CE credit, please click this link:**

[https://dmu.co1.qualtrics.com/jfe/form/SV\\_dj3nVgjPUKzVORL](https://dmu.co1.qualtrics.com/jfe/form/SV_dj3nVgjPUKzVORL)

Complete both parts of the form and  
**Don't Forget to hit SUBMIT** for credit!

## **We are aware that COVID-19 placed a significant strain on staff and resources**

- Formal announcement sent out April 9, 2020
- Personnel may have been reassigned making the performance of usual operations difficult if not impossible
- Many patients have had their follow-up office visits delayed. This may result in patients being seen outside of the prescribed time period (9-21 months) which is beyond anyone's control.
- Workflow disruptions may have caused delays in data entry and follow-up

**The Participation Committee will assess the 2020 Participation Award criteria to assure that temporary workflow disruptions will not have a negative impact on participation awards.**

**Updates will be provided via December QI webinar, newsletter, and email blast.**

# Quality Improvement Update

**Fall 2020**

- ▶ 2020 Quarterly Webinars
  - ▶ March 2020
    - ▶ “Starting a QI project”
  - ▶ June 2020
    - ▶ Deferred for Online VQI
  - ▶ September 2020
    - ▶ Featuring Northern California Vascular Study Group and their processes for two regional projects
  - ▶ November/December 2020
    - ▶ 2020 Participation Award Information, 2021 Changes and Wrapping up a QI Project

- Fourteen charters submitted
  - \*LTFU – 5
  - D/C Medications – 4
  - Clinical – 2 (LOS – EVAR, LE)
  - \*\*Documentation – 1 (AAA size compliance)
- \*2 regions finalizing details for LTFU QI project
- \*\* Multi-regional project - finalizing details for AAA size compliance QI project
- Focused phone calls are well attended

## Putting VQI Data into Action

### See what your colleagues are doing with QI

- Twenty-eight poster abstracts were submitted and accepted for presentation at the 2020 VQI Annual meeting that was scheduled for Toronto
- Five abstracts were featured in the Online QI session
- Seven abstracts were featured in the Online RAC session

Great feedback received for all presentations!

**Thanks to all who presented and attended the Online VQI sessions!**

# Quality Improvement Details: Charter Information

1. Activity	Documentation	Score
1. QI Project Initiation	<p>Attestation to include:</p> <ul style="list-style-type: none"> <li>• QI Project Title</li> <li>• Problem Statement</li> <li>• Goal</li> <li>• Scope</li> <li>• Deliverables</li> <li>• Resources needed</li> <li>• Project Leader</li> <li>• Clinical Sponsor</li> <li>• Expected start/finish date</li> </ul> <p>Form can be accessed at <a href="https://www.vqi.org/vqi-resource-library/quality-improvement/">https://www.vqi.org/vqi-resource-library/quality-improvement/</a></p> <ul style="list-style-type: none"> <li>• Project charters should be emailed to <a href="mailto:QI@SVSPSO.ORG">QI@SVSPSO.ORG</a> or <a href="mailto:cjackson@svspsso.org">cjackson@svspsso.org</a></li> </ul>	<p>2 points</p> <p><b>Can be submitted at anytime</b></p>

- ▶ Charter participants become part of focused group calls
  - ▶ Interactive discussion sharing barriers and successes
  - ▶ Sharing of charters
  - ▶ Networking
  - ▶ Checking in – where are you in the process
  - ▶ Celebrating success

**One on one calls, if requested**

- ▶ **The VQI News**
  - ▶ Distributed every other month
  - ▶ Provides updates on regulatory issues, technical updates, and crossover news from the SVS and SVN
- ▶ **VQI Quality Improvement Newsletter**
  - ▶ Distributed every other month
  - ▶ Focusing on QI processes, tools, and definitions

- Submit Project Charters and supporting documentation for presentations and posters to [QI@SVSPSO.ORG](mailto:QI@SVSPSO.ORG) or [cjackson@svspsso.org](mailto:cjackson@svspsso.org).
- Visit the VQI Members Only Website for sample charters, webinars, and presentations on VQI Quality Improvement Projects. [www.vqi.org](http://www.vqi.org)

- Randy DeMartino, MD (Mayo Clinic Rochester) is the new Chair of the AQC

- Current projects:
  - Common variable help text updates
  - OAAA registry revisions
  - SVS guidelines collaboration
  - COVID variables
  - Patient reported outcome variables

