Northern California Vascular Study Group (NCVSG)

October 24, 2020
8:00 am-11:00 am PT

11:00 am-12:00 pm PT-Data Managers’ Meeting
Remote
Participation Award Credit

PLEASE SIGN IN!!!

Click “Participants” in the box at the top or bottom of your screen. If your full name is not listed, hover next to your name and you’ll see “rename”.
Click and sign in. If you can’t sign in, please email Leka Johnson at ljohson@svspso.org and let her know the identifier you were signed in under (ex –LM7832 or your phone number).

**SPECIAL NOTE: We do give credit to residents/fellows that don’t have a pathways user account !!!
Sign in with your Full name, MD, Name of Institution
<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>CE Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00am</td>
<td>Welcome</td>
<td>No</td>
</tr>
<tr>
<td>8:10am</td>
<td>Regional Data Review</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Matthew Mell, MD, Regional Medical Director, NCVSG</td>
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<tr>
<td></td>
<td>Learning Objectives:</td>
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<tr>
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<td>• Use the VQI regional reports to establish quality improvement goals for the vascular patients (outcomes) and for their center (process).</td>
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<td></td>
<td>• Interpret and compare each centers’ VQI results to regional and national benchmarked data.</td>
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<td>• Learn, through group discussion the VQI regional results to improve the quality of vascular health care by monitoring measurable performance indicators, SVS PSO evidence-based research, and outcomes.</td>
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<td>• Identify high performing regional vascular centers to discuss variations in care and clinical practice patterns to improve outcomes and prompt quality improvement recommendations for vascular care patients. Sharing of best practices/pathways of care.</td>
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<tr>
<td>8:50am</td>
<td>Regional QI Proposal</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Matthew Mell, MD, Regional Medical Director, NCVSG</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
## Agenda (con’t)

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>CE Credit</th>
</tr>
</thead>
</table>
| 9:30am   | National VQI Update  
Cheryl Jackson, DNP, MS, RN, CNOR, CPHQ, Quality Director, PSO  
Learning Objectives:  
• Use the VQI regional reports to establish quality improvement goals for the vascular patients (outcomes)  
  and for their center (process).  
• Identify high performing regional vascular centers to discuss variations in care and clinical practice patterns  
  to improve outcomes and prompt quality improvement recommendations for vascular care patients.  
  Sharing of best practices/pathways of care. | Yes       |
| 10:10am  | AQC Update – Misty Humphries, MD                                      | No        |
|          | VQC Update – Nasim Hedayati, MD                                        | No        |
|          | RAC Update – Shipra Arya, MD                                            | No        |
|          | Governing Council Update – Matthew Mell, MD                             | No        |
| 10:20am  | Case Presentations  
1. Heather Houston, MSN, RN – UC Davis  
2. Ritu Karki Situala, MSN, RN – UC Davis  
3. Carlos Moreno presenting for Joyce Nacario, RN – UCSF  
4. Carlos Moreno/Rouchelyn Fallorina, RN | No        |
|          | Open Discussion/Next Meeting/Meeting Evaluation                         | No        |
Disclosures

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

Emanuel Medical Center
Marin General Hospital
Palo Alto Medical Foundation
Sequoia Hospital
St. Joseph's Medical Center of Stockton
Stanford Hospital & Clinics
UC Davis Health System
UCSF Medical Center
Washington Hospital Health System
Fresno Community Hospital and Medical Center
VQI Regional Quality Report

Fall 2020

Important Notes

- All results are based on data entered into the VQI as of June 30th, 2020. Any subsequent changes or updates to data after that date will not be reflected in this report.
- For a given module, regions must have at least 3 centers with at least 10 cases per center meeting inclusion criteria in order for regional data (both aggregate and by center) to be displayed.
- For a given module, cases with missing data elements used in the construction of inclusion/exclusion criteria or outcomes are excluded.
- Please reference the “VQI Case Appendix” in the table of contents on the left to identify your center’s included or excluded cases for each module.
- In all graphics, "**" indicates a p-value <.05.

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

The dashboard summarizes your center’s results for each module and provides regional and VQI-wide benchmarks for comparison. The “Your Center” column gives the percentage of your center’s cases with the noted outcome. Numbers in parentheses give the number of cases with the outcome and the total number of cases meeting the inclusion criteria for that module. The “Your Region” and “VQI Overall” columns give the aggregate percentage of cases with the noted outcome, as well as the 25th, 50th (median), and 75th percentiles, for centers in your region and VQI, respectively. Percentiles are ordered so that a higher percentile indicates better performance. Your center’s results are highlighted green if your center is at or above the 75th percentile across VQI, yellow if among the middle 50% of centers in VQI, and red if at or below the 25th percentile across VQI. For details on a particular module, click on the module report name in the table of contents on the left.
| Procedure Group | Outcome                          | Your Center % (n/N) | Your Region % [25p|50p|75p] | VQI Overall % [25p|50p|75p] |
|-----------------|---------------------------------|---------------------|-----------------------------|-----------------------------|
|                 |                                 |                     |                             |                             |
| All             | Procedure Volume                | [45 | 174 | 234]             | [20 | 88 | 229]                  |
|                 | Procedure Volume, All Years     | [567 | 910 | 1914]            | [50 | 339 | 1334]                |
| Multiple        | Long-Term Follow-up             | 72.2% [67% | 68% | 77%]      | 68.3% [45% | 71% | 87%]                     |
|                 | Discharge Medications           | 85.3% [78% | 83% | 94%]      | 84.8% [79% | 88% | 96%]                     |
| TFEM CAS ASYMP  | Stroke/Death                    | NA (<3 centers)     | 1.2% [0% | 0% | 0%]  |
| TFEM CAS SYMP   | Stroke/Death                    | NA (<3 centers)     | 3.6% [0% | 0% | 0%]  |
| TCAR ASYMP      | Stroke/Death                    | NA (<3 centers)     | 1% [0% | 0% | 0%]  |
| TCAR SYMP       | Stroke/Death                    | NA (<3 centers)     | 3% [0% | 0% | 0%]  |
| CEA ASYMP       | Stroke/Death                    | 1.1% [0% | 0% | 0%]  | 0.9% [0% | 0% | 0%]  |
|                 | Postop LOS>1 Day                | 27% [44% | 29% | 23%]    | 23.3% [33% | 21% | 12%]               |
| CEA SYMP        | Stroke/Death                    | NA (<3 centers)     | 1.7% [0% | 0% | 0%]  |
|                 | Postop LOS>1 Day                | NA (<3 centers)     | 43% [59% | 40% | 27%]   |
| EVAR            | Postop LOS>2 Days               | 23.1% [21% | 18% | 11%]    | 14.2% [20% | 13% | 5%]               |
|                 | Sac Diameter Reporting          | 60.3% [57% | 62% | 62%]    | 58.6% [38% | 64% | 79%]               |
| SVS Sac Size Guideline |                         | NA (<3 centers)     | 73.4% [62% | 75% | 87%]                  |
| TEVAR           | Sac Diameter Reporting          | NA (<3 centers)     | 56.7% [22% | 55% | 73%]                  |
| OAAA            | In-Hospital Mortality           | NA (<3 centers)     | 4.2% [1% | 0% | 0%]                  |
| SVS Cell-Saver Guideline |                         | NA (<3 centers)     | 93.3% [95% | 100% | 100%]               |
| SVS Iliac Inflow Guideline |                     | NA (<3 centers)     | 98.6% [100% | 100% | 100%]               |
| PVI             | ABI/Toe Pressure                | 79.9% [87% | 94% | 99%]    | 74.6% [60% | 84% | 94%]               |
| INFRA           | Major Complications             | 2.5% [4% | 0% | 0%]  | 4.1% [6% | 0% | 0%]                  |
| SUPRA           | Major Complications             | NA (<3 centers)     | 5.2% [0% | 0% | 0%]                  |
| LEAMP           | Postop Complications            | NA (<3 centers)     | 12% [16% | 10% | 5%]                  |
| AVACCESS        | Primary AVF vs. Graft           | NA (<3 centers)     | 82.1% [72% | 85% | 92%]                  |
| IVCF            | Filter Retrieval Reporting      | NA (<3 centers)     | 22.8% [0% | 1% | 33%]                  |
## Procedure Volume, All Years

