Southeastern Vascular Study Group (SEVSG)

Friday, April 3, 2020
Remote
10:00 – 12:00 am
PLEASE SIGN INTO RING CENTRAL MEETING with your FULL NAME to get CREDIT for ATTENDANCE!
(no exceptions will be made)
AGENDA

10:00 - 10:05 am
Welcome and SEVSG Update – Yazan Duwayri, MD and Charles Ross, MD

10:05 – 11:05 am
Regional Report Findings - Charles Ross, MD

11:05 -11:20 am
National VQI and Pathways Development Update – Carrie Bosela, RN

11:20 -11:30 am
Arterial Quality Council Update – Adam Beck, MD

11:30 – 11:40 am
Research Advisory Council – Emily Spangler, MD

11:40 -11:50 am
Venous Quality Council Update - Olamide Alabi, MD

11:50 – 12:00 pm
Closing Remarks: SEVSG Future Directions & Action Items – Charles Ross, MD
WELCOME AND INTRODUCTIONS

Piedmont Heart Institute
Piedmont Atlanta Hospital

Atlanta (Buckhead)

2020 – 2022 SE-VSG
- Regional home office

Charles B. Ross, MD, FACS, FSVS
Kathie Shemwell, RN
Michelle Glanville, RN, MBA, CPHQ
Southeastern Vascular Study Group (SE-VSG)
Participation and Growth - 2019

<table>
<thead>
<tr>
<th>State</th>
<th># new cts 2019</th>
<th>Total # centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Georgia</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Florida</td>
<td>10</td>
<td>51</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11</strong></td>
<td><strong>74</strong></td>
</tr>
</tbody>
</table>
AdventHealth Celebration
AdventHealth Orlando
Albany Vascular Specialist Center
AU Medical Center
Baptist Hospital of Miami
Bartow Regional Medical Center
Bayfront Health Seven Rivers
Brookwood Baptist Medical Center
Cape Canaveral Hospital
Cardiothoracic and Vascular Surgical Associates
Central Florida Regional Hospital
Coastal Vascular & Interventional, PLLC
Coastal Vein and Vascular Specialists
Cobb Hospital
Delray Medical Center
Emory Healthcare
Emory St. Joseph’s Hospital
Florida Hospital Zephyrhills
Floyd Medical Center
Grady Memorial Hospital (GA)
Health Park Medical Center
Holmes Regional Medical Center
Kennestone Hospital
Lakeland Regional Medical Center
Lyerly Baptist Neurosurgery
Martin Medical Center
Mayo Clinic Florida
Mease Countryside Hospital
Mease Dunedin Hospital
Memorial Hospital Pembroke
Memorial Hospital West
Memorial Regional Hospital
Miami Vein Center
Mobile Infirmary Association
Morton Plant Hospital
Morton Plant North Bay
Mount Sinai Medical Center (Miami)
North Florida Regional Medical Center
North Okaloosa Medical Center
Northeast Georgia Medical Center, Inc.
Northside Hospital Atlanta
Northside Hospital Cherokee
Northside Hospital Forsyth
Ocala Regional Medical Center
Orlando Health - Dr. P. Phillips Hospital
Orlando Health - Health Central Hospital
Orlando Health - Orlando Regional
Orlando Health - South Seminole Hospital
Piedmont Athens Regional Medical Center
Piedmont Hospital
Providence Hospital
Redmond Regional Medical Center
Rush Foundation Hospital
Saint Luke’s Memorial Hospital, Inc.
Sarasota Memorial Hospital
Savannah Health Services, LLC d/b/a Memorial Health
University Medical Center
South Florida Baptist
South Miami Hospital
St. Joseph’s Hospital
St. Joseph’s Hospital North
St. Joseph’s Hospital South
Surgical Specialists of Central Florida
Tampa General Hospital
Tenet Florida Physician Services, LLC
The Medical Center, Navicent Health
The University of Texas M.D. Anderson Cancer Center
The Vein and Vascular Institute of Tampa Bay
Tradition Medical Center
UF Health – Shands Hospital
University Of Alabama Medical Center
Vascular & General Surgical Specialists of SWFL
Vascular Associates Of South Alabama
Vascular Surgery Associates
Winter Haven Hospital
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 < 0.05.
4) This report includes all data that had been entered into the VQI as of January 31, 2020.
Dashboard

The table below summarizes your center’s results as presented in each of the subsequent reports and provides regional and national benchmarks for comparison. In the “Your Center” column, percentages represent the rate of cases with the noted outcome. Numbers in parentheses are the number of cases with the outcome/the total number of cases meeting the exclusion criteria (see the full report for details). In the “Region” and “VQI” columns, the numbers represent the 25th, 50th (median) and 75th percentiles for centers in your region and across all centers in the VQI.

Your center’s results are highlighted in green if your center is at or above the top 25th percentile nationally, in yellow if your center is among the middle 50% of centers, and in red if at or below the bottom 25th percentile.
<table>
<thead>
<tr>
<th>Registry</th>
<th>Outcome</th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>% (n/N)</td>
<td>[25</td>
<td>50</td>
</tr>
<tr>
<td>All</td>
<td>Total Procedure Volume</td>
<td>[25</td>
<td>83</td>
<td>186]</td>
</tr>
<tr>
<td>Multiple (Jan-Dec 2017)</td>
<td>Long-Term Follow-Up</td>
<td>[49%</td>
<td>75%</td>
<td>81%]</td>
</tr>
<tr>
<td>Multiple</td>
<td>Discharge Medications</td>
<td>[77%</td>
<td>87%</td>
<td>94%]</td>
</tr>
<tr>
<td>AVACCESS</td>
<td>Primary AVF vs. Graft</td>
<td>[65%</td>
<td>79%</td>
<td>91%]</td>
</tr>
<tr>
<td>Transfemoral CAS</td>
<td>Stroke/Death in Hospital</td>
<td>[0%</td>
<td>0%</td>
<td>0%]</td>
</tr>
<tr>
<td>TCAR</td>
<td>Stroke/Death in Hospital</td>
<td>[0%</td>
<td>0%</td>
<td>0%]</td>
</tr>
<tr>
<td>CEA</td>
<td>Asymptomatic Stroke/Death in Hospital</td>
<td>[0%</td>
<td>0%</td>
<td>0%]</td>
</tr>
<tr>
<td>CEA</td>
<td>Symptomatic Stroke/Death in Hospital</td>
<td>[0%</td>
<td>0%</td>
<td>0%]</td>
</tr>
<tr>
<td>CEA</td>
<td>Asymptomatic LOS&gt;1 Day</td>
<td>[38%</td>
<td>22%</td>
<td>12%]</td>
</tr>
<tr>
<td>CEA</td>
<td>Symptomatic LOS&gt;1 Day</td>
<td>[33%</td>
<td>18%</td>
<td>0%]</td>
</tr>
<tr>
<td>EVAR</td>
<td>LOS&gt;2 Days</td>
<td>[23%</td>
<td>13%</td>
<td>8%]</td>
</tr>
<tr>
<td>EVAR (Jan-Dec 2017)</td>
<td>Sac Diameter Reported at LTFU</td>
<td>[20%</td>
<td>50%</td>
<td>81%]</td>
</tr>
<tr>
<td>INFRA</td>
<td>Major Complications</td>
<td>[5%</td>
<td>0%</td>
<td>0%]</td>
</tr>
<tr>
<td>IVCF (Jul 2018-Jun 2019)</td>
<td>Filter Retrieval</td>
<td>[0%</td>
<td>12%</td>
<td>33%]</td>
</tr>
<tr>
<td>LEAAP</td>
<td>Postop Complications</td>
<td>[13%</td>
<td>9%</td>
<td>3%]</td>
</tr>
<tr>
<td>OAAA</td>
<td>In-Hospital Mortality</td>
<td>[4%</td>
<td>0%</td>
<td>0%]</td>
</tr>
<tr>
<td>PVI</td>
<td>ABI/Toe Pressure Reported</td>
<td>[34%</td>
<td>61%</td>
<td>87%]</td>
</tr>
<tr>
<td>SUPRA</td>
<td>Postop Complications</td>
<td>NA (&lt;3 centers)</td>
<td>[6%</td>
<td>0%</td>
</tr>
<tr>
<td>TEVAR (Jan-Dec 2017)</td>
<td>Sac Diameter Reported at LTFU</td>
<td>[42%</td>
<td>67%</td>
<td>73%]</td>
</tr>
<tr>
<td>EVAR</td>
<td>SVS Sac Size Guideline</td>
<td>[63%</td>
<td>71%</td>
<td>81%]</td>
</tr>
<tr>
<td>OAAA</td>
<td>Cell-Saver Guideline</td>
<td>NA (&lt;3 centers)</td>
<td>[95%</td>
<td>100%</td>
</tr>
<tr>
<td>OAAA</td>
<td>Iliac Inflow Guideline</td>
<td>[100%</td>
<td>100%</td>
<td>100%]</td>
</tr>
</tbody>
</table>
### Total Procedure Volume, All Years

Includes all procedures with surgery date through December 31, 2019.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Your Center (N)</th>
<th>Your Region (N)</th>
<th>VQI Overall (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVACCESS</td>
<td>4792</td>
<td></td>
<td>51328</td>
</tr>
<tr>
<td>CAS</td>
<td>2992</td>
<td></td>
<td>37113</td>
</tr>
<tr>
<td>CEA</td>
<td>10439</td>
<td></td>
<td>133761</td>
</tr>
<tr>
<td>EVAR</td>
<td>3348</td>
<td></td>
<td>52772</td>
</tr>
<tr>
<td>INFRA</td>
<td>4332</td>
<td></td>
<td>56834</td>
</tr>
<tr>
<td>IVCF</td>
<td>1310</td>
<td></td>
<td>13425</td>
</tr>
<tr>
<td>LEAMP</td>
<td>1886</td>
<td></td>
<td>16216</td>
</tr>
<tr>
<td>OAAA</td>
<td>799</td>
<td></td>
<td>13039</td>
</tr>
<tr>
<td>PVI</td>
<td>10706</td>
<td></td>
<td>211916</td>
</tr>
<tr>
<td>SUPRA</td>
<td>1547</td>
<td></td>
<td>18661</td>
</tr>
<tr>
<td>TEVAR</td>
<td>1561</td>
<td></td>
<td>16002</td>
</tr>
<tr>
<td>Varicose Veins</td>
<td>3346</td>
<td></td>
<td>37051</td>
</tr>
<tr>
<td>Overall</td>
<td>47058</td>
<td></td>
<td>658118</td>
</tr>
</tbody>
</table>
Procedure Volume by Center in Your Region (Jan-Dec 2019)