- Marc Passman, MD (UAB) new chair of the VQC taking over for Jose Almeida, MD
  - 1-3 year goals
    - Dedicated podium time for VQI at AVF
    - Update Varicose Vein and IVC quarterly interoperative dashboards
    - Create Venous Stent dashboard
    - Work on LTFU dashboards for all 3 venous procedures
    - Continue work C2 disease and appropriateness of care
    - Continue work with United Healthcare
    - IVC retrieval rate is 30% nationally, need to make this a national quality initiative
    - Create COPI (Center Opportunity for Process Improvement) reports for venous registries

- Nicholas Osborne, MD (Univ of Michigan) **FIRST** chair of the new Venous RAC
- Arterial RAC and Venous RAC alternate months for submissions:

<https://www.vqi.org/data-analysis/national-arterial-and-venous-rac-schedules/>

# Proposal Process:

1. Review list of projects approved to avoid duplication

<https://www.vqi.org/data-analysis/rac-approved-project-search/>

2. Submit proposal on line:

<http://abstracts123.com/svs1/meetinglogin>

- Appointments of Vice-Chairs to the VQC and VRAC
  - Dr. Mark Iafrati has been nominated to serve as Vice Chair of the Venous Quality Council
  - Dr. Fedor Lurie has been nominated to serve as Vice Chair of the Venous RAC
- Unblinding EVAR Imaging LTFU: Needs to be voted on by each region
- Dr. Goodney presented VISION reporting on EVAR Survival, Reintervention, and Surveillance
- The GC discussed the impact to moving to virtual regional meetings and ways to make calls more interactive.
- Dr. Beck is the new Vice-Chair of the Executive Committee
- The PSO will be appointing 2 new at-large members to the PSO Executive Committee

# M2S Updates

## Fall 2020

### Regional Group Meetings

# VQI Technology Updates

# Technology Released in Q1 2020

- **Barcode scanning feature for PVI device capture**

- Released on **2/26/2020**
- This new feature can be used to enter device information for all treatment types where the Product Number or DI is required (i.e., excludes plain balloons).
- This feature is designed to make device entry easier and more efficient for users who have access to a scanner, but the use of this feature is optional. Users may continue to manually enter device product codes and UDIs (unique device identifiers).

Occlusive Disease Information

Artery 1  
External Iliac  
Right

Site of Prior Treatment

TASC Grade

Total Treated Length  cm

Total Occlusion Length  cm

Calcification

Number Treatment Types

Device 1

Treatment Type

Stent Type

Product Number or DI

Manufacturer

Type

GUDID Diameter

GUDID Length

Scan Barcode



UDI

Please place cursor inside UDI field and scan the barcode. Then click "OK".

OK

- **Hemodialysis Access (HemoDA) minor revision**
  - Released on **3/26/2020**
  - Demographics tab:
    - GFR (eGFR): The GFR numeric field will not allow decimal values. If a decimal value is entered, the value will be automatically rounded to the nearest whole number.
    - PAD: "None" has been added to options.
    - HTN: Updated help text and criteria.
  - History tab:
    - Central Venous Dialysis Catheter Chest: "None" has been added to options.
  - Procedure tab:
    - Intraoperative Target Artery Diameter: Field updates to retire drop-down options and require numeric entry. One decimal value allowed, the value will be automatically rounded to the nearest tenth. Min/max range values are dependent on the selected Inflow Artery.

- **Hemodialysis Access (HemoDA) minor revision (continued)**
  - Procedure tab:
    - Intraoperative Target Vein Diameter: Field updates to retire drop-down options and require numeric entry. One decimal value allowed, the value will be automatically rounded to the nearest tenth. Min/max range values are dependent on the selected Inflow Artery.
  - Post-Op tab:
    - Periop Antibiotics: 3 new antibiotic fields have been added (“1st 2nd Gen Cephalosporin”, “Start <1hr Pre-op” and “Stop <24hr Post-op”).