Includes all procedures with procedure date through May 31, 2020

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

<table>
<thead>
<tr>
<th>Procedure Code</th>
<th>Your Center (N)</th>
<th>Your Region (N)</th>
<th>VQI Overall (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVACCESS</td>
<td></td>
<td>NA (&lt;3 centers)</td>
<td>54564</td>
</tr>
<tr>
<td>CAS (TFEM CAS &amp; TCAR)</td>
<td></td>
<td>296</td>
<td>41682</td>
</tr>
<tr>
<td>CEA</td>
<td></td>
<td>1165</td>
<td>139597</td>
</tr>
<tr>
<td>EVAR</td>
<td></td>
<td>725</td>
<td>55124</td>
</tr>
<tr>
<td>INFRA</td>
<td></td>
<td>728</td>
<td>59556</td>
</tr>
<tr>
<td>IVCF</td>
<td></td>
<td>NA (&lt;3 centers)</td>
<td>14022</td>
</tr>
<tr>
<td>LEAMP</td>
<td></td>
<td>NA (&lt;3 centers)</td>
<td>17738</td>
</tr>
<tr>
<td>OAAA</td>
<td></td>
<td>187</td>
<td>13439</td>
</tr>
<tr>
<td>PVI</td>
<td></td>
<td>3267</td>
<td>225515</td>
</tr>
<tr>
<td>SUPRA</td>
<td></td>
<td>229</td>
<td>19457</td>
</tr>
<tr>
<td>TEVAR</td>
<td></td>
<td>637</td>
<td>17236</td>
</tr>
<tr>
<td>Varicose Veins</td>
<td></td>
<td>NA (&lt;3 centers)</td>
<td>38407</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>9994</td>
<td>696337</td>
</tr>
</tbody>
</table>
"Others" indicates centers that do not belong to a regional group.
Physician Specialties

Physician Specialties Across VQI (as of June 30, 2020, N=5156 Physicians)
Physician Specialties Across Your Region (as of June 30, 2020, N=68 Physicians)
Long-Term Follow-up

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

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

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

<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>NA (&lt;3 centers)</td>
<td>7949 (59%)</td>
<td></td>
</tr>
<tr>
<td>CAS</td>
<td>NA (&lt;3 centers)</td>
<td>6442 (65%)</td>
<td></td>
</tr>
<tr>
<td>CEA</td>
<td>173 (68%)</td>
<td>18395 (70%)</td>
<td></td>
</tr>
<tr>
<td>EVAR</td>
<td>81 (70%)</td>
<td>7337 (70%)</td>
<td></td>
</tr>
<tr>
<td>INFRA</td>
<td>81 (75%)</td>
<td>7463 (70%)</td>
<td></td>
</tr>
<tr>
<td>IVCF</td>
<td>NA (&lt;3 centers)</td>
<td>2153 (71%)</td>
<td></td>
</tr>
<tr>
<td>LEAMP</td>
<td>NA (&lt;3 centers)</td>
<td>3143 (63%)</td>
<td></td>
</tr>
<tr>
<td>OAAA</td>
<td>NA (&lt;3 centers)</td>
<td>1200 (72%)</td>
<td></td>
</tr>
<tr>
<td>PVI</td>
<td>426 (77%)</td>
<td>32437 (70%)</td>
<td></td>
</tr>
<tr>
<td>SUPRA</td>
<td>NA (&lt;3 centers)</td>
<td>2368 (67%)</td>
<td></td>
</tr>
<tr>
<td>TEVAR</td>
<td>89 (70%)</td>
<td>2502 (66%)</td>
<td></td>
</tr>
<tr>
<td>Overall (July 2017-June 2018)</td>
<td>983 (72%)</td>
<td>91389 (68%)</td>
<td></td>
</tr>
<tr>
<td>Overall (July 2016-June 2017)</td>
<td>1204 (69%)</td>
<td>80731 (73%)</td>
<td></td>
</tr>
</tbody>
</table>
Long-Term Follow-Up by Center in Your Region (July 2017-June 2018)
Long-Term Follow-Up by Center in Your Region (July 2017–June 2018)

- 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 (July 2017–June 2018)

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

*** Indicates region’s rate differs significantly from the VQI rate.
Discharge Medications

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

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

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

<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>
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<tr>
<td>PVI</td>
<td></td>
<td></td>
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<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>1017</td>
<td>85%</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>VQI Overall</td>
<td>80578</td>
<td>85%</td>
<td>9%</td>
<td>4%</td>
</tr>
</tbody>
</table>
**Discharge Antiplatelet+Statin by Center in Your Region (June 2019-May 2020)**

- Other centers in your region
- Your center

Centers (centers with <10 cases not shown)

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

**Discharge Antiplatelet+Statin by Region Across VQI (June 2019-May 2020)**

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.
CEA ASYMP: Stroke/Death

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

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

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

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of CEA procedures meeting inclusion criteria</td>
<td>89</td>
<td>9499</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among procedures meeting inclusion criteria</td>
<td>1.1%</td>
<td>0.9%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>84</td>
<td>9126</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among cases with complete data</td>
<td>1.2%</td>
<td>0.9%</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>0.51</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.
Stroke or Death After CEA for Asymptomatic Admissions by Year

Rates shown are observed rates among cases meeting inclusion criteria.
Stroke or Death After CEA for Asymptomatic Admissions in Your Region (June 2019-May 2020)