Other centers in your region  Your center

Centers (centers with <10 cases not shown)

Procedure Volume Across VQI (Jan-Dec 2019)


Regions (regions with <3 centers with at least 10 cases not shown)
Physician Specialties by Region

Physician Specialties Across VQI (as of January 31, 2020, N=8051 Physicians)
Physician Specialties Across Your Region (as of January 31, 2020, N=760 Physicians)

- Vascular Surgery: 45%
- Cardiology: 15%
- Radiology: 10%
- Other: 5%
- General Surgery: 5%
- Neurosurgery: 5%
- None: 5%
- Cardiothoracic Surgery: 5%
Percentage of Procedures With Follow-Up Within 9-21 Months

Procedures performed between January 1 and December 31, 2017

Data for this report include all cases with surgery date between January 1 and December 31, 2017, that had been entered into the VQI as of January 31, 2020. The table below shows the number of procedures in the VQI, and the percentage of those procedures with long-term follow-up.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVACCESS</td>
<td>702 (70%)</td>
<td>7940 (58%)</td>
<td></td>
</tr>
<tr>
<td>CAS</td>
<td>413 (60%)</td>
<td>5307 (65%)</td>
<td></td>
</tr>
<tr>
<td>CEA</td>
<td>1504 (64%)</td>
<td>18275 (72%)</td>
<td></td>
</tr>
<tr>
<td>EVAR</td>
<td>452 (64%)</td>
<td>7199 (72%)</td>
<td></td>
</tr>
<tr>
<td>INFRA</td>
<td>735 (61%)</td>
<td>7643 (72%)</td>
<td></td>
</tr>
<tr>
<td>IVCF</td>
<td>158 (75%)</td>
<td>2362 (69%)</td>
<td></td>
</tr>
<tr>
<td>LEAMP</td>
<td>418 (45%)</td>
<td>2807 (59%)</td>
<td></td>
</tr>
<tr>
<td>OAAA</td>
<td>95 (62%)</td>
<td>1277 (74%)</td>
<td></td>
</tr>
<tr>
<td>PVI</td>
<td>1399 (60%)</td>
<td>29157 (74%)</td>
<td></td>
</tr>
<tr>
<td>SUPRA</td>
<td>215 (55%)</td>
<td>2352 (69%)</td>
<td></td>
</tr>
<tr>
<td>TEVAR</td>
<td>246 (63%)</td>
<td>2418 (66%)</td>
<td></td>
</tr>
<tr>
<td>Overall (Jan-Dec 2017)</td>
<td>6337 (62%)</td>
<td>86737 (70%)</td>
<td></td>
</tr>
<tr>
<td>Overall (Jan-Dec 2016)</td>
<td>5917 (66%)</td>
<td>75316 (73%)</td>
<td></td>
</tr>
</tbody>
</table>
Percentage With Long-Term Follow-Up by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Long-Term Follow-Up by Center in Your Region (Jan-Dec 2017)

- **Other centers in your region**
- **Your center**

Centers (centers with <10 cases not shown)

*** indicates center's rate differs significantly from the regional rate.

Long-Term Follow-Up by Region Across VQI (Jan-Dec 2017)

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

“Others” indicates centers that do not belong to a regional group. *** indicates region’s rate differs significantly from the VQI rate.
# Discharge Medications

Procedures performed between January 1 and December 31, 2019

Excludes patients who died in hospital and patients who were not treated for medical reason. “Antiplatelet” is defined as ASA or P2Y12 inhibitor.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of procedures in the VQI, and the percentage of patients receiving discharge medications.

<table>
<thead>
<tr>
<th>Number of Procedures at Your Center</th>
<th>Antiplatelet+Statin</th>
<th>Antiplatelet Only</th>
<th>Statin Only</th>
<th>Neither</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EVAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFRA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEAMP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OAAA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PVI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUPRA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEVAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your Center Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your Region Overall</td>
<td>6257</td>
<td>79%</td>
<td>12%</td>
<td>5%</td>
</tr>
<tr>
<td>VQI Overall</td>
<td>82204</td>
<td>85%</td>
<td>9%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Percentage Receiving Discharge Antiplatelet+Statin by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
**Discharge Antiplatelet+Statin Rate by Center in Your Region (Jan-Dec 2019)**

- Other centers in your region
- Your center

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**Discharge Antiplatelet+Statin Rate by Region Across VQI (Jan-Dec 2019)**


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*“ Others” indicates centers that do not belong to a regional group. “***” indicates region’s rate differs significantly from the VQI rate.*
Hemodialysis Access: Percentage of Primary AVF vs. Graft

Procedures performed between January 1 and December 31, 2019
Excludes patients with previous access procedure in the same arm.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of access procedures meeting the inclusion criteria in the VQI, and the percentage of those cases that were AVF vs. graft. Cases with missing data elements necessary for the construction of inclusion/exclusion criteria are not included in the table.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of access procedures meeting inclusion criteria</td>
<td></td>
<td>376</td>
<td>5411</td>
</tr>
<tr>
<td>Percentage with primary AVF</td>
<td></td>
<td>72%</td>
<td>84%</td>
</tr>
</tbody>
</table>
Rate of Primary AVF Access by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of Primary AVF Access in Your Region (Jan-Dec 2019)

- Other centers in your region
- Your center

Centers (centers with <10 cases not shown)

*** indicates center’s rate differs significantly from the regional rate.

Rate of Primary AVF Access by Region Across VQI (Jan-Dec 2019)

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

*** indicates region’s rate differs significantly from the VQI rate.
Transfemoral Carotid Artery Stent: Stroke or Death in Hospital

Procedures performed between January 1 and December 31, 2019

Asymptomatic admissions, excluding prior ipsilateral CAS, CAS for intracranial treatment and dissection, trauma and “other” lesion types. Asymptomatic patients are those who had no ipsilateral or contralateral TIA or stroke within 120 days prior to surgery. Procedures with an approach other than “Femoral” are also excluded.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of Transfemoral CAS procedures meeting the inclusion criteria in the VQI, and the observed and expected rates of stroke or death in hospital for those cases. Cases with missing data elements necessary for the construction of inclusion/exclusion criteria are not included in the table.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Transfemoral CAS procedures meeting inclusion criteria</td>
<td>95</td>
<td>1504</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among procedures meeting inclusion criteria</td>
<td>2.1%</td>
<td>1.6%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>91</td>
<td>1394</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among cases with complete data</td>
<td>2.2%</td>
<td>1.5%</td>
<td></td>
</tr>
<tr>
<td>Expected rate of stroke or death among cases with complete data*</td>
<td>2%</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.71</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

*“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.
Rate of In-Hospital Stroke or Death After Transfemoral CAS by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
TransCarotid Artery Revascularization: Stroke or Death in Hospital

Procedures performed between January 1 and December 31, 2019

Asymptomatic admissions, excluding prior ipsilateral CAS, CAS for intracranial treatment and dissection, trauma and “other” lesion types. Asymptomatic patients are those who had no ipsilateral or contralateral TIA or stroke within 120 days prior to surgery.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of TCAR procedures meeting the inclusion criteria in the VQI, and the observed and expected rates of stroke or death in hospital for those cases. Cases with missing data elements necessary for the construction of inclusion/exclusion criteria are not included in the table.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of TCAR procedures meeting inclusion criteria</td>
<td></td>
<td>428</td>
<td>3543</td>
</tr>
<tr>
<td>Observed rate of stroke or death among procedures meeting inclusion criteria</td>
<td></td>
<td></td>
<td>0.5% 1%</td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td></td>
<td>411</td>
<td>3358</td>
</tr>
<tr>
<td>Observed rate of stroke or death among cases with complete data</td>
<td></td>
<td></td>
<td>0.5% 1%</td>
</tr>
<tr>
<td>Expected rate of stroke or death among cases with complete data*</td>
<td></td>
<td>1.1%</td>
<td>NA</td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td></td>
<td></td>
<td>0.34 NA</td>
</tr>
</tbody>
</table>

*“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.
Rate of In-Hospital Stroke or Death After TCAR by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of In-Hospital Stroke or Death After TCAR in Your Region (Jan-Dec 2019)

- Other centers in your region
- Your center

Centers (centers with <10 cases not shown)

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

Rate of In-Hospital Stroke or Death After TCAR by Region Across VQI (Jan-Dec 2019)

- Observed
- Expected

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

"***" indicates region's observed rate differs significantly from its expected rate.
## Carotid Endarterectomy: Asymptomatic Stroke or Death in Hospital

Procedures performed between January 1 and December 31, 2019

Asymptomatic admissions, excluding prior ipsilateral CEA and concomitant CABG, endovascular or other arterial procedure. Asymptomatic patients are those who had no ipsilateral or contralateral TIA or stroke within 120 days prior to surgery.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of CEA Asymptomatic procedures meeting the inclusion criteria in the VQI, and the observed and expected rates of stroke or death in hospital for those cases. Cases with missing data elements necessary for the construction of inclusion/exclusion criteria are not included in the table.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Asymptomatic CEA procedures meeting inclusion criteria</td>
<td>1069</td>
<td>10775</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among procedures meeting inclusion criteria</td>
<td>0.6%</td>
<td>0.8%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>1006</td>
<td>10302</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among cases with complete data</td>
<td>0.6%</td>
<td>0.8%</td>
<td></td>
</tr>
<tr>
<td>Expected rate of stroke or death among cases with complete data*</td>
<td>0.9%</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.4</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

*“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.
Rate of Asymptomatic Stroke or Death in Hospital After CEA by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of Asymptomatic Stroke or Death in Hospital After CEA in Your Region (Jan-Dec 2019)

Centers (centers with <10 cases not shown)

*** indicates center’s observed rate differs significantly from its expected rate.

Rate of Asymptomatic Stroke or Death in Hospital After CEA by Region Across VQI (Jan-Dec 2019)

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

*** indicates region’s observed rate differs significantly from its expected rate.
Carotid Endarterectomy: Symptomatic Stroke or Death in Hospital