- **Across-registry revision Q2 2020**

- Released on **4/9/2020**

- Hypertension Harmonization

- The Hypertension field (in the Demographics tab) was updated to align with current clinical guidelines. Help text and select options are being updated in the CAS, CEA, EVAR, IVC, Infra, LEA, Open AAA, PVI, Supra, TEVAR, VMC, and VUR registries as follows:
- New Help Text: “Hypertension = documented in History or recorded blood pressure  $\geq 130/80$  (elevation of either systolic or diastolic) on 3 or more occasions. No = no hypertension Yes, controlled = HTN treated with medication, but BP  $< 130/80$  deemed in control; Yes, uncontrolled = HTN not adequately controlled, typically  $\geq 130/80$  (elevation of either systolic or diastolic) on two occasions.”
- New select options are: “No”, “Yes, controlled”, or “Yes, uncontrolled.” The former option “Yes ( $\geq 140/90$  or history) was retired.

- **Across-registry revision Q2 2020 (continued)**
  - Antibiotics Harmonization
    - Data fields to collect Peri-op antibiotics in the Post-Op tab for the CEA, EVAR, Infra, Open AAA, Supra and TEVAR registries were retired and replaced with new data fields as described below. Peri-op antibiotics were not previously captured in the LEA registry, but the new set of fields were also added to the Post-op section of the amputation registry. Please review new help text associated with these fields.
      - The new subset of data fields are as follows:
        - » “1st 2nd Gen Cephalosporin”
        - » “Start <1hr Pre-op” (Displayed only if 1st 2nd Gen Cephalosporin is Yes.)
        - » “Stop <24hr Post-op” (Displayed only if 1st 2nd Gen Cephalosporin is Yes.)

- **Across-registry revision Q2 2020 (continued)**
  - Free text fields to capture details of “Other” Devices:
    - The VQI updated several registries to add free text fields, labeled as “Please Specify Other Device(s)”, to capture specific device details when “Other” is selected in device lists.
      - CEA: to capture “other” Patch Manufacturer in Procedure tab
      - CAS: to capture “other” EPD Type and “other” Flow Reversal Type in Procedure tab for lesions 1 and 2
      - EVAR: to capture “other” Anchors Used in Procedure and Re-Tx tab and on Follow-up Re-Tx 1, Re-Tx 2, and Re-Tx 3 tabs
      - IVC Filter: to capture “other” Device Manufacturer and “other” Filter Type in Procedure tab.
      - TEVAR: to capture “other” Anchor Type in Aortic Devices and Re-Tx tab and on Follow-up Re-Tx 1 and Re-Tx 2 tabs

- **TEVAR Revision Q2 2020**

- Released on **4/29/2020**

- Procedure Tab:

- Sheath size and closure device information will now be captured for right, left or bilateral access. The new fields appear once an “Access” type other than “None” has been selected.

- Largest Sheath Size (Fr) - The largest French sheath size used by side. There is a Min/Max range of 16-30. (A table with sheath sizes is included in the help text)
- Number of Closure Devices - The number of closure devices used by side (0 to >5).
- Closure Device Type – The brand name of the closure device(s) used at the access site. This field will appear if “Number of Closure Devices” is greater than zero.
- Specify Other - If “Other” is selected as the “Closure Device Type” this field will appear. Please enter manufacturer and device details by free-text.

- **TEVAR Revision Q2 2020 (continued)**
  - Post-Op Tab:
    - Several fields were updated or retired and replaced with new access side-specific data fields and options.
      - Complications section: These new fields will only display for right and/or left access once an access type other than “None” has been selected for the given side on the procedure tab.
        - » Access Site Hematoma / Pseudoaneurysm – The most extensive treatment of hematoma or pseudoaneurysm by side.
        - » Access Site Occlusion – The most extensive treatment for the occlusion by side.
        - » Access Site Infection – The depth and involvement of infection by side.
      - The new fields above replaced the following, which were retired:
        - » Puncture Site Hematoma
        - » Access Site Occlusion
        - » Surgical Site infection

# Technology Released in Q2 2020

- **TEVAR Revision Q2 2020 (continued)**
  - Post-Op Tab:
    - Re-intervention section:
      - Indication (Re-Tx) – The “Access Related” option was retired and new options to indicate “Right access related” and “Left access related” were added.

# Technology Released in Q2 2020

- **PVI revision in Q2 2020**
  - Released on **6/29/2020**
  - Demographics Tab:
    - The “Ambulation” field will no longer appear if the “Bed bound” option is chosen for the “Functional Status” field. Previously the “Ambulation” field displayed and defaulted to “Bedridden”. This change was applied to both the Demographics tab in the procedure form, as well as in the Long Term Follow-up form. The existing select option of “Bedridden” for the “Ambulation” field no longer appears on the form with this new dependency.
  - Procedure Tab:
    - Closure Device fields: The following fields were added for both access sites, in both the Basic and Comprehensive PVI forms:
      - “Number of Closure Devices”, with the options: “1, 2, 3, and >3”.
      - “Closure Outcome”, with the options: “Closure device successful; Closure device failed; Closure device failed, intervention; and Closure device failed, surgery”.
    - The “Closure Device Successful” field was retired, and appears in the Data Download files preceded with “R-” (R- Closure Device Successful).