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

Centers (centers with <10 complete cases not shown)

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

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

- Observed
- Expected

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

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. "***" indicates region's observed rate differs significantly from its expected rate.
CEA ASYMP: Postop LOS>1 Day

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

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

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

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of CEA procedures meeting inclusion criteria</td>
<td>89</td>
<td>9498</td>
<td></td>
</tr>
<tr>
<td>Observed rate of LOS&gt;1 day among procedures meeting inclusion criteria</td>
<td>27%</td>
<td>23.3%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>84</td>
<td>9139</td>
<td></td>
</tr>
<tr>
<td>Observed rate of LOS&gt;1 day among cases with complete data</td>
<td>27.4%</td>
<td>23.1%</td>
<td></td>
</tr>
<tr>
<td>Expected rate of LOS&gt;1 day among cases with complete data*</td>
<td>24.1%</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.52</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.
Postop LOS>1 Day after CEA for Asymptomatic Admissions by Year

Rates shown are observed rates among cases meeting inclusion criteria.
Postop LOS>1 Day after CEA for Asymptomatic Admissions in Your Region (June 2019-May 2020)

Other centers in your region  Your center

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

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

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

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

*** Indicates region's observed rate differs significantly from its expected rate.
EVAR: Postop LOS>2 Days

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

Includes Endovascular AAA Repair (EVAR) procedures only. Excludes any procedure with ruptured aneurysm, patients with prior aortic surgery, or patients transferred from another hospital. Procedures where in-hospital death occurred with postoperative LOS≤2 are also excluded. Postoperative LOS is based on the midnight rule used for hospital billing.

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

<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>52</td>
<td>6664</td>
<td></td>
</tr>
<tr>
<td>Observed rate of LOS&gt;2 days among procedures meeting inclusion criteria</td>
<td>23.1%</td>
<td>14.2%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>52</td>
<td>5150</td>
<td></td>
</tr>
<tr>
<td>Observed rate of LOS&gt;2 days among cases with complete data</td>
<td>23.1%</td>
<td>14.1%</td>
<td></td>
</tr>
<tr>
<td>Expected rate of LOS&gt;2 days among cases with complete data*</td>
<td>19.1%</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.48</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.
Postop LOS >2 Days after EVAR by Year

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

Observed and expected rates shown are among cases with complete data. Regional data suppression is based on number of complete cases. "***" indicates region's observed rate differs significantly from its expected rate.
### EVAR: Sac Diameter Reporting

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

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

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

<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></td>
<td>73</td>
<td>6821</td>
</tr>
<tr>
<td>Percentage with sac diameter reported between 9 and 21 months post-procedure</td>
<td>60.3%</td>
<td>58.6%</td>
<td></td>
</tr>
</tbody>
</table>
EVAR Sac Diameter Reporting in Your Region (July 2017–June 2018)

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.

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

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

*** Indicates region’s rate differs significantly from the VQI rate.
PVI: ABI/Toe Pressure

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

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

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

<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 meeting inclusion criteria</td>
<td>134</td>
<td>13412</td>
<td></td>
</tr>
<tr>
<td>Percentage with ABI/toe pressure assessment</td>
<td><strong>79.9%</strong></td>
<td><strong>74.6%</strong></td>
<td></td>
</tr>
<tr>
<td>Percentage who were current smokers</td>
<td>15.7%</td>
<td>36.5%</td>
<td></td>
</tr>
</tbody>
</table>
ABI/Toe Pressure Assessment Before PVI by Year

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

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

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

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

*** indicates region’s rate differs significantly from the VQI rate.
INFRA: Major Complications

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

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

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

<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>79</td>
<td>4119</td>
</tr>
<tr>
<td>Percentage with major complications</td>
<td></td>
<td>2.5%</td>
<td>4.1%</td>
</tr>
</tbody>
</table>
Major Complications After INFRA in Your Region (June 2019-May 2020)

Centers (centers with <10 cases not shown)

*** Indicates center’s observed rate differs significantly from its expected rate

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

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

*** Indicates region’s rate differs significantly from the VQI rate.
Regional Improvement Projects

• Matthew Mell, MD
National VQI Update:
Cheryl Jackson, SVS PSO
Number of Participating Centers

Location of VQI Participating Centers

715 VQI Centers
714 centers in North America
1 center in Singapore
18 Regional Quality Groups

- Canadian Vascular Quality Initiative
- Upper Midwest Vascular Network
- Pacific NW Vascular Study Group
- Northern California Vascular Study Group
- Southern California Vascular Outcomes Improvement Collaborative
- Rocky Mountain Vascular Quality Initiative
- Southern Vascular Outcomes Network
- Mid-America Vascular Study Group
- Southeastern Vascular Study Group
- MidSouth Vascular Study Group
- Carolinas Vascular Quality Group
- Midwest Vascular Collaborative
- Virginias Vascular Study Group
- Great Lakes Vascular Study Group
- Mid-Atlantic Vascular Study Group
- Vascular Study Group of New England
- Vascular Study Group of Greater New York
- Michigan Vascular Study Group
Total Procedure Volume tab reflects net procedures added to the registry for the month

<table>
<thead>
<tr>
<th>Total Procedures Captured</th>
<th>750,153</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peripheral Vascular Intervention</td>
<td>246,062</td>
</tr>
<tr>
<td>Carotid Endarterectomy</td>
<td>146,129</td>
</tr>
<tr>
<td>Infra-Inguinal Bypass</td>
<td>63,699</td>
</tr>
<tr>
<td>Endovascular AAA Repair</td>
<td>59,130</td>
</tr>
<tr>
<td>Hemodialysis Access</td>
<td>59,036</td>
</tr>
<tr>
<td>Carotid Artery Stent</td>
<td>46,737</td>
</tr>
<tr>
<td>Varicose Vein</td>
<td>41,129</td>
</tr>
<tr>
<td>Supra-Inguinal Bypass</td>
<td>20,783</td>
</tr>
<tr>
<td>Thoracic and Complex EVAR</td>
<td>19,260</td>
</tr>
<tr>
<td>Lower Extremity Amputations</td>
<td>19,217</td>
</tr>
<tr>
<td>IVC Filter</td>
<td>14,812</td>
</tr>
<tr>
<td>Open AAA Repair</td>
<td>14,147</td>
</tr>
<tr>
<td>Venous Stent</td>
<td>12</td>
</tr>
<tr>
<td>Vascular Medicine Consult</td>
<td>0</td>
</tr>
</tbody>
</table>

**VQI Total Procedure Volume**

Total Procedure Volume tab reflects net procedures added to the registry for the month.
VQI OnLine Highlights:

• VQI OnLine hosted 12 sessions over 6 weeks
• Attendance ranged from 300 – 125 live users
• PSO thanks all the Speakers and Moderators
• Feedback has largely been positive
  – Need a better registration and invite process
• Will incorporate virtual sessions even as we return to a live event
• Replays can be found on the VQI Members Only website.
After the successful completion of our first VQI ONLINE event series, we have posted the video content on the Members Only area.