Procedures performed between January 1 and December 31, 2019

Symptomatic admissions, excluding prior ipsilateral CEA and concomitant CABG, endovascular or other arterial procedure. Symptomatic patients are those who had an ipsilateral or contralateral TIA or stroke within 120 days prior to surgery.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of CEA Symptomatic procedures meeting the inclusion criteria in the VQI, and the observed and expected rates of stroke or death in hospital for those cases. Cases with missing data elements necessary for the construction of inclusion/exclusion criteria are not included in the table.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Symptomatic CEA procedures meeting inclusion criteria</td>
<td>490</td>
<td>6268</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among procedures meeting inclusion criteria</td>
<td>1%</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>471</td>
<td>6046</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among cases with complete data</td>
<td>1.1%</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td>Expected rate of stroke or death among cases with complete data*</td>
<td>2.1%</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.14</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

*“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.
Rate of Symptomatic Stroke or Death in Hospital After CEA by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of Symptomatic Stroke or Death in Hospital After CEA in Your Region (Jan-Dec 2019)

Other centers in your region  Your center

Observed  Expected

Centers (centers with <10 cases not shown)

*** indicates center’s observed rate differs significantly from its expected rate.

Rate of Symptomatic Stroke or Death in Hospital After CEA by Region Across VQI (Jan-Dec 2019)

Observed  Expected

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

*** indicates region’s observed rate differs significantly from its expected rate.
Carotid Endarterectomy: Percentage of Asymptomatic Patients With LOS>1 Day

Procedures performed between January 1 and December 31, 2019

Asymptomatic admissions, excluding prior ipsilateral CEA, concomitant CABG, proximal endovascular or other arterial operation, in-hospital death with LOS<=1 day, procedures done on weekends or not done on admission day. LOS is based on the midnight rule used for hospital billing. Asymptomatic patients are those who had no ipsilateral or contralateral TIA or stroke within 120 days prior to surgery.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of CEA Asymptomatic procedures meeting inclusion criteria in the VQI, and the observed and expected rates of those cases with LOS>1 Day. Cases with missing data elements necessary for the construction of inclusion/exclusion criteria are not included in the table.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Asymptomatic CEA procedures meeting inclusion criteria</td>
<td>935</td>
<td>10113</td>
<td></td>
</tr>
<tr>
<td>Observed rate of LOS&gt;1 day among procedures meeting inclusion criteria</td>
<td>23%</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>890</td>
<td>9747</td>
<td></td>
</tr>
<tr>
<td>Observed rate of LOS&gt;1 day among cases with complete data</td>
<td>23%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Expected rate of LOS&gt;1 day among cases with complete data*</td>
<td>22%</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.35</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

*“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.
Rate of CEA Asymptomatic Patients With LOS>1 Day by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of CEA Asymptomatic Patients With LOS>1 Day in Your Region (Jan-Dec 2019)

- Other centers in your region
- Your center
- Observed
- Expected

Centers (centers with <10 cases not shown)

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

Rate of CEA Asymptomatic Patients With LOS>1 Day by Region Across VQI (Jan-Dec 2019)

- Observed
- Expected

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

*** indicates region's observed rate differs significantly from its expected rate.
Carotid Endarterectomy: Percentage of Symptomatic Patients With LOS>1 Day

Procedures performed between January 1 and December 31, 2019

Symptomatic admissions, excluding prior ipsilateral CEA, concomitant CABG, proximal endovascular or other arterial operation, in-hospital death with LOS<=1 day, procedures done on weekends or not done on admission day. LOS is based on the midnight rule used for hospital billing. Symptomatic patients are those who had an ipsilateral or contralateral TIA or stroke within 120 days prior to surgery.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of CEA Symptomatic procedures meeting inclusion criteria in the VQI, and the observed and expected rates of those cases with LOS>1 Day. Cases with missing data elements necessary for the construction of inclusion/exclusion criteria are not included in the table.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Symptomatic CEA procedures meeting inclusion criteria</td>
<td>214</td>
<td>3463</td>
<td></td>
</tr>
<tr>
<td>Observed rate of LOS&gt;1 day among procedures meeting inclusion criteria</td>
<td>24%</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>206</td>
<td>3354</td>
<td></td>
</tr>
<tr>
<td>Observed rate of LOS&gt;1 day among cases with complete data</td>
<td>24%</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>Expected rate of LOS&gt;1 day among cases with complete data*</td>
<td>28%</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.31</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

*"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.
Rate of CEA Symptomatic Patients With LOS>1 Day by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of CEA Symptomatic Patients With LOS>1 Day in Your Region (Jan-Dec 2019)

- Other centers in your region
- Your center

Centers (centers with <10 cases not shown)

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

Rate of CEA Symptomatic Patients with LOS>1 Day by Region Across VQI (Jan-Dec 2019)

- Observed
- Expected

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

** indicates region's observed rate differs significantly from its expected rate.
Endovascular AAA Repair: Percentage of Patients With LOS >2 Days

Procedures performed between January 1 and December 31, 2019

Excludes ruptured aneurysms and in-hospital deaths with LOS \( \leq 2 \) days, patients with prior aortic surgery, patients transferred from another hospital, procedures not done on day of admission and weekend procedures. LOS is based on the midnight rule used for hospital billing.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of EVAR procedures meeting the inclusion criteria and the observed and expected rates of those cases with LOS >2 Days.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of EVAR procedures meeting inclusion criteria</td>
<td>333</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>Observed rate of LOS &gt;2 days among procedures meeting inclusion criteria</td>
<td>11%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>312</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Observed rate of LOS &gt;2 days among cases with complete data</td>
<td>11%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Expected rate of LOS &gt;2 days among cases with complete data*</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.65</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

*“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.
Rate of EVAR Patients With LOS >2 Days by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of EVAR Patients With LOS>2 Days in Your Region (Jan-Dec 2019)

Centers (centers with <10 cases not shown)

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

Rate of EVAR Patients With LOS>2 Days by Region Across VQI (Jan-Dec 2019)

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

"**" indicates region's observed rate differs significantly from its expected rate.
EVAR: Rate of Sac Diameter Reporting at Long-Term Follow-Up

Procedures performed between January 1 and December 31, 2017

Excludes patients who were converted to open or died within 21 months of surgery.

Data for this report include all cases with surgery date between January 1 and December 31, 2017, that had been entered into the VQI as of January 31, 2020. The table below shows the number of EVAR procedures in the VQI, and the percentage of those cases in which the patient had a follow-up visit between 9 and 21 months post-surgery at which a sac diameter was recorded.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of EVAR procedures</td>
<td></td>
<td>421</td>
<td>6707</td>
</tr>
<tr>
<td>Percentage with sac diameter recorded at follow-up</td>
<td>54%</td>
<td>60%</td>
<td></td>
</tr>
</tbody>
</table>
Rate of LTFU Sac Diameter Reporting by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of LTFU Sac Diameter Reporting in Your Region (Jan-Dec 2017)

- Other centers in your region
- Your center

Centers (centers with <10 cases not shown)

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

Rate of LTFU Sac Diameter Reporting by Region Across VQI (Jan-Dec 2017)

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

"***" indicates region's rate differs significantly from the VQI rate.
Infrainguinal Bypass: Rate of Major Complications

Procedures performed between January 1 and December 31, 2019

Includes only patients with indication of rest pain or tissue loss. Major complications are defined as in-hospital death, ipsilateral BK or AK amputation or graft occlusion.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of INFRA cases with indication of rest pain or tissue loss in the VQI, and the percentage of those cases that resulted in in-hospital death, ipsilateral amputation or graft occlusion.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of INFRA procedures meeting inclusion criteria</td>
<td></td>
<td>263</td>
<td>4129</td>
</tr>
<tr>
<td>Percentage with major complications after INFRA</td>
<td></td>
<td>3.8%</td>
<td>4.5%</td>
</tr>
</tbody>
</table>
Rate of Major Complications After INFRA by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of Major Complications After INFRA in Your Region (Jan-Dec 2019)

Centers (centers with <10 cases not shown)

** indicates center's rate differs significantly from the regional rate.

Rate of Major Complications After INFRA by Region Across VQI (Jan-Dec 2019)

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

** indicates region's rate differs significantly from the VQI rate.
IVCF: Percentage of Temporary Filters With Retrieval or Attempt at Retrieval

Procedures performed between July 1, 2018 and June 30, 2019

Excludes patients with permanent filters and patients who have died since discharge.

Data for this report include all cases with surgery date between July 1, 2018 and June 30, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of IVCF procedures meeting the inclusion criteria in the VQI, and the percentage of those cases in which the filter was retrieved, or an attempt was made to retrieve it, at any time post-procedure.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of procedures meeting inclusion criteria</td>
<td>111</td>
<td>1403</td>
<td></td>
</tr>
<tr>
<td>Percentage with filter retrieval, or attempt at retrieval</td>
<td>8%</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Percentage not retrieved because not clinically indicated</td>
<td>7%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Percentage not retrieved because patient declined</td>
<td>0%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Percentage not retrieved because lost to follow-up</td>
<td>0%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Percentage not retrieved because deemed too late for removal</td>
<td>0%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Percentage not retrieved because planned later removal</td>
<td>0%</td>
<td>1%</td>
<td></td>
</tr>
</tbody>
</table>
Rate of IVCF Retrieval by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of IVCF Retrieval in Your Region (July 2018-June 2019)

- Other centers in your region
- Your center

Rate of IVCF Retrieval by Region Across VQI (July 2018-June 2019)

- Southeast
- Virginias
- Carolinas
- VQI
- New York
- Mid-America

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

** indicates region's rate differs significantly from the VQI rate.
Lower-Extremity Amputation: Rate of Postop Complications

Procedures performed between January 1 and December 31, 2019

Complications are defined as myocardial infarction, dysrhythmia, congestive heart failure, surgical site infection, renal and/or respiratory complication.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of LEAMP cases in the VQI, and the percentage of those cases that resulted in complication.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of amputation procedures</td>
<td>339</td>
<td></td>
<td>2969</td>
</tr>
<tr>
<td>Percentage with complications after LEAMP</td>
<td>7%</td>
<td></td>
<td>11%</td>
</tr>
</tbody>
</table>
Rate of Complications After LEAMP by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of Complications After LEAMP in Your Region (Jan-Dec 2019)

- Other centers in your region
- Your center

Cents (centers with <10 cases not shown)