- **PVI revision in Q2 2020 (continued)**
  - Post-Procedure Tab:
    - “Hematoma” field: The select options for the existing Hematoma fields (for access site 1 and 2 as applicable) were expanded for greater accuracy.
      - The following Hematoma options were maintained: “No, Minor, Transfusion and Thrombin injection”.
      - The prior “Surgical Rx” option was re-named “Surgical Re-Tx (intra-op or post-op)”
      - One new option was added: “Interventional Re-Tx (intra-op or post-op)”.
    - The “Right/Left Amputation Level” fields no longer appear if the “No” option is chosen for the “Amputation During Admission” field. The existing select option of “No” for the “Right and Left Amputation Level” fields no longer appear on the form with this new dependency.

- **Add PVI Procedure Context variables to Follow-up data download file**
  - Released on **6/29/2020**
  - In response to member feedback, the VQI added two new columns to the PVI Follow-up data download file to identify the specific arteries and sides treated as selected on the procedure form and displayed in the PATHWAYS follow-up form.
  - The new columns appear before the “Current Patency” fields in the PVI Long Term Follow-up Data Download file. Follow-Up Data Download file additional columns:
    - “Arteries Treated”
    - “Side”
  - The columns appear in groups by field: “Artery Treated 1, Artery Treated 2, Artery Treated 3, Artery Treated 4.., then Side 1, Side 2, Side 3, ..., then Current Patency 1, Current Patency 2”, etc.

# Technology Released in Q3 2020

- VSR diameter unit change mm<sup>2</sup> -> mm and related help text updates
  - Released on 7/15/2020
  - The units associated with the “Minimal Diameter Within Stenosis” and “Minimal Diameter at Reference Location” fields were changed from “mm<sup>2</sup>” to “mm”.

The screenshot displays a web-based data entry form with several sections:

- Demographics | History | Current Status | Procedure | Post-Procedure** (Navigation tabs)
- Procedure Information**
  - Patient Position: Select
  - Anesthesia:  None,  Minimal sedation,  Moderate sedation,  Deep sedation,  Local,  Tumescent,  Regional,  General
  - Peri-procedural Anticoagulation: Select
- Number of Access: 0** (Add)
- Field** (List): Max Sheath Size Fr., Access Site, Access Site Other, Side of Access Site, Ultrasound Guided Access
- Lesion Treatment/s:** Treatment Side Missing
- Number of Lesion Treatment Details: 0** (Add)
- Lesion Treatment Details**
  - Lesion Site: Select
  - Lesion Crossing Techniques:  Guidewire,  Crossing catheters,  Sharp recanalization,  Laser,  Other
  - Procedure Imaging:  None,  Venogram,  IVUS
  - IVUS Details**
    - When was IVUS Performed?: Select
    - Minimal Luminal Area Within Stenosis: [ ] mm<sup>2</sup>
    - Area of Vein at Reference Location: [ ] mm<sup>2</sup>
    - Maximum % Area Reduction: [ ] %
    - Minimal Diameter Within Stenosis: [ ] mm** (highlighted in red)
    - Minimal Diameter at Reference Location: [ ] mm** (highlighted in red)

# Technology Released in Q3 2020

- **Hemodialysis Access (HemoDA) revision for tapered graft**
  - Released on **7/29/2020**
  - Three new fields were added to the HDA registry to capture “Tapered Devices”. A new “Tapered Device” field was added to the Procedure tab in the Conduit Details section. If “Yes” is selected for the “Tapered Graft” field, then two new diameter fields display: “Tapered Graft Minimum Diameter” and “Tapered Graft Maximum Diameter”.