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

VQI Members Only – [https://www.vqi.org/members-login/](https://www.vqi.org/members-login/)

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

Contact Nancy Heatley [Nheatley@svspso.org](mailto:Nheatley@svspso.org) if you need assistance!
ACC, SVS Join Forces on Single Vascular Registry

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

https://www.vqi.org/acc-svs-join-forces-on-single-vascular-registry/
Vascular Medicine Consult Registry

Collaboration:

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

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

• **Opportunities**
  – Identify patterns/variation of treatment and pre-intervention management
  – Identify QI initiatives
  – Opportunities in comparative effectiveness research
Vascular Medicine Consult Registry

• First site signed and entering data! Many more in the contracting phase!

• Webpage link: https://www.vqi.org/directory/new-vascular-medicine-consult-registry/

• Recorded webinars: https://www.vqi.org/vascular-medicine-consult-registry-webinar-recordings-available/

• For more information please contact:
  – VQI@M2S.com
### COVID-19 Variables:

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Description</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure</td>
<td>COVID status at time of procedure</td>
<td>0=Unknown, not tested; 1=Tested negative pre-op; 2=Tested positive pre-op; 3=Tested negative pre-op but positive post-op</td>
</tr>
<tr>
<td>Procedure</td>
<td>COVID symptoms pre-procedure</td>
<td>1=Asymptomatic, 2=Symptomatic, not intubated, 3=Symptomatic, intubated</td>
</tr>
<tr>
<td>Procedure</td>
<td>Treatment delay by pandemic</td>
<td>0=None, 1=Delayed &lt; 2 weeks, 2=Delayed 2-6 weeks, 3=Delayed &gt; 6 weeks, 4=Uncertain</td>
</tr>
<tr>
<td>Procedure</td>
<td>Impact of delay in treatment</td>
<td>0=No, impact in tx due to delay, 1=Yes, impact of tx due to delay 2=Indeterminate</td>
</tr>
<tr>
<td>30 day and LTFU</td>
<td>COVID Test Status after D/C</td>
<td>0= Never tested, no symptoms, 1= Never tested, but had symptoms, 2= Interval test positive with no current symptoms, 3= Interval test positive with active symptoms, 4= Interval test negative with no current symptoms, 5= Interval test negative with active symptoms,</td>
</tr>
</tbody>
</table>
COVID-19 Variable Roll out:

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

Other COVID-19 Info
We are aware that COVID-19 has put a significant strain on staff and resources. The SVS PSO VQI will do our best to assure that any temporary workflow disruption will not have a negative impact on SVS VQI work or subsequent participation awards.
My Peripheral Arterial Disease: a VQI Pilot of Patient Reported Outcomes for PAD

• The Society for Vascular Surgery Vascular Quality Initiative is seeking practices to participate in My PAD, a pilot program for the collection of patient reported outcomes (PRO) on patients undergoing endovascular treatment for peripheral arterial disease (PAD).

• The VQI recognizes that traditional outcomes such as patency and reintervention may not fully capture the quality of care or the experience of PAD patients. There is a long overdue need to learn and measure the patient’s perspective.

• Must be in the PVI registry and have greater than 80% follow up!
**Highlights**

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

• Changes to Perioperative Dashboards
• New On-line LTFU reports
• Suggestions for “other reports”? 
Perioperative Dashboard Remodel
Overall Modifications

Change explanation language- confusing

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

Reorder sequence

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

Eliminate null entry of registry data

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

Develop common metric for complications

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

Provide One year and 3 year comparators

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

Include Category under each registry of excluded ‘N’s
• Combine into all carotid interventions for total of procedures in center
• Asymptomatic definition changed to 180 days
• Breakout into % CAS vs CEA as well as %TCAR vs TFCAS
• Under each category above: % Age >/= 80 and % CMS High Risk Criteria
• MACE reported separated for Total CAS (TCAR + TFCAS) and CEA
• Contralat/Ipsi CVA reported for each procedure type
• List BTR separately from Cranial Nerve Injury
• % Protamine reversal included in CEA report
• Continue with ‘Case data’; ‘DC meds’; ‘Discharge’; ‘IV meds for BP’ and Dysrhythmia treatment
• **Combined totals** used when statistics do not support separating outcomes and in ‘Home’ disposition
• Homeless and other hospital eliminated from Disposition
Interventions include all carotid procedures meeting entry criteria for CAS and CEA registries with separation of Asymptomatic and Symptomatic presentation.

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

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Outcome/Complication N =130</th>
<th>Asymptomatic N =100 %CAS/CEA</th>
<th>Symptomatic N =30 %CAS/CEA</th>
<th>Region N % CAS/CEA</th>
<th>National N % CAS/CEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Meds</td>
<td>Antiplatelet + Statin</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>MACE</td>
<td>%Mortality</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>%CVA</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>%MI</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>% CHF</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Disposition</td>
<td>Home</td>
<td>Combined total</td>
<td>Combined total</td>
<td>Combined total</td>
<td>Combined total</td>
</tr>
<tr>
<td>Total Carotids</td>
<td>Rehab Unit/Nursing Home</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
</tbody>
</table>
Interventions include all carotid procedures meeting entry criteria for CAS and CEA registries with separation of Asymptomatic and Symptomatic presentation. Asymptomatic patients are those who had no ipsilateral or contralateral TIA or stroke within 180 days prior to surgery.

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

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

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Outcome/Complication</th>
<th>Asymptomatic N = 50</th>
<th>Symptomatic N = 12</th>
<th>Region N</th>
<th>National N</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEA N=62</td>
<td>Numbers of cases reviewed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Median PLOS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTOR</td>
<td>(Bleeding/Thrombosis/Revision)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVA</td>
<td>% Contralateral/Ipsilateral</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Age</td>
<td>Number patients &gt;/= 80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Med use</td>
<td>(IV meds for DysR→Rx or Hyper/Hypotension)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protamine</td>
<td>% with reversal of anticoag</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Risk</td>
<td>(% meeting CMS criteria)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN Injury</td>
<td>(% X/XII injury at discharge)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
New On-Line LTFU Reports
InSights EVAR LTFU Report