** indicates center's rate differs significantly from the regional rate.

Rate of Complications After LEAMP by Region Across VQI (Jan-Dec 2019)

- Carolinas*
- Southeast*
- New York
- VQI
- Up-Midwest
- Virginias*
- Mid-America
- New England*

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

** indicates region's rate differs significantly from the VQI rate.
Non-Ruptured Open AAA: In-Hospital Mortality

Procedures performed between January 1 and December 31, 2019
Excludes ruptured aneurysms.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of OAAA procedures meeting the inclusion criteria in the VQI, and the observed and expected rates of in-hospital death for those cases.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of OAAA procedures meeting inclusion criteria</td>
<td></td>
<td></td>
<td>1003</td>
</tr>
<tr>
<td>Observed rate of in-hospital death among procedures meeting inclusion criteria</td>
<td></td>
<td></td>
<td>4.5%</td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>60</td>
<td></td>
<td>952</td>
</tr>
<tr>
<td>Observed rate of in-hospital death among cases with complete data</td>
<td></td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Expected rate of in-hospital death among cases with complete data*</td>
<td></td>
<td></td>
<td>4.7%</td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td></td>
<td>0.76</td>
<td>NA</td>
</tr>
<tr>
<td>Observed rate of in-hospital death among procedures with infrarenal proximal clamp</td>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>Observed rate of in-hospital death among procedures with suprarenal proximal clamp</td>
<td></td>
<td></td>
<td>0%</td>
</tr>
</tbody>
</table>

*“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.
Rate of In-Hospital Death After OAAA by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of In-Hospital Death After OAAA in Your Region (Jan-Dec 2019)

Centers (centers with <10 cases not shown)

*** indicates center’s observed rate differs significantly from its expected rate.

Rate of In-Hospital Death After OAAA by Region Across VQI (Jan-Dec 2019)

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

*** indicates region’s observed rate differs significantly from its expected rate.
PVI: Percentage of Claudicants With ABI/Toe Pressure Reported Before Procedure

Procedures performed between January 1 and December 31, 2019

“ABI or toe pressure reported” indicates at least one measure was recorded for the side of the operation, or on both sides for bilateral and aortic procedures.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of PVI procedures with indication of claudication in the VQI, and the percentage of those cases in which ABI or toe pressure was recorded.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of PVI procedures with indication of claudication</td>
<td>983</td>
<td>13917</td>
<td></td>
</tr>
<tr>
<td>Percentage with ABI/toe pressure recorded before procedure</td>
<td>56%</td>
<td>76%</td>
<td></td>
</tr>
<tr>
<td>Percentage who were current smokers</td>
<td>36%</td>
<td>38%</td>
<td></td>
</tr>
</tbody>
</table>
Rate of ABI/Toe Pressure Assessment Before PVI by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of ABI/Toe Pressure Assessment Before PVI in Your Region (Jan-Dec 2019)

- Other centers in your region
- Your center

Centers (centers with <10 cases not shown)

** indicates center's rate differs significantly from the regional rate.

Rate of ABI/Toe Pressure Assessment Before PVI by Region Across VQI (Jan-Dec 2019)

- Southeast
- New York
- Rocky Mtns.
- Midwest
- Up-Midwest
- VQI
- Canada
- MidSouth
- So. Cal.
- New England
- Nor. Cal.
- SOVONET
- Mid.America
- Carolinas
- Michigan
- Virginias
- Mid-Atlantic
- G. Lakes

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

** indicates region's rate differs significantly from the VQI rate.
Suprainguinal Bypass: Rate of Major Complications

Procedures performed between January 1 and December 31, 2019

Includes only patients with indication of rest pain or tissue loss. Major complications are defined as in-hospital death, ipsilateral BK or AK amputation or graft occlusion.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of SUPRA cases in the VQI, and the percentage of those cases that resulted in complication.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of SUPRA procedures</td>
<td></td>
<td>NA (&lt;3 centers)</td>
<td>848</td>
</tr>
<tr>
<td>Percentage with major complications after SUPRA</td>
<td></td>
<td></td>
<td>6%</td>
</tr>
</tbody>
</table>
Rate of Major Complications After SUPRA by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of Major Complications After SUPRA in Your Region (Jan-Dec 2019)

Centers (centers with <10 cases not shown)

*** indicates center’s rate differs significantly from the regional rate.

Rate of Major Complications After SUPRA by Region Across VQI (Jan-Dec 2019)

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

*** indicates region’s rate differs significantly from the VQI rate.
TEVAR: Rate of Sac Diameter Reporting at Long-Term Follow-Up

Procedures performed between January 1 and December 31, 2017

Includes only patients with Pathology=aneurysm or aneurysm from dissection. Excludes patients who died within 21 months of surgery.

Data for this report include all cases with surgery date between January 1 and December 31, 2017, that had been entered into the VQI as of January 31, 2020. The table below shows the number of TEVAR procedures in the VQI, and the percentage of those cases in which the patient had a follow-up visit between 9 and 21 months post-surgery at which a sac diameter was recorded.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of TEVAR procedures</td>
<td></td>
<td>138</td>
<td>1338</td>
</tr>
<tr>
<td>Percentage with sac diameter recorded at follow-up</td>
<td></td>
<td>49%</td>
<td>57%</td>
</tr>
</tbody>
</table>
Rate of LTFU Sac Diameter Reporting by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of LTFU Sac Diameter Reporting in Your Region (Jan-Dec 2017)

- Other centers in your region
- Your center

Centers (centers with <10 cases not shown)

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

Rate of LTFU Sac Diameter Reporting by Region Across VQI (Jan-Dec 2017)

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

"**" indicates region's rate differs significantly from the VQI rate.
EVAR: Percentage of Elective Patients With AAA Diameter Within SVS Guideline (≥5.5cm for Men; ≥5 cm for Women)

Procedures performed between January 1 and December 31, 2019

Excludes non-elective procedures. If the patient has any iliac aneurysm, the guideline is considered to have been met regardless of AAA diameter.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of elective EVAR procedures in the VQI, and the percentage of those cases meeting the SVS sac size guideline.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of elective EVAR procedures</td>
<td></td>
<td>372</td>
<td>5875</td>
</tr>
<tr>
<td>Percentage meeting SVS sac size guideline</td>
<td></td>
<td>69%</td>
<td>72%</td>
</tr>
</tbody>
</table>
Rate of EVAR Cases Meeting Sac Size Guideline by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of EVAR Cases Meeting Sac Size Guideline in Your Region (Jan-Dec 2019)

- Other centers in your region
- Your center

Centers (centers with <10 cases not shown)

*** indicates center's rate differs significantly from the regional rate.

Rate of EVAR Cases Meeting Sac Size Guideline by Region Across VQI (Jan-Dec 2019)

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

*** indicates region's rate differs significantly from the VQI rate.
OAAA: Percentage of Patients Meeting SVS Cell-Saver Guideline (Cell Salvage or Ultrafiltration Device Used if EBL>500 ml)

Procedures performed between January 1 and December 31, 2019

Excludes patients with EBL≤500 ml.

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of OAAA procedures with EBL>500 ml in the VQI, and the percentage of those cases meeting the SVS cell-saver guideline.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of OAAA procedures meeting inclusion criteria</td>
<td>NA (&lt;3 centers)</td>
<td></td>
<td>1035</td>
</tr>
<tr>
<td>Percentage meeting cell-saver guideline</td>
<td></td>
<td></td>
<td>93%</td>
</tr>
</tbody>
</table>
Rate of OAAA Cases Meeting Cell-Saver Guideline by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of OAAA Cases Meeting Cell-Saver Guideline in Your Region  (Jan-Dec 2019)

- Other centers in your region
- Your center

Centers (centers with <10 cases not shown)

“*” indicates center’s rate differs significantly from the regional rate.

Rate of OAAA Cases Meeting Cell-Saver Guideline by Region Across VQI  (Jan-Dec 2019)

- VQI
- G. Lakes
- Michigan
- Up. Midwest
- New England*
- Mid-Atlantic

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

“*” indicates region’s rate differs significantly from the VQI rate.
**OAAA: Percentage of Procedures Meeting SVS Internal Iliac Inflow Guideline (Preservation of Flow Maintained to at Least One Internal Iliac Artery)**

Procedures performed between January 1 and December 31, 2019

Data for this report include all cases with surgery date between January 1 and December 31, 2019, that had been entered into the VQI as of January 31, 2020. The table below shows the number of OAAA procedures in the VQI, and the percentage of those cases meeting the SVS iliac inflow guideline.

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of OAAA procedures</td>
<td></td>
<td>77</td>
<td>1171</td>
</tr>
<tr>
<td>Percentage meeting iliac inflow guideline</td>
<td>97%</td>
<td>97%</td>
<td></td>
</tr>
</tbody>
</table>
Rate of OAAA Cases Meeting Iliac Inflow Guideline by Year

Regional data are not shown for the region with <3 centers with at least 10 cases.
Rate of OAAA Cases Meeting Iliac Inflow Guideline in Your Region (Jan-Dec 2019)

Centers (centers with <10 cases not shown)

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

Rate of OAAA Cases Meeting Iliac Inflow Guideline by Region Across VQI (Jan-Dec 2019)

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

"**" indicates region's rate differs significantly from the VQI rate.
REGIONAL IMPROVEMENT PROJECTS

Charles Ross, MD
- ABI
- LTFU Sac Diameter
- IVC Filter retrieval
- Increasing LTFU %
National VQI Update:
Carrie Bosela, SVS PSO
Number of Participating Centers

Location of VQI Participating Centers

674 VQI Centers
673 centers in North America
1 center in Singapore
18 Regional Quality Groups
Total Procedure Volume tab reflects net procedures added to the registry for the month

### Total Procedures Captured (as of 3/1/2020)

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peripheral Vascular Intervention</td>
<td>221,501</td>
</tr>
<tr>
<td>Carotid Endarterectomy</td>
<td>136,944</td>
</tr>
<tr>
<td>Infra-Inguinal Bypass</td>
<td>59,433</td>
</tr>
<tr>
<td>Endovascular AAA Repair</td>
<td>55,241</td>
</tr>
<tr>
<td>Hemodialysis Access</td>
<td>54,675</td>
</tr>
<tr>
<td>Carotid Artery Stent</td>
<td>39,859</td>
</tr>
<tr>
<td>Varicose Vein</td>
<td>37,298</td>
</tr>
<tr>
<td>Supra-Inguinal Bypass</td>
<td>19,606</td>
</tr>
<tr>
<td>Thoracic and Complex EVAR</td>
<td>17,494</td>
</tr>
<tr>
<td>Lower Extremity Amputations</td>
<td>17,241</td>
</tr>
<tr>
<td>IVC Filter</td>
<td>13,878</td>
</tr>
<tr>
<td>Open AAA Repair</td>
<td>13,419</td>
</tr>
</tbody>
</table>

VQI Total Procedure Volume

- Feb-14 to Feb-20
Save the Date!