Conduit **Prosthetic graft** ▼

**Conduit Details**

Product Number or DI: 70T74 DI:00801741022388

Manufacturer: Bard Peripheral Vascular, Inc. ▼

Type: IMPRA® ePTFE Vascular Grafts ▼

GUDID Diameter: Unavailable ▼

**Tapered Graft**: Yes ▼

**Tapered Graft Minimum Diameter**: 4 mm

**Tapered Graft Maximum Diameter**: 7 mm

GUDID Length: 70 Centimeter ▼

**Tapered Graft** [X]

Tapered Device - A sterile artificial substitute for a blood vessel intended to replace or bypass the diseased or injured vessel. It is typically made of woven or knitted polyethylene terephthalate (Dacron) or polytetrafluoroethylene (PTFE) fabrics. Tapered Devices have two diameters (Min and Max). Some graft types have both straight and tapered options, only select "yes" if the graft being used is tapered. One example: GORE-TEX® Stretch Vascular Graft - Standard-walled.

- **Revised COVID-19 message for Follow-up Mandatory Fields**
  - Released on **7/29/2020**
  - The VQI added a temporary message about the impact of COVID-19 on LTFU completion rate calculations. The following message is displayed when submitting a LTFU that is missing any mandatory variable:
    - *“IMPORTANT: The PSO understands that routine follow up visits may not be possible due to COVID-19 state mandates. Special considerations will be part of our LTFU calculation for 2020, please collect all of the required fields that are possible during this time.”*
  - As a reminder, the VQI allows phone and telehealth appointments to be used for LTFU when Face-to-Face visits are not feasible.

- “Was this helpful?” feature for Help Text
  - Released on 7/29/2020
  - This new feature is to provide feedback regarding the current help text. For each help text field, users will have the option to indicate if the help text provided was useful or not. This information will help the VQI to identify data fields that may be unclear to members.
  - The “Was this helpful?” vote up/down button displays in the bottom right corner of the help text box:

## Procedure Date



Procedure Date should be entered in the MM/DD/YYYY format.

Discharge Date should be greater than or equal to Procedure Date which should be greater than or equal to Admit Date.

Required to save any portion of procedure data.

Was this helpful? Yes No

# Other Projects in Progress

- Across-registry revision to add COVID-19 variables
- TEVAR Revision to align with SVS/STS guidelines
- Vascular Ultrasound Registry (VUR) major revision
- Varicose Vein Registry (VVR) revision for New CEAP Clinical Classification
- Venous Stent Registry (VSR) revision for New CEAP Clinical Classification
- Vascular Medicine Consult (VMC) registry revision to add new drug category and update CAD
- VQI PRO collection for PVI

# Registry Projects

- These projects are conducted within the SVS PSO and only non-identifiable 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 is **Open for Enrollment**

- The SVS PSO is excited to announce the reopening 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

## TEVAR Dissection Surveillance Project is **Open for Enrollment**

- 0 of the 180 required patients enrolled (5 potential cases in process)
  - Retrospective enrollment allowed- All eligible cases from December 31, 2018 (protocol FDA approval date)
- 12 of 40 sites enrolled (11 more in contracting)
  - This project is conducted within the SVS PSO and only non-identifiable data (removal of patient, center and physician information) will be provided to Medtronic 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.

For more information, please contact:

[tevarproject@m2s.com](mailto:tevarproject@m2s.com)

## Medtronic IN.PACT® Admiral® DCB ISR Project

## The Bard® LifeStent® Popliteal Artery Stent Project



- A Prospective Registry Surveillance of the clinical use of the Bard® LifeStent® Vascular Stent Systems.
- Objective: To conduct long term post-market surveillance of the safety and effectiveness of the Bard® LifeStent® Vascular Stent Systems for the treatment of symptomatic de novo or restenotic lesions in the popliteal artery.
- Patients will have 12 month and a 24 month follow up visits.
- Total reimbursement of **\$1,400 per patient** for a patient followed annually for 2 years
- 2 additional fields added:
  - Check box to indicate that patient is eligible to enroll project based on the inclusion and exclusion criteria.
  - Post-procedure – site will be asked if the patient has had a stroke.
  - Angios performed at re-intervention and sent to M2S.

## Enrollment Complete

- 74 of the 74 required patients enrolled
  - Retrospective enrollment allowed- All eligible cases from 10/1/2016 (protocol FDA approval date)
- 29 of 30 sites enrolled
  - This project is conducted within the SVS PSO and only non-identifiable data (removal of patient, center and physician information) will be provided to Bard 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.