- Select sites scheduled to test Mid October 2020
- To be rolled out to all sites soon
- Over time LTFU reports to be created for all registries (CEA/CAS next)
- *A toggle will be provided at the top of the report to show or hide the (n/m ) values
- Ability to drill down to the patient PRIMPROCID
- Ability to filter on Elective, Ruptured, Symptomatic
<table>
<thead>
<tr>
<th>Follow-up</th>
<th>My Center (Patients = xx)</th>
<th>My Region (Patients = xx)</th>
<th>Percentile</th>
<th>All VQI (Patients = xx)</th>
<th>Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Cases = xx)</td>
<td>(Cases = xx)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cases with any follow-up</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td>Cases with LTFU &gt;= 9 months</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td>Cases with LTFU &gt;= 9 months and imaging</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td>Survival</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freedom from Death (1yr K/M)</td>
<td>XX.x% ± X.x%</td>
<td>XX.x% ± X.X%</td>
<td>XX</td>
<td>XX.x% ± X.X%</td>
<td>XX</td>
</tr>
<tr>
<td>Status at most recent follow-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td>Homeless</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
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<tr>
<td>Nursing Home</td>
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<td>XX</td>
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</tr>
<tr>
<td>New nursing home</td>
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<td>XX.x%</td>
<td>XX</td>
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</tr>
<tr>
<td>Functional Status</td>
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<td></td>
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<tr>
<td>Full</td>
<td>XX.x%</td>
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<td>Light Work</td>
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<tr>
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<tr>
<td>Assisted Care</td>
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<td>Bed Bound</td>
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<td>XX</td>
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<tr>
<td>Worse Function</td>
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<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td>Smoking</td>
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<td></td>
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<td>Prior</td>
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<td>XX.x%</td>
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<td>XX.x%</td>
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<td>Never</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td>Quit since procedure</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
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<tr>
<td>Started since procedure</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
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<td>XX</td>
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<td>Renal Function</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>New onset dialysis</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
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<tr>
<td>Creatinine increase &gt; 0.5 mg/dl</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
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<td>Medication</td>
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<td>Antiplatelet</td>
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<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
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<tr>
<td>Statin</td>
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<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td>Anticoagulant</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
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</table>
### Imaging at most recent follow-up

<table>
<thead>
<tr>
<th>Patients having no f/u</th>
<th>XX.x%</th>
<th>XX.x%</th>
<th>XX</th>
<th>XX.x%</th>
<th>XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Among Patients having f/u</td>
<td>None</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td></td>
<td>CT/CTA</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td></td>
<td>Duplex</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td></td>
<td>MR/MRA</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td></td>
<td>Angio</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td></td>
<td>Plain Film</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
<td>XX</td>
</tr>
<tr>
<td>Max AAA Diameter</td>
<td>Shrinkage &gt;= 5 mm</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
</tr>
<tr>
<td></td>
<td>No change &gt;= 5 mm</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
</tr>
<tr>
<td></td>
<td>Expansion &gt;= 5 mm</td>
<td>XX.x%</td>
<td>XX.x%</td>
<td>XX</td>
<td>XX.x%</td>
</tr>
</tbody>
</table>

### Complications

#### Access Site

| None | XX.x% | XX.x% | XX | XX.x% | XX |
| Infection | XX.x% | XX.x% | XX | XX.x% | XX |
| Pseudoaneurysm | XX.x% | XX.x% | XX | XX.x% | XX |
| Stenosis | XX.x% | XX.x% | XX | XX.x% | XX |
| Occlusion | XX.x% | XX.x% | XX | XX.x% | XX |

#### Access Complication Treatment Required

| None | XX.x% | XX.x% | XX | XX.x% | XX |
| Medical | XX.x% | XX.x% | XX | XX.x% | XX |
| Interventional | XX.x% | XX.x% | XX | XX.x% | XX |
| Surgical | XX.x% | XX.x% | XX | XX.x% | XX |

#### Graft Limb Occlusions

| None | XX.x% | XX.x% | XX | XX.x% | XX |
| Unilateral | XX.x% | XX.x% | XX | XX.x% | XX |
| Bilateral | XX.x% | XX.x% | XX | XX.x% | XX |

#### Renal Artery Encroachment

| None | XX.x% | XX.x% | XX | XX.x% | XX |
| Stenosis | XX.x% | XX.x% | XX | XX.x% | XX |
| Occlusion | XX.x% | XX.x% | XX | XX.x% | XX |

#### Endoleak, current

| None | XX.x% | XX.x% | XX | XX.x% | XX |
| Type Ia | XX.x% | XX.x% | XX | XX.x% | XX |
| Type Ib | XX.x% | XX.x% | XX | XX.x% | XX |
| Type II | XX.x% | XX.x% | XX | XX.x% | XX |
| Type IIIa | XX.x% | XX.x% | XX | XX.x% | XX |
| Type IIIb | XX.x% | XX.x% | XX | XX.x% | XX |
| Indeterminate | XX.x% | XX.x% | XX | XX.x% | XX |

#### Endoleak, any time since treatment

| None | XX.x% | XX.x% | XX | XX.x% | XX |
| Type Ia | XX.x% | XX.x% | XX | XX.x% | XX |
| Type Ib | XX.x% | XX.x% | XX | XX.x% | XX |
| Type II | XX.x% | XX.x% | XX | XX.x% | XX |
| Type IIIa | XX.x% | XX.x% | XX | XX.x% | XX |
| Type IIIb | XX.x% | XX.x% | XX | XX.x% | XX |
| Indeterminate | XX.x% | XX.x% | XX | XX.x% | XX |
Report Suggestions/Ideas?
Quorum:

• All voting for nominations and election of officers will be conducted electronically, even during in-person regional meetings. In order to conduct business, a quorum of the regional Executive Committee (EC) is considered a majority vote of all regional members of the EC that participate in the voting process. Centers are eligible to vote as of the date of the signed contract. No waiting period is required. The regional EC is entitled to one vote per center.

• An email notification to the region will be forwarded one week prior to the opening of officer nominations. A region will be permitted a collection period of one week to nominate individuals for the respective office and subsequently the regional EC will be given three weeks to vote for their member of choice.

• A regional EC member may designate a proxy for the purposes of voting provided that the VQI is notified in writing, by replying to the voting communication, prior to the end of the voting period. For voting that takes place without SVS PSO involvement, the Regional Medical Director will manage and conduct the voting process in accordance with the regional Bylaws’ rules of voting, meeting a quorum. The Regional Medical Director will give prior notification to the regional EC, by means of an agenda, if a vote will be conducted during an upcoming EC meeting or regional meeting.
Regional Bylaw Changes

**Associate Medical Director:**

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

• The Medical Director is a *VQI participating physician* selected for a three-year renewable term by a majority vote, as defined in the regional Bylaws, of the Executive Committee (EC). The Regional Medical Director chairs the EC, prepares the agenda for meetings, prepares an annual budget and is responsible for the overall operations of the region between meetings of the EC. The Regional Medical Director will represent the region on the SVS PSO National Governing Council, unless the EC decides to elect someone else in the region.
All officer nominations and voting are:
- Annually every spring (February – June)
- Processed electronically by the PSO

Northern California Vascular Study Group Leaders and terms:
Lead Medical Director: Matthew Mell, MD Fall – 2018 – Fall 2021
VQC: Nasim Hedayati, MD – 2016 (up for nomination)
RAC – Shipra Arya, MD – Fall 2018 – Fall 2021
AQC – Misty Humphries, MD – Spring 2020 – Spring 2023
Lead Data Manager – Heather Houston, RN – this role can be appointed by LMD
Associate Lead Medical Director – discussion
CME/CE CREDIT FOR REGIONAL MEETINGS

FALL 2020
Des Moines University is the continuing education provider for this activity. This meeting will be awarded 2.0 AMA PRA Category 1 Credit™, AOA credit, and nursing contact hours.