2020 VQI@VAM June 16 – 17, 2020 | VAM – June 17-20
Toronto Convention Center, Toronto, Ontario, Canada

June 16, 2020 12:00PM – 6:30PM*
June 17, 2020 8:00AM – 5:00PM

*Poster Presentation and Networking Reception –
Tuesday, June 16th at 5:00PM to 6:30PM
Registration Information

Registration/housing will open in early March. The registration fee for VQI@VAM will be $295. Registrants will be asked to make Tuesday breakout selections at the time of registration. More details to come!

– If you are planning on attending, please be aware that all U.S. residents entering Canada will be required to travel with a valid passport.
– Your passport expiration date may not be within six months of your travel dates.
– For additional information (including passport requirements for international travelers), please visit the Canada Border Services Agency’s website.
VQI@VAM DRAFT AGENDA

June 16, 2020 12:00PM – 6:30PM

- Concurrent Abstraction Sessions: Team presentations (Data Managers and Physician)
- Poster/Networking Reception

June 17, 2020 8:00AM – 5:00PM

- Pathways Update by M2S
- Quality Improvement Presentations
- Registry Updates: Medicine, Stent, Ultrasound, Hemo, Infra/Supra and OAAA
- Compliance with CPGs: Claudication
- Reporting Update – Highlight new InSights Long-Term Follow-up reports
- Reporting and Statistics Overview: What’s in your Regional Reports and Dashboards
- EMR Integration Updates
- Introduction of New PSO Staff – Kristopher, Caroline, Leka and Associate Medical Directors
- Paclitaxel and DELTA – Drs. Bertges and Resnic
- Benefits of Medicare-matched Data from VISION: EVAR – Dr. Goodney
- How to use the BDS and tips for creating a successful RAC application
- RAC Policies: Industry Studies, Device Identification and Data Use Agreements
- Rapid-Fire Research Session
Quality Improvement Activities
VQI NATIONAL INITIATIVES:

- EVAR: LTFU Imaging Sac Diameter
  - How do we move the bar?
- Discharge Medications: Statin and Antiplatelet
- Other suggestions for National QI Initiatives?
2019 QUALITY IMPROVEMENT

- Thirty seven charters submitted
  - LTFU – 9 (EVAR Imaging, IVCF, general LTFU)
  - D/C Medications – 20
  - Clinical – 3 (LOS, limb salvage)
  - Documentation – 5 (ABIs, Frailty project, ABIs – QOL)

- Focused phone calls were well attended
- Four QI webinars with presentations from five data managers!
2020 Participation Award Criteria
No changes

<70% = 0 points
>=70% = 2
>=80% = 4
>=90% = 6

NOTE: Centers having a LTFU rate of less than 50% for two consecutive years are placed on probation. A center’s data is then excluded from de-identified datasets. Additionally, the center cannot obtain research datasets or participate in industry studies for the specific registries with an LTFU rate of < 50%.
PARTICIPATION AWARD 2020-REGIONAL MEETING
ATTENDANCE

Current Regional Meeting attendance criteria
• Each regional meeting will be scored on a 0-3 point scale
  – For centers with 3 or more MDs, 1 point for each MD attending, up to a max of 3 points
  – If site has only 2 MDs and 1 attends, 2 points
  – If site has <3 MDs and all attend, 3 points
  – Extra point for support staff attending with an MD (but not if it pushes total for that meeting over 3 points).
  – If no MD attends, 0 points, regardless of support staff attendance).
• If total score for both meetings is < 6 points, the center can receive an additional point if any non-physician staff member attends the Annual VQI meeting at VAM

Changes/Additions
• Regional physician leaders and regional lead data managers will get one extra point
• The host site will get 1 extra point
• Support staff will receive a maximum of 1 point regardless of MD attendance. Ex – if 1, 3, or 5... support staff at a center attended a meeting, the center will get 1 point.
Scoring on 0 – 6 point scale to keep consistent with other measures

- Initiation of a QI Project, evidenced by submitting a Project Charter
- Presenting a QI/Research Project (presentation or poster) at a Regional VQI, Regional Society Meeting, or Hospital Board Meeting
- Presenting a QI/Research Project (presentation or poster) at the National VQI or Vascular Annual Meeting
- Publish VQI based article in a Peer Reviewed Journal

- Six-point maximum credit for QI even though additional points can be acquired
- Each VQI center submits **one QI project per center** for the Participation Award
Registry Subscriptions – No changes

1-2 registries = 0 points
3-5 registries = 2
6-8 registries = 4
≥ 9 registries = 6

- If the center is a vein-only center (i.e. could only possibly subscribe to 1 registry) = 1 point
Improvement of rates or maintaining excellent performance rates on National QI Initiatives — **No changes**

- Any hospital that shows a statistically significant improvement in either its rate of EVAR LTFU imaging or DC medications from the prior year to the scoring year will receive one point per measure.

- Any hospital that was at or above the 75th percentile for either measure in the prior year will get one point per measure if it remains at or above the 75th percentile in either measure in the scoring year, as long as either of its rates has not gotten significantly worse.
Scoring – No changes

- Four categories scored, each on a 0-6 point scale:
  - LTFU (weighted 40%)
  - Meeting attendance (weighted 30%)
  - QI project involvement (weighted 20%)
  - Registry Subscriptions (weighted 10%)

- The final score calculated as follows:
  Total points = 4 x LTFU + 3 x Attendance + 2 x QIP + 1 x registry
Other Criteria

- **NO** star award if no one from a center attends either meeting (Spring and Fall), regardless of total points

- **NO** star award for centers at <50% for LTFU, regardless of total points
MARKETING YOUR PARTICIPATION AWARD

- PSO limitations
  - Not allowed to publicly report any outcomes data, which is the primary reason we have a Participation Award and not a Quality/Outcomes Award
  - The Participation Award is linked to critical activities that show a center’s commitment to quality improvement and patient engagement, but the award is not and cannot be referenced as an indicator directly tied to quality of care
  - Cannot be used for competitive marketing purposes
  - We provide a standard press release when the awards are released
  - Each site now receives a Participation Award certificate for 1, 2, and 3 star recipients. 3 star recipients receive award at regional/national meeting. 1 & 2 start recipients get a PDF file sent to the center’s lead physician and lead data manager.
  - This is a Participation Award and should not be interpreted or positioned as a direct indicator of the Quality of Care provided by your institution
  - Data from the SVS VQI/SVS PSO can never be used for punitive purposes
3 STAR AWARD RECIPIENTS

- The Emory Clinic
- University of Florida - Gainesville
For general inquiries about the Participation Awards, please contact Cheryl Jackson at cjiangson@svspso.org

Submit Project Charters and supporting documentation for presentations and posters to QI@SVSPSO.ORG or cjiangson@svspso.org.

Visit the VQI Members Only Website for webinars and presentations on VQI Quality Improvement Projects. www.vqi.org
## 2020 PUSH REPORT SCHEDULE:

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Data Cut</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional Reports</strong></td>
<td></td>
</tr>
<tr>
<td>Spring 2020</td>
<td>1-Feb-20</td>
</tr>
<tr>
<td>Fall 2020</td>
<td>1-Jul-20</td>
</tr>
<tr>
<td><strong>Center Dashboards</strong></td>
<td></td>
</tr>
<tr>
<td>Fall 2019</td>
<td>1-Sep-19</td>
</tr>
<tr>
<td>Winter 2019</td>
<td>1-Dec-19</td>
</tr>
<tr>
<td>Cumulative</td>
<td>1-Dec-19</td>
</tr>
<tr>
<td>Spring 2020</td>
<td>1-Mar-20</td>
</tr>
<tr>
<td>Summer 2020</td>
<td>1-Jun-20</td>
</tr>
<tr>
<td>Fall 2020</td>
<td>1-Sep-20</td>
</tr>
<tr>
<td><strong>Quarterly QI Reports (DC meds/EVAR Imaging)</strong></td>
<td></td>
</tr>
<tr>
<td>2019, Report 3</td>
<td>1-Oct-19</td>
</tr>
<tr>
<td>2020, Report 1</td>
<td>1-Apr-20</td>
</tr>
<tr>
<td>2020, Report 2</td>
<td>1-Jul-20</td>
</tr>
<tr>
<td>2020, Report 3</td>
<td>1-Oct-20</td>
</tr>
<tr>
<td><strong>Participation Awards</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1-Feb-20</td>
</tr>
</tbody>
</table>
Hemodialysis Access Revisions: Q3 2019

NEW Venous Stent Registry: Q3 2019

Varicose Vein: Released in Q1 2020

NEW Vascular Medicine Registry: Q1 2020 (collaboration with SVM and AHA)

2020 Planned Revisions:
  – Infra, Supra
  – Open AAA (adding thoracoabominal)
NEW VENOUS STENT REGISTRY

Inclusion Criteria:
Percutaneous (closed) and/or cut-down (open) procedures to treat patients with symptomatic venous obstructions due to chronic thrombosis and/or some venous compression disorders. Vessels included: Inferior Vena Cava, Common iliac vein, External iliac vein, Common Femoral Vein, Deep Femoral Vein, Femoral Vein, Popliteal Vein.