- The Medtronic IN.PACT<sup>®</sup> Admiral<sup>®</sup> DCB ISR Project Post-market registry surveillance of the clinical use of the Medtronic IN.PACT<sup>®</sup> Admiral<sup>®</sup> Paclitaxel-Coated PTA Balloon.
- Objective: To assess the long-term safety and performance of the IN.PACT<sup>®</sup> Admiral<sup>®</sup> DCB in a U.S. population for the treatment of ISR lesions in the superficial femoral and popliteal arteries.
- Patients will be followed at 12, 24 and 36 months
- Total reimbursement of **\$1,950 per patient** for a patient followed annually for 3 years
- 1 additional field added:
  - Check box to indicate that patient is eligible to enroll project based on the inclusion and exclusion criteria.

## Enrollment Complete

- 300 of the 300 required patients enrolled
  - Retrospective enrollment allowed- All eligible cases from December 6, 2016 (protocol FDA approval date)
- 50 of 50 sites enrolled
  - This project is conducted within the SVS PSO and only non-identifiable data (removal of patient, center and physician information) will be provided to Medtronic 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.

## For More Information Contact:

### Medtronic IN.PACT® Admiral® DCB ISR Project

Anita Duxbury

[MedtronicAdmiralDCB@m2s.com](mailto:MedtronicAdmiralDCB@m2s.com)

### The Bard® LifeStent® Popliteal Artery Stent Project

Charlotte Stirewalt

[BardLifeStent@m2s.com](mailto:BardLifeStent@m2s.com)

# PATHWAYS Support

## 2019 Claims Validation

The 2019 Claims Validation process was launched in July.

- All hospital managers and physicians at selected centers have been notified.
- The list of centers selected to participate in the 2019 validation cycle is posted to the Resources in PATHWAYS.
- An interactive claims validation webinar will be announced soon and will be recorded for future reference.

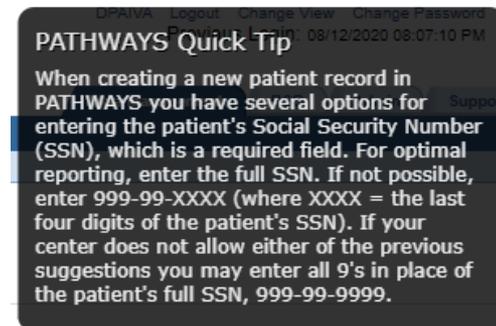
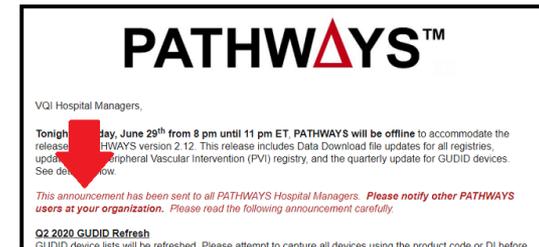
## PATHWAYS Educational Webinars

- A reporting webinar series (2 sessions) will be scheduled in the Fall.
- Visit the Resources tab in PATHWAYS to access previously recorded webinars.

## PATHWAYS Communication

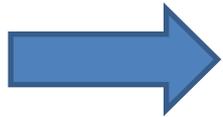
We understand that some members do not always receive mass emails from M2S, due to firewall and spam filter configurations at their centers. In an effort to ensure that all members are aware of important registry updates, we've taken the following steps:

- Each announcement that we send will indicate which user groups it was sent to.
- A notification is posted in PATHWAYS with a link to each announcement sent for all centers impacted by the update.
- Please make sure you review the notices that pop up on your PATHWAYS screen to see important reminders and abstraction tips also!



- ▶ What did you like about this meeting?
- ▶ What can we do better?
- ▶ Next meeting location?
  - ▶ Grant funding issues with Industry
  - ▶ Remote?
- ▶ VOTE on unblinding LTFU sac diameter
- ▶ Nominations for RAC and VRAC representative

- **PLEASE SIGN INTO RING CENTRAL MEETING with your FULL NAME to get CREDIT for ATTENDANCE!**  
(no exceptions will be made)



More than one of you in a room? Email Leka Johnson @ [ljohnson@svspsso.org](mailto:ljohnson@svspsso.org) to get credit

- **So Again.....You have 7 days!!!**

For CME/CE credit, please click this link:

[https://dmu.co1.qualtrics.com/jfe/form/SV\\_dj3nVgjPUKzVORL](https://dmu.co1.qualtrics.com/jfe/form/SV_dj3nVgjPUKzVORL)

Complete both parts of the form and **Don't forget to hit SUBMIT** for credit!

# Meeting Adjourned