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

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

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

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

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

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

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

For CME/CE credit, please click this link: https://dmu.co1.qualtrics.com/jfe/form/SV_dj3nVgjPUKzVORL

Complete both parts of the form and Don’t Forget to hit SUBMIT for credit!
Participation Award Changes

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

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

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

Updates will be provided via December QI webinar, newsletter, and email blast.
Quality Improvement Update

Fall 2020
Quality Improvement Webinars:

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

- Fourteen charters submitted
  - *LTFU – 5
  - D/C Medications – 4
  - Clinical – 2 (LOS – EVAR, LE)
  - **Documentation – 1 (AAA size compliance)

*2 regions finalizing details for LTFU QI project

** Multi-regional project - finalizing details for AAA size compliance QI project

- Focused phone calls are well attended
Recap of 2019/2020 QI Projects

Putting VQI Data into Action
See what your colleagues are doing with QI

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

Great feedback received for all presentations!

Thanks to all who presented and attended the Online VQI sessions!
# Quality Improvement Details: Charter Information

<table>
<thead>
<tr>
<th>1. Activity</th>
<th>Documentation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. QI Project Initiation</td>
<td>Attestation to include:</td>
<td>2 points</td>
</tr>
<tr>
<td></td>
<td>• QI Project Title</td>
<td>Can be submitted at anytime</td>
</tr>
<tr>
<td></td>
<td>• Problem Statement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Goal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Scope</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Deliverables</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Resources needed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Project Leader</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Clinical Sponsor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Expected start/finish date</td>
<td></td>
</tr>
</tbody>
</table>

Form can be accessed at [https://www.vqi.org/vqi-resource-library/quality-improvement/](https://www.vqi.org/vqi-resource-library/quality-improvement/)

- Project charters should be emailed to [QI@SVSPSO.ORG](mailto:QI@SVSPSO.ORG) or [c.jackson@svspso.org](mailto:c.jackson@svspso.org)
Charter participants become part of focused group calls
  - Interactive discussion sharing barriers and successes
  - Sharing of charters
  - Networking
  - Checking in – where are you in the process
  - Celebrating success

One on one calls, if requested
Newsletters

- The VQI News
  - Distributed every other month
  - Provides updates on regulatory issues, technical updates, and crossover news from the SVS and SVN

- VQI Quality Improvement Newsletter
  - Distributed every other month
  - Focusing on QI processes, tools, and definitions
National QI Project Details

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

• Visit the VQI Members Only Website for sample charters, webinars, and presentations on VQI Quality Improvement Projects. www.vqi.org
• Randy DeMartino, MD (Mayo Clinic Rochester) is the new Chair of the AQC
AQC Update

• Current projects:
  – Common variable help text updates
  – OAAA registry revisions
  – SVS guidelines collaboration
  – COVID variables
  – Patient reported outcome variables
• Marc Passman, MD (UAB) new chair of the VQC taking over for Jose Almeida, MD
  – 1-3 year goals
    • Dedicated podium time for VQI at AVF
    • Update Varicose Vein and IVC quarterly interoperative dashboards
    • Create Venous Stent dashboard
    • Work on LTFU dashboards for all 3 venous procedures
    • Continue work C2 disease and appropriateness of care
    • Continue work with United Healthcare
    • IVC retrieval rate is 30% nationally, need to make this a national quality initiative
    • Create COPI (Center Opportunity for Process Improvement) reports for venous registries
• Nicholas Osborne, MD (Univ of Michigan) FIRST chair of the new Venous RAC
• Arterial RAC and Venous RAC alternate months for submissions:
Proposal Process:

1. Review list of projects approved to avoid duplication
   https://www.vqi.org/data-analysis/rac-approved-project-search/

2. Submit proposal on line:
   http://abstracts123.com/svs1/meetinglogin
Appointments of Vice-Chairs to the VQC and VRAC
  – Dr. Mark Iafrati has been nominated to serve as Vice Chair of the Venous Quality Council
  – Dr. Fedor Lurie has been nominated to serve as Vice Chair of the Venous RAC

Unblinding EVAR Imaging LTFU: Needs to be voted on by each region

Dr. Goodney presented VISION reporting on EVAR Survival, Reintervention, and Surveillance

The GC discussed the impact to moving to virtual regional meetings and ways to make calls more interactive.

Dr. Beck is the new Vice-Chair of the Executive Committee

The PSO will be appointing 2 new at-large members to the PSO Executive Committee
Presentations

• Heather Houston – UC Davis
• Ritu Karki Situala – UC Davis
• Joyse Nacario – UCSF
• Rouchelyn Fallarino and Carlos Moreno - Stanford
Regional QI Project: D/C Medications

Fall 2019: Where we started, 74%

Discharge Antiplatelet+Statin Rate by Region Across VQI (June 2018-May 2019)

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

“***” indicates region’s rate differs significantly from the VQI rate.
Regional QI Project: D/C Medications

Spring 2020: Progress Over Time, 84%

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

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.
Regional QI Project: D/C Medications

Fall 2020: Where We Are Now, 85%

Discharge Antiplatelet+Statin by Region Across VQI (June 2019-May 2020)

Regions (regions with <3 centers with at least 10 cases not shown)
Quality Improvement Project Charter
on
“Long Term Follow-Up with focus on Sac diameter reporting on EVAR and TEVAR patients”

Ritu Karki Sitaula
RN, MSN
Problem Statement:

- Long term regular follow-up for the vascular surgery patient is crucial to maintain the patency and ensure the treatment is working for the patient. But the long-term follow-up for VQI patients between 9 and 21 months for this institution is just 73%
- Another challenge we are facing is the LTFU imaging sac diameter reporting which is 77% for EVAR and 50% for TEVAR according to the VQI semi-annual spring report 2020.

Goal:

- Our goal is to increase the LTFU rate by 17% and reach 90% in 21 months period.
- The goal for our EVAR and TEVAR LTFU imaging documentation i.e. Sac diameter reporting in LTFU is to increase by 10% and 25% and reach 87% and 75% respectively in 21 months of period.