- Acute obstruction of the Vein;
- Chronic thrombotic obstruction= Chronic Stenosis/Obstruction of the Vein;
- Non-thrombotic stenosis/compression such as May Thurner (iliac vein compression syndrome)

Exclusion Criteria:

- Venous Stent of the Internal Iliac (hypogastric), Great Saphenous Vein, Superior vena cava, Renal Veins, Subclavian vein, Jugular vein, Innominate vein and any upper extremity veins
- Vein Diameters that are not treatable per stent sizing recommendations
- Venous Inflow or Outflow issues precluding stent placement
NEW VASCULAR MEDICINE REGISTRY

**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 AUDITS:

- **Pathways Audit Tool:**
  - Potential error in data entry

- **Third Party Source Data Audits:**
  - Upload data into their share a file
  - Randomly selected sites and procedures
  - Phase III will require SVS to collect the data
Recent Surveys

- **VQI Excluded Cases Survey:** Interest in a tool to track excluded cases according to the VQI exclusion criteria?
- **Claims Validation Process:**
  - Spread out over 3 years or do all registries once every 3 years?
  - Only applies to centers with more than 6 registries
  - VOLUNTARY!
December, 2018 - Katsanos meta-analysis reported increased mortality with Paclitaxel devices at 2-5 years

VQI used Data Extraction and Longitudinal Trend Analysis (DELTA), a risk adjusted software application designed for signal detection in clinical registries, to evaluate mortality of Paclitaxel devices in PVI registry
Jens Eldrup-Jorgensen, MD  Maine Medical
Daniel Bertges, MD  UVMMC
Fred Resnic, MD  Lahey
Michel Matheny, MD, MS, MPH  Vanderbilt
Misti Malone, PhD  US FDA
Danica Maric-Dabic, MD, PhD, MMSc  US FDA
Aaron Lottes, PhD, MBA  Cook Medical
Joshua Smale, BS  BD Bard

Daniel Bertges, MD, Jens Eldrup-Jorgensen, MD, Fred Resnic, MD, et.al.

Full details about the study are available at clinicaltrials.gov under the identifier NCT04110288.
Authors: Daniel Bertges, MD, Jens Eldrup-Jorgensen, MD, Fred Resnic, MD, et.al.

In December, 2018, a meta-analysis of randomized trials of paclitaxel devices for the treatment of femoral-popliteal disease reported higher 2 and 5 year mortality in patients treated with paclitaxel devices.1 These findings were subsequently validated by an FDA analysis – a potentially concerning signal of increased long-term mortality in study subjects treated with paclitaxel-coated products compared to patients treated with uncoated devices prompting 3 letters of notification to providers. For further information please see the 3 prior FDA communications and the executive summary of the June 2019 Circulatory System Devices Panel Meeting.2-5

In response to this mortality signal, the Society for Vascular Surgery Patient Safety Organization has conducted surveillance of mortality in the Vascular Quality Initiative Peripheral Vascular Intervention registry. The analysis was conducted in collaboration with Dr. Fred Resnic at the Lahey Clinic using Data Extraction and Longitudinal Trend Analysis (DELTA), a risk adjusted software application designed for signal detection in clinical registries. Full details about the study are available at clinicaltrials.gov under the identifier NCT04110288.
NO DIFFERENCE MORTALITY IN VQI–BALLOON vs DCB

Figure 1. Kaplan-Meier Survival Plot for estimated two-year freedom from death due to any cause for paclitaxel drug coated balloon (green) as compared with plain balloon treatment (blue).
Figure 2. Kaplan-Meier Survival Plot for estimated two-year freedom from death due to any cause for paclitaxel eluting stent (green) as compared with bare metal stent treatment (blue).
PACLITAXEL ON-GOING WORK:

- In conjunction with RAPID
  - MDEpiNet Registry Assessment of Peripheral Interventional Devices

- Two additional studies planned
  - Lead by Dr. Bertges and Dr. Jorgensen
  - Prospective DELTA analysis
    - Lahey Clinic Data Extraction and Longitudinal Trend Analysis
    - Active surveillance for early signal detection
  - VISION Medicare claims match analysis
    - MDEpiNet Vascular Implant Surveillance and Interventional Outcomes Network
    - Claims linkage allows long term follow up
PROFESSIONAL GUIDELINES -

• Are they being followed?
• Do they impact outcomes?
OBJECTIVES: SVS AAA Guidelines

• Use Vascular Quality Initiative (VQI) registry to assess compliance
• And impact on outcomes
GRADE  Grading of Recommendations, Assessment, Development, Evaluation

- **Strength of Recommendation**
  - 1 – Strong – “We recommend”
  - 2 – Weak – “We suggest”

- **Level of Evidence**
  - A – High
  - B – Moderate
  - C – Low

- **Good practice statement - Ungraded**
Antibiotic (1A) – Compliance
EVAR – 94% (27-100%)  OAAA 93%(60-100%)
Antibiotic (1A) – Compliance
EVAR – 94% (27-100%)  OAAA 93% (60-100%)
Antibiotic (1A) – Compliance
EVAR – 94% (27-100%)  OAAA 93% (60-100%)

Room for improvement
Cell Salvage (1B) – Compliance
OAAA 92% (25-100%)
Cell Salvage (1B) – Decreased one year mortality
OAAA 92% (25-100%)

Focus for QI efforts
Tobacco cessation (1C) – Compliance
EVAR 55% (13-100%)  OAAA 40% (0-83%)
Tobacco cessation (1C) – Compliance
EVAR 55% (13-100%)     OAAA 40% (0-83%)
Tobacco cessation (1C) – Compliance
EVAR 55% (13-100%)         OAAA 40% (0-83%)

Decreased respiratory complications and decreased in-hospital and one year mortality
Decreased respiratory complications and decreased one year mortality
Tobacco cessation (1C) – Compliance
EVAR 55% (13-100%)  OAAA 40% (0-83%)

Room for improvement
SUMMARY:

- Compliance was measurable using VQI registries
- Compliance was quite variable – even guidelines with 97% centers with compliance that ranged 51-100%
- **Compliance** with guidelines (especially high quality) was associated with improved patient outcomes
SUMMARY, cont

- Antibiotic – EVAR – Decreased SSI, MACE, and in-hospital mortality
- Internal Iliac Artery – OAAA – Marginally decreased in-hospital and one year mortality
- Cell Salvage – OAAA – Decreased one year mortality
- Tobacco cessation – EVAR – Decreased respiratory complications and in-hospital and one year mortality
- Tobacco cessation – OAAA - Decreased respiratory complications and one year mortality
CONCLUSIONS:

- The degree and impact of compliance with AAA guidelines is dependent on the grade of evidence.
- Registry assessment may confirm value of a guideline and help inform guideline writing committees.
- Guidelines may also be used to inform content of clinical registries.
Registry participation provides an objective assessment of compliance and performance

Registry reports may be used as a focus for quality improvement efforts

Claudication Guidelines Work Group currently working on gap analysis with VQI data

On-going work with SVS Clinical Practice Guidelines Committee to align with VQI data collection
Arterial Quality Council: Adam Beck, MD
Opioid Workgroup is formed and charged with putting forth recommendations on how the VQI can be used to track, monitor and benchmark opioid utilization. Pilot planned with Infra.

Continued refinement to Global Unique Device Identification Database (GUDID) integration in PVI

Initiating Future Registry Updates
- Harmonizing Common Variables across all registries
- Updating Infra/Supra Registries
- Updating OAAA
InSights EVAR LTFU REPORT:

- Tested by selected sites
- To be rolled out to all sites soon
- Over time LTFU reports to be created for all registries

<table>
<thead>
<tr>
<th>Follow-up</th>
<th>My Region</th>
<th>*P &lt;=</th>
<th>All VQI</th>
<th>*P &lt;= .1</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Patients = 52)</td>
<td>(Patients = 511)</td>
<td>(vs. Region)</td>
<td>(Patients = 7113)</td>
<td>(vs. AllVqI)</td>
</tr>
<tr>
<td>(Cases = 52)</td>
<td>(Cases = 511)</td>
<td></td>
<td>(Cases = 7113)</td>
<td></td>
</tr>
<tr>
<td>Cases with any follow-up</td>
<td>0 %</td>
<td>13.9 % (71/511)</td>
<td>0.008</td>
<td>16.3 % (1160/7105)</td>
</tr>
<tr>
<td>Cases with LTFU &gt;= 9 months</td>
<td>0 %</td>
<td>0.2 % (1/511)</td>
<td>1</td>
<td>0.4 % (30/7105)</td>
</tr>
<tr>
<td>Cases with LTFU &gt;= 9 months and imaging</td>
<td>0 %</td>
<td>0.2 % (1/511)</td>
<td>1</td>
<td>0.2 % (14/7105)</td>
</tr>
</tbody>
</table>

Survival

- Freedom from Death (1yr K/M) | - | - | 0.496 | 40.3% ± 5.4% | 0.033 |
## InSights EVAR LTFU REPORT:

<table>
<thead>
<tr>
<th>Status at most recent follow-up</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Living Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>0 %</td>
<td>98.5 % (64/65)</td>
<td>–</td>
<td>98.2 % (1083/1103)</td>
</tr>
<tr>
<td>Homeless</td>
<td>0 %</td>
<td>0 %</td>
<td>&lt; 0.001</td>
<td>0.1 % (1/1103)</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>0 %</td>
<td>1.5 % (1/65)</td>
<td>–</td>
<td>1.7 % (19/1103)</td>
</tr>
<tr>
<td>New Nursing Home</td>
<td>0 %</td>
<td>1.5 % (1/65)</td>
<td>–</td>
<td>1.4 % (15/1103)</td>
</tr>
<tr>
<td><strong>Functional Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full</td>
<td>0 %</td>
<td>100.0 % (4/4)</td>
<td>0.046</td>
<td>58.6 % (109/186)</td>
</tr>
<tr>
<td>Light Work</td>
<td>0 %</td>
<td>0 %</td>
<td>0.046</td>
<td>30.1 % (56/186)</td>
</tr>
<tr>
<td>Self-care</td>
<td>0 %</td>
<td>0 %</td>
<td>0.046</td>
<td>5.9 % (11/186)</td>
</tr>
<tr>
<td>Assisted Care</td>
<td>0 %</td>
<td>0 %</td>
<td>0.046</td>
<td>5.4 % (10/186)</td>
</tr>
<tr>
<td>Bed Bound</td>
<td>0 %</td>
<td>0 %</td>
<td>0.046</td>
<td>0 %</td>
</tr>
<tr>
<td><strong>Smoking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior</td>
<td>0 %</td>
<td>75.0 % (3/4)</td>
<td>–</td>
<td>55.2 % (106/192)</td>
</tr>
<tr>
<td>Current</td>
<td>0 %</td>
<td>0 %</td>
<td>0.046</td>
<td>31.2 % (60/192)</td>
</tr>
<tr>
<td>Never</td>
<td>0 %</td>
<td>25.0 % (1/4)</td>
<td>–</td>
<td>13.5 % (26/192)</td>
</tr>
<tr>
<td>Quit Since Procedure</td>
<td>0 %</td>
<td>25.0 % (1/4)</td>
<td>–</td>
<td>7.3 % (14/192)</td>
</tr>
<tr>
<td>Started Since Procedure</td>
<td>0 %</td>
<td>0 %</td>
<td>0.046</td>
<td>1.6 % (3/192)</td>
</tr>
<tr>
<td><strong>Renal Function</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Onset Dialysis</td>
<td>0 %</td>
<td>0 %</td>
<td>0.046</td>
<td>1.6 % (3/191)</td>
</tr>
<tr>
<td>Creatinine increase &gt; 0.5 mg/dl</td>
<td>0 %</td>
<td>0 %</td>
<td>0.317</td>
<td>2.7 % (2/74)</td>
</tr>
</tbody>
</table>
### InSights EVAR LTFU REPORT:

<table>
<thead>
<tr>
<th>Medication</th>
<th>0 %</th>
<th>75.0 % (3/4)</th>
<th>–</th>
<th>81.3 % (157/193)</th>
<th>–</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antiplatelet</td>
<td>0 %</td>
<td>50.0 % (2/4)</td>
<td>–</td>
<td>74.1 % (143/193)</td>
<td>–</td>
</tr>
<tr>
<td>Statin</td>
<td>0 %</td>
<td>25.0 % (1/4)</td>
<td>–</td>
<td>17.7 % (34/192)</td>
<td>–</td>
</tr>
</tbody>
</table>

**Imaging at most recent follow-up**

<table>
<thead>
<tr>
<th></th>
<th>100.0 % (18/18)</th>
<th>86.1 % (440/511)</th>
<th>0.178</th>
<th>83.7 % (5945/7105)</th>
<th>0.12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Among Patients having f/u</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0 %</td>
<td>25.0 % (1/4)</td>
<td>–</td>
<td>47.2 % (91/193)</td>
<td>–</td>
</tr>
<tr>
<td>CT/CTA</td>
<td>0 %</td>
<td>50.0 % (2/4)</td>
<td>–</td>
<td>42.5 % (82/193)</td>
<td>–</td>
</tr>
<tr>
<td>Duplex</td>
<td>0 %</td>
<td>25.0 % (1/4)</td>
<td>–</td>
<td>13.0 % (25/193)</td>
<td>–</td>
</tr>
<tr>
<td>MR/MRA</td>
<td>0 %</td>
<td>0 %</td>
<td>0.046</td>
<td>0.5 % (1/193)</td>
<td>–</td>
</tr>
<tr>
<td>Angio</td>
<td>0 %</td>
<td>0 %</td>
<td>0.046</td>
<td>0.5 % (1/193)</td>
<td>–</td>
</tr>
<tr>
<td>Plain film</td>
<td>0 %</td>
<td>0 %</td>
<td>0.046</td>
<td>0 %</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

### Max AAA Diameter

<table>
<thead>
<tr>
<th></th>
<th>0 %</th>
<th>0 %</th>
<th>0.157</th>
<th>27.0 % (27/100)</th>
<th>–</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shrinkage &gt;= 5mm</td>
<td>0 %</td>
<td>100.0 % (2/2)</td>
<td>0.157</td>
<td>64.0 % (64/100)</td>
<td>–</td>
</tr>
<tr>
<td>No Change &gt;= 5mm</td>
<td>0 %</td>
<td>0 %</td>
<td>0.157</td>
<td>9.0 % (9/100)</td>
<td>–</td>
</tr>
</tbody>
</table>
## InSights EVAR LTFU REPORT:

<table>
<thead>
<tr>
<th>Complications</th>
<th>Access Site</th>
<th>Access Complication Treatment Required</th>
<th>Graft Limb Occlusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infection</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pseudoaneurysm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stenosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Occlusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access Site</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infection</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pseudoaneurysm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stenosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Occlusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access Complication Treatment Required</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medical</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interventional</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surgical</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graft Limb Occlusion</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unilateral</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bilateral</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## InSights EVAR LTFU REPORT:

### Renal Artery Encroachment

<table>
<thead>
<tr>
<th>Condition</th>
<th>None</th>
<th>100.0 % (3/3)</th>
<th>0.083</th>
<th>98.0 % (100/102)</th>
<th>–</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stenosis</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>2.0 % (2/102)</td>
<td>–</td>
</tr>
<tr>
<td>Occlusion</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>0 %</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

### Endoleak, current

<table>
<thead>
<tr>
<th>Condition</th>
<th>None</th>
<th>66.7 % (2/3)</th>
<th>–</th>
<th>83.2 % (84/101)</th>
<th>–</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type Ia</td>
<td>0 %</td>
<td>33.3 % (1/3)</td>
<td>–</td>
<td>1.0 % (1/101)</td>
<td>–</td>
</tr>
<tr>
<td>Type Ib</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>1.0 % (1/101)</td>
<td>–</td>
</tr>
<tr>
<td>Type II</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>13.9 % (14/101)</td>
<td>–</td>
</tr>
<tr>
<td>Type IIIa</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>0 %</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Type IIIb</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>0 %</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Indeterminate</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>1.0 % (1/101)</td>
<td>–</td>
</tr>
</tbody>
</table>

### Endoleak, any time since treatment

<table>
<thead>
<tr>
<th>Condition</th>
<th>None</th>
<th>66.7 % (2/3)</th>
<th>–</th>
<th>83.2 % (84/101)</th>
<th>–</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type Ia</td>
<td>0 %</td>
<td>33.3 % (1/3)</td>
<td>–</td>
<td>1.0 % (1/101)</td>
<td>–</td>
</tr>
<tr>
<td>Type Ib</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>1.0 % (1/101)</td>
<td>–</td>
</tr>
<tr>
<td>Type II</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>13.9 % (14/101)</td>
<td>–</td>
</tr>
<tr>
<td>Type IIIa</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>0 %</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Type IIIb</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>0 %</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Indeterminate</td>
<td>0 %</td>
<td>0 %</td>
<td>0.083</td>
<td>1.0 % (1/101)</td>
<td>–</td>
</tr>
</tbody>
</table>
### Re-intervention

<table>
<thead>
<tr>
<th>Re-intervention required</th>
<th>0%</th>
<th>2.8% (2/71)</th>
<th>–</th>
<th>1.3% (15/1163)</th>
<th>–</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom from Re-intervention (1yr K/M)</td>
<td>–</td>
<td>–</td>
<td>1</td>
<td>86.1% ± 4.8%</td>
<td>0.263</td>
</tr>
<tr>
<td><strong>Indication</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sac growth</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>7.1% (1/14)</td>
<td>–</td>
</tr>
<tr>
<td>Endoleak</td>
<td>0%</td>
<td>100.0% (2/2)</td>
<td>0.157</td>
<td>28.6% (4/14)</td>
<td>–</td>
</tr>
<tr>
<td>Migration</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>0%</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Occlusion</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>42.9% (6/14)</td>
<td>–</td>
</tr>
<tr>
<td>Stenosis</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>0%</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Rupture</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>0%</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Graft infection</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>7.1% (1/14)</td>
<td>–</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>21.4% (3/14)</td>
<td>–</td>
</tr>
<tr>
<td><strong>Re-intervention Type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New graft/stent</td>
<td>0%</td>
<td>50.0% (1/2)</td>
<td>–</td>
<td>62.5% (5/8)</td>
<td>–</td>
</tr>
<tr>
<td>Balloon existing device</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>12.5% (1/8)</td>
<td>–</td>
</tr>
<tr>
<td>Embolization</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>25.0% (2/8)</td>
<td>–</td>
</tr>
<tr>
<td>Anchors</td>
<td>0%</td>
<td>50.0% (1/2)</td>
<td>–</td>
<td>12.5% (1/8)</td>
<td>–</td>
</tr>
<tr>
<td>Bypass</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>0%</td>
<td>0.005</td>
</tr>
<tr>
<td>Abdominal surgery</td>
<td>0%</td>
<td>0%</td>
<td>0.157</td>
<td>0%</td>
<td>0.005</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>50.0% (1/2)</td>
<td>–</td>
<td>12.5% (1/8)</td>
<td>–</td>
</tr>
</tbody>
</table>
Structured Notes: use the structured note as a standard for all providers, hospitals, EMR's, societies, registries to be used as a template

- Collaborative Workgroup: SVS, STS, SNIS, ACS, Vascunet, SVS document oversight committee, SVS clinical practice council SVS, EPIC, Cerner, Medstreaming/M2S - technology partner

- Pilot Project: brief operative note for carotid endarterectomy
Patient reported outcomes for PAD increasingly recognized as a valuable measure of our patient care

VQI developing a plan to provide patient reported data to members

VQI and SVS committees have recommended Vascu-Qol 6 (VQ6) and EQ5D

Exploring options for PAD PRO implementation
  Least burdensome
  Ideally direct from patient
  Multi-modal collection (mobile, PC)
Research Advisory Council
Emily Spangler, MD
CHANGE IN RAC POLICIES!

- Policy on RAC Requests Related to Industry Studies
- Policy on Product Identification for approved RAC Requests
- Conflict of Interest Policies Revised based on these new Policies
- All posted on the VQI Web Site
## National Research Process

### Proposal Submissions

**June 2020**
- **Call for Proposals:** April 14, 2020
- **Due Date:** May 18, 2020
- **Meeting:** June 8, 2020
- **Notification Sent:** June 12, 2020

**August 2020**
- **Call for Proposals:** June 9, 2020
- **Due Date:** July 20, 2020
- **Meeting:** August 10, 2020
- **Notification Sent:** August 14, 2020
No Restriction of data release based on similar projects; collaboration is encouraged

Only 1 refresh of data within 24 months of initial approval

Industry related projects need to collaborate with the steering committee/s (i.e. TCAR)
  – Review policy and industry charters on the web

Product Identification Policy: review on the web before submitting proposal
Check Approved Project List

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

To submit a proposal to be considered for the National RAC, please follow the link below:
http://abstracts123.com/svs1/meetinglogin
Venous Quality Council
Olamide Alabi, MD
Council Transition

- Dr. Marc Passman new Chair for 2020

Continued Interest from United Healthcare on collaborating on Appropriateness for Ablations. Could eliminate the need for pre-authorizations.
FORMATION OF THE VENOUS RAC:

- Nicholas Osborne, MD – Chair

- Regional Members: (only regions where there is venous participation)
  - Pacific Northwest: Mark H Meissner, MD
  - Michigan: Judith C Lin, MD, MBA
  - SoCal: NavYash Gupta, MD
  - New York: Mikel Sadek, MD
  - Great Lakes: Fedor Lurie, MD, PhD, RPVI, RVT
  - VSGNE: Anahita Dua, MD
  - Southeastern: Jaime Benaroch-Gampel, MD, MS
  - Virginia’s: David J. Dexter, II, MD

- AVF Appointed members:
  - Jose A Diaz, MD
  - Faisal Aziz, MD

- Two at large appointments
  - Marc Passman, MD
  - Jose Almeida, MD
The IVC Filter Retrieval Report is a tool to identify IVC Filter procedures which require filter removal.