Scope:

- All vascular patients that meets the VQI criteria for LTFU will be included in this project.
- The vascular surgeons, aortic program nurse coordinator, quality improvement team and the vascular clinical staff will be involved on this project.
## Long-Term Follow-Up Rate

<table>
<thead>
<tr>
<th></th>
<th>Spring VQI Report 2020</th>
<th>Fall VQI Report 2020</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC Davis Health</td>
<td>73%</td>
<td>67%</td>
<td>90%</td>
</tr>
<tr>
<td>Nor Cal Region</td>
<td>69%</td>
<td>72%</td>
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### Sac Diameter Reporting on LTFU

<table>
<thead>
<tr>
<th></th>
<th>EVAR</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>77%</td>
<td>38.5%</td>
<td>87%</td>
</tr>
<tr>
<td></td>
<td>50%</td>
<td>55.6%</td>
<td>75%</td>
</tr>
</tbody>
</table>
Deliverable(s):

- Barriers will be identified and tackled accordingly. Education material will be provided to the personnel involved in the project to increase the awareness and teach the importance of the LTFU as well as the project.
- Proper post-op appointment will be scheduled with the help of VQI Epic note. Vascular clinic staff will follow the efficient scheduling system and follow up accordingly. Proper communication will be maintained with other health institution for importing the medical records. Physicians will be closely monitored to ensure the imaging documentation.

Resources Required:

- The vascular surgeons, aortic program nurse coordinator, quality improvement team and the vascular clinical staff will be involved on this project.

Outcome Metrics:

- We will measure our outcome with the semi-annual report generated by VQI.

Process Metrics

- Comparing the percentage of LTFU in the VQI report from previous report will be the evidence of the project success.
<table>
<thead>
<tr>
<th>Milestone / Description</th>
<th>Date (07/20):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the QI project overview</td>
<td>Month 1</td>
</tr>
<tr>
<td>Confirm the baseline outcome metric</td>
<td>Month 2</td>
</tr>
<tr>
<td>Identify root cause/ hypothesis</td>
<td>Month 3</td>
</tr>
<tr>
<td>Identify potential improvement</td>
<td>Month 4-5</td>
</tr>
<tr>
<td>Implement improvements</td>
<td>Month 6-10</td>
</tr>
<tr>
<td>Evaluate progress and confirm action plan</td>
<td>Month 10-21</td>
</tr>
</tbody>
</table>

**Team Members**

**Exec Sponsor:** Chief of Vascular Surgery  
**Sponsor:** UC Davis Health  
**Project Leader:** Data Manager

**Clinical Sponsor:** Chief of Vascular Surgery  
**Process Owner:** Data Manager  
**Team Members:** Matthew W Mell and the Physicians team, Janet Wells, Kathleen Behan and Clinic staff, Ritu Karki Sitaula and QI team
Thank you!
VQI Long Term Follow-Up
Process Improvement Project

Joyce Nacario, BSN, RN, CNOR
**Background:**

VQI Long Term Follow-Up (LTFU) with Imaging: After aneurysm repair or major vascular surgery, patients are susceptible to the late development of complications such as endoleaks, which can occur in up to 20% of patients and may result in rupture. To monitor late onset of complications, VQI requires long-term follow up within 9-21 months to assess the durability of the repair to ensure successful surgical outcomes.

**Current Condition:**

VQI long term follow up our overall performance decreased from 62% (94/151) in FY 2016 to 51% (133/259) in FY 2017.
**Target Condition:** Improve LTFU compliance rate with Imaging from 51% to 75% by utilizing a collaborative standard process by FY 2021

**Why is our compliance low?**

### PEOPLE
1. inadequate knowledge of SVS Clinical Practice Guidelines requirement
2. VQI data manager workload capacity
3. new HVC clinic leadership
4. busy HVC clinic
5. patients not aware of future appointments ahead of time

### PROCESS
1. no VQI LTFU Standard Work document
2. no flag or visual cues in EHR to alert staff
3. LTFU list not checked routinely
4. no process for VQI patient designation reconciliation or hand-off
5. appointment scheduled but no shows
6. LTFU appointments are not done prior to discharge from hospital of
7. VQI is not emphasized during weekly huddles

### DOCUMENTATION
1. no weekly compliance dashboard
2. wrong patient contact information
3. clinic staff doesn’t access VQI LTFU pt list
4. **Office Visit notes are not complete**
   - it is not clear which patients are VQI at the time of visit
5. no P & P for VQI LTFU
6. missing death date of deceased patients in the chart
<table>
<thead>
<tr>
<th>Task</th>
<th>Responsible Staff</th>
<th>Task Description &amp; Key Points</th>
<th>Resources/Steps: VQI Standard Work Documents are found in the Vascular Share Drive &gt;&gt; VQI folder &gt;&gt; VQI Standard Work folder &gt;&gt; VQI Standard Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Vascular Surgery Department</td>
<td>The vascular surgical fellow is usually the person responsible for completing this exam. The fellows are prepped for this exam.</td>
<td>Complete the exam using the VQI registry. This exam consists of the VQI team from the Vascular Surgery Department.</td>
</tr>
<tr>
<td>2.</td>
<td>Vascular Surgery Department</td>
<td>The exam is done in the OR. The exam is done in the OR.</td>
<td>The exam is done in the OR. The exam is done in the OR.</td>
</tr>
<tr>
<td>3.</td>
<td>Vascular Surgery Department</td>
<td>The exam is done in the OR.</td>
<td>The exam is done in the OR.</td>
</tr>
<tr>
<td>4.</td>
<td>Vascular Surgery Department</td>
<td>The exam is done in the OR.</td>
<td>The exam is done in the OR.</td>
</tr>
</tbody>
</table>

**Title:** VQI Registry – Vascular Team Standard Work

**Date Updated:** 7/20/2023

**Department who must adopt:** Vascular Surgery Department

**Operators:** Vascular Surgery VQI Team

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**What we’ve done so far:**

- Standard Work Document
What we’ve done so far:

✓ Built 8 LTFU Templates in EMR
✓ Dashboard of LTFU Compliance Rate
✓ LTFU Work List
✓ Meeting Goal

IAP is not a bonus; rather it is intended to represent part of staff compensation that is earned through achievement of certain goals. The plan was established to ensure we are all working together toward the same priorities.
To Do LIST:

- CA Death Registry access
- Keep up with Pathways changes
- After Visit Summary/ Discharge Summary

Visibility

Medications:
You will need to take one or more blood thinners following surgery. Aspirin (81mg) has been prescribed. Please take your blood thinners as they are directed. Do not stop taking these medications unless instructed to do so by your vascular surgeon.

While on blood thinners you may notice an increase in bruising or bleeding. If you start having excessive bleeding (i.e. nose bleeds, rectal bleeding), please contact your surgeon.

Most patients blood pressure medications are either discontinued or greatly reduced following surgery. Your medications are generally reintroduced in 1-2 months.