If an IVC Filter procedure recorded the use of a temporary filter, the procedure will be listed on the report as requiring filter retrieval.

If a follow-up form has been created recording either that the filter has been retrieved, attempt at retrieval or the decision was made not to retrieve it, then the procedure will be excluded from the report.
AUTOMATED EMAIL NOTIFICATION SYSTEM: Are you using this?

- Launched by VQI August 2017
- Sites can set up reminders to be automatically sent for all temporary filters
- 30, 60, 90 day reminders
- Ability to send to anyone
  - Physician
  - Office Staff
Venous Quality Council:

- Venous Stent Registry Launched October 2019
- Contact VQI@M2S.com to join the registry!
Stakeholders:
- Society for Vascular Surgery (SVS) Vascular Quality Initiative (VQI)
- American Venous Forum (AVF)
- American Vein & Lymphatic Society (AVLS) Patient Reported Outcome (PRO)
- MDEpiNet
- FDA
- Venous Industry Partners

Objectives:
- Combine resources, talent and information of VQI and AVLS PRO registries to promote better understanding of optimal treatment of superficial venous disease by harmonizing data elements for interoperability
Governing Council
Charles Ross, MD
Approved New RAC Policies

- DUA updated: data can only be shared with individuals directly accountable to the Primary Investigator
- Non-VQI members cannot have access to VQI BDS
- Expedited RAC review process
  - Score >= 2.7 w/o special requests automatically approved
  - Score <=1.7 automatically rejected or requests for modifications
Regional RAC Policies:

- SVS PSO staff will review to ensure all regional studies have at least 3 centers with greater than 10 procedures

- Regions cannot apply for product identification; only considered at National RAC
ASSOCIATE MEDICAL DIRECTORS:

- Technical Associate Medical Director
  - Leila Mureebe, MD
- Quality Improvement Associate Medical Director
  - Gary Lemmon, MD
- Report to current SVS PSO Medical Director
  - Jens Jorgensen, MD
- 2 year term, as of April 2020 – can be renewed for 1 additional year
Technology Released in Q4 2019

- Hemodialysis Access Registry Major Revision – Released on 10/17/2019
Technology Released in Q4 2019

- New Venous Stent registry
  - Released on **10/24/2019**
Technology Released in Q4 2019

- 30-day Follow-up form for Hemodialysis Access and Venous Stent Registry
  - Released on **11/20/2019**
- EVAR Registry Revision II
  - Released on **12/12/2019**
  - Added fields that collect closure device details for right/left access:
    - Largest Sheath Size (Fr) Right/Left
    - Number of Closure Devices Right/Left
    - Closure Device Type Right/Left
    - Specify Other Closure Device Type Right/Left
  - Changed post-op complications fields to be access side specific:
    - Access Site Hematoma/Pseudoaneurysm Right/Left
    - Access Site Occlusion Right/Left
    - Access Site Infection Right/Left
Technology Released in Q4 2019

- INFRA Registry Revision II
  - Released on **12/12/2019**
  - Added fields related to groin incision to capture more granular information about the incision
    - Closure
    - Dressing
    - Negative Pressure Device
    - Specify Other (Negative Pressure Device)
• SUPRA Registry Revision II
  – Released on **12/12/2019**
  – Added fields related to groin incision to capture more granular information about the incision
    • Incision Side
    • Groin Incision Right/Left
    • Closure Right/Left
    • Dressing Right/Left
    • Negative Pressure Device Right/Left
    • Specify Other (Negative Pressure Device) Right/Left
Technology Released in Q1 2020

• Drilldown Feature for Follow-up Completion Rate report
  – Released on 1/15/2020

Click link to enter Drilldown View
Technology Released in Q1 2020

- Drilldown Feature for Follow-up Completion Rate report

**Interpretation of Numerator and Denominator**

- **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).

**Expected Window for Follow-up Completion**

- The table below shows the expected window for follow-up completion for each record:

<table>
<thead>
<tr>
<th>Follow-up</th>
<th>PRIMPROCID</th>
<th>Last Name</th>
<th>MRN</th>
<th>Physician</th>
<th>Procedure/treatment Date</th>
<th>Days Since Procedure/treatment</th>
<th>Follow-up Window Start</th>
<th>Follow-up Window Close</th>
<th>LTF Numerator</th>
<th>LTF Denominator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow-up</td>
<td>579111</td>
<td>Wareham</td>
<td>123456</td>
<td>Doc, Name</td>
<td>04/03/2018</td>
<td>674</td>
<td>01/01/2019</td>
<td>01/03/2020</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>637738</td>
<td>Wilson</td>
<td>12345</td>
<td>Doc, Name</td>
<td>09/18/2018</td>
<td>506</td>
<td>06/18/2019</td>
<td>06/19/2020</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>640272</td>
<td>Brian</td>
<td>123AB123</td>
<td>Krovvidi, Skrovvidi</td>
<td>02/01/2018</td>
<td>735</td>
<td>11/01/2018</td>
<td>11/03/2019</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>640273</td>
<td>Brian</td>
<td>ABC388</td>
<td>Krovvidi, Skrovvidi</td>
<td>02/01/2018</td>
<td>735</td>
<td>11/01/2018</td>
<td>11/03/2019</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>633758</td>
<td>Fraser</td>
<td>874325</td>
<td>B_Phys, Heidi</td>
<td>09/03/2018</td>
<td>521</td>
<td>09/03/2019</td>
<td>09/04/2020</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>635905</td>
<td>Fraser</td>
<td>123435456</td>
<td>B_Phys, Heidi</td>
<td>09/01/2018</td>
<td>523</td>
<td>06/01/2019</td>
<td>06/02/2020</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>635906</td>
<td>Fraser</td>
<td>90990900</td>
<td>B_Phys, Heidi</td>
<td>09/01/2018</td>
<td>523</td>
<td>06/01/2019</td>
<td>06/02/2020</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>635927</td>
<td>Fraser</td>
<td>12345</td>
<td>B_Phys, Heidi</td>
<td>09/02/2018</td>
<td>522</td>
<td>06/01/2019</td>
<td>06/02/2020</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>638670</td>
<td>Fraser</td>
<td>593890285902</td>
<td>B_Phys, Heidi</td>
<td>09/02/2018</td>
<td>522</td>
<td>06/01/2019</td>
<td>06/02/2020</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>638259</td>
<td>Brian</td>
<td>123AB123</td>
<td>Neal, Dan</td>
<td>05/15/2018</td>
<td>632</td>
<td>02/12/2019</td>
<td>02/14/2020</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>611068</td>
<td>Jorgensen</td>
<td>123456</td>
<td>Doc, Name</td>
<td>07/02/2018</td>
<td>584</td>
<td>04/01/2019</td>
<td>04/02/2020</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up</td>
<td>674891</td>
<td>Fraser</td>
<td>1234564</td>
<td>B_Phys, Heidi</td>
<td>01/02/2018</td>
<td>765</td>
<td>10/02/2018</td>
<td>10/04/2019</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

Report filtered for physician users to include only those records where they are selected as the primary physician for the procedure/treatment record.
Technology Released in Q1 2020

- New Vascular Medicine Consult registry
  - Released on **2/5/2020**
Technology Released in Q1 2020

- Varicose Vein Registry Revision
  - Released on 2/5/2020
New Barcode Scanning Feature for PVI Registry

- Released on 2/26/2020
- This release introduces new functionality intended to enhance Peripheral Vascular Intervention (PVI) device capture.
Projects in Progress

- Hemodialysis Access minor revision (changes since Q4 2019 release)
- Multi-registry revision
  - Hypertension Harmonization
  - Antibiotics Harmonization
  - Add "Other" free text field to device fields
- TEVAR Registry Revision to collect closure device details and change post-op complications fields to be access side specific
- Add PVI Procedure Context variables to Follow-up data download file
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 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

Re-Opening in 2019

- Project will include newly approved Cook device
- TEVAR centers will be invited to participate

For more information, please contact: tevarproject@m2s.com or Anita Duxbury at 603-239-3245
• 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

- 72 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 (nearly complete)
  - 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.
For More Information Contact:

The Bard® LifeStent® Popliteal Artery Stent Project
Charlotte Stirewalt
BardLifeStent@m2s.com
PATHWAYS Support
2019 Claims Validation
• The support team anticipates notifying sites selected to participate in the 2019 claims validation process in Q2

Quarterly Help Text Updates
• In collaboration with the SVS PSO, the Support Team is releasing Quarterly Help Text updates. We are providing your feedback to the PSO for consideration, which drives new improved Help Text

Webinars – (Recent & Upcoming)
Recent
• BASIC ANALYTICS - Sept 2019
• ADVANCED ANALYTICS - Oct 2019
• LTFU Completion Drilldown Webinar – Feb 2020
• Webinars are recorded and posted to the Resources in PATHWAYS along with the associated Q&A

Summer 2020
• New series of Reporting Webinars
• New Support Features
Customer Experience

- Support Team is utilizing our Customer Support System to track our communication and analyze support metrics
- Range of inquiries per month is 450-650

Support Tips

- Please update your Center details on the Center Characteristics Page
- Now posting an “Abstractor Tip of the Month” using PATHWAYS notifications
Closing Remarks:
SEVSG Future Directions & Action Items
Charles Ross, MD
PLEASE SIGN INTO RING CENTRAL MEETING with your FULL NAME to get CREDIT for ATTENDANCE!
(no exceptions will be made)