Follow up: Add LTFU visit in 1 year

Your first follow up appointment will generally be 4 weeks after your operation in the Vascular Surgery clinic. You will have a CT scan and labs drawn prior to your appointment. The appointment for this visit will be provided to you prior to leaving the hospital.
“Success is not just the destination; it’s the entire journey, every bit of it. It’s not just the outcome rather it’s the entire process.”

— Mohsin Ali Shaukat

Thank you!
Joyce.Nacario@ucsf.edu
Sustaining High Performance in Long Term Follow Up Care

Rouchelyn Fallorina, Carlos Moreno, Eri Fukaya, MD, Ronald Dalman, MD
NorCal VSG Regional Meeting
October 24, 2020
Background

- Previously we demonstrated improving clinic and scheduling workflows to focus on long-term follow-up (LTFU) and imaging for EVAR procedures in alignment with VQI National Improvement strategies resulted in a significant increase in overall VQI LTFU rates.
Background

• Maintaining a high rate of patient clinical follow up can be challenging, the VQI database provides an opportunity to capture LTFU patients in the VQI registries.

• Our goal was to identify operational needs and revise/expand workflows to expand to other VQI procedures while sustaining the high LTFU rate for EVAR procedures and achieve higher overall VQI LTFU rates.
Improvement Strategies

• The biggest challenges are:
  • scheduling patients needing 9 to 21-month follow-up
  • obtaining missing data for patients unable to follow-up in person

• We discovered that mixing VQI follow-up with regular clinic work caused patient confusion.
Improvement Strategies

• To ensure VQI scheduling compliance with the required timeline, clinic workflow was revised to designate this responsibility to a single individual. Tasks for VQI coordinator:
  1. Patient-centered complex scheduling
  2. Obtaining images
  3. Using telephone follow-up
  4. Sending reminder letters and phone calls

• All clinic staff trained
Results

• The overall completed 2017 follow up rate for 300 VQI patients increased to 92% compared to 69% in 2013
Challenges/Lessons Learned

- Sustaining continuum of care is not an easy task
- The main challenge we faced was assigning VQI follow-up responsibilities to a single individual
Success Factors

• In order to steadily increase LTFU in 8 registries with an annual follow up of over 300 patients, securing the necessary resources to complete these tasks was essential

• Continuum of open communication, continuous learning environment with sufficient number of staff, and understanding the potential failure points associated with VQI LTFU will help sustain a high completion rate going forward
THANK YOU
rfallorina@stanfordhealthcare.org / CaMoreno@stanfordhealthcare.org
M2S Updates

Fall 2020

Regional Group Meetings
VQI Technology Updates
• **Barcode scanning feature for PVI device capture**
  
  — Released on **2/26/2020**
  
  — This new feature can be used to enter device information for all treatment types where the Product Number or DI is required (i.e., excludes plain balloons).
  
  — This feature is designed to make device entry easier and more efficient for users who have access to a scanner, but the use of this feature is optional. Users may continue to manually enter device product codes and UDIs (unique device identifiers).
• Hemodialysis Access (HemoDA) minor revision
  – Released on **3/26/2020**
  – Demographics tab:
    • GFR (eGFR): The GFR numeric field will not allow decimal values. If a decimal value is entered, the value will be automatically rounded to the nearest whole number.
    • PAD: "None" has been added to options.
    • HTN: Updated help text and criteria.
  – History tab:
    • Central Venous Dialysis Catheter Chest: "None" has been added to options.
  – Procedure tab:
    • Intraoperative Target Artery Diameter: Field updates to retire drop-down options and require numeric entry. One decimal value allowed, the value will be automatically rounded to the nearest tenth. Min/max range values are dependent on the selected Inflow Artery.
- Hemodialysis Access (HemoDA) minor revision (continued)
  - Procedure tab:
    - Intraoperative Target Vein Diameter: Field updates to retire drop-down options and require numeric entry. One decimal value allowed, the value will be automatically rounded to the nearest tenth. Min/max range values are dependent on the selected Inflow Artery.
  - Post-Op tab:
    - Periop Antibiotics: 3 new antibiotic fields have been added ("1st 2nd Gen Cephalosporin", "Start <1hr Pre-op” and “Stop <24hr Post-op”).

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Technology Released in Q1 2020
Across-registry revision Q2 2020

- Released on 4/9/2020
- Hypertension Harmonization

  - The Hypertension field (in the Demographics tab) was updated to align with current clinical guidelines. Help text and select options are being updated in the CAS, CEA, EVAR, IVC, Infra, LEA, Open AAA, PVI, Supra, TEVAR, VMC, and VUR registries as follows:

  - New Help Text: “Hypertension = documented in History or recorded blood pressure >= 130/80 (elevation of either systolic or diastolic) on 3 or more occasions. No = no hypertension Yes, controlled = HTN treated with medication, but BP < 130/80 deemed in control; Yes, uncontrolled = HTN not adequately controlled, typically >=130/80 (elevation of either systolic or diastolic) on two occasions.”

  - New select options are: “No”, “Yes, controlled”, or “Yes, uncontrolled.” The former option “Yes (>=140/90 or history) was retired.
Across-registry revision Q2 2020 (continued)

- Antibiotics Harmonization

- Data fields to collect Peri-op antibiotics in the Post-Op tab for the CEA, EVAR, Infra, Open AAA, Supra and TEVAR registries were retired and replaced with new data fields as described below. Peri-op antibiotics were not previously captured in the LEA registry, but the new set of fields were also added to the Post-op section of the amputation registry. Please review new help text associated with these fields.

  - The new subset of data fields are as follows:
    - “1st 2nd Gen Cephalosporin”
    - “Start <1hr Pre-op” (Displayed only if 1st 2nd Gen Cephalosporin is Yes.)
    - “Stop <24hr Post-op” (Displayed only if 1st 2nd Gen Cephalosporin is Yes.)
Across-registry revision Q2 2020 (continued)

- Free text fields to capture details of “Other” Devices:
  - The VQI updated several registries to add free text fields, labeled as “Please Specify Other Device(s)”, to capture specific device details when “Other” is selected in device lists.
    - CEA: to capture “other” Patch Manufacturer in Procedure tab
    - CAS: to capture “other” EPD Type and “other” Flow Reversal Type in Procedure tab for lesions 1 and 2
    - EVAR: to capture “other” Anchors Used in Procedure and Re-Tx tab and on Follow-up Re-Tx 1, Re-Tx 2, and Re-Tx 3 tabs
    - IVC Filter: to capture “other” Device Manufacturer and “other” Filter Type in Procedure tab.
    - TEVAR: to capture “other” Anchor Type in Aortic Devices and Re-Tx tab and on Follow-up Re-Tx 1 and Re-Tx 2 tabs
• TEVAR Revision Q2 2020
  – Released on 4/29/2020
  – Procedure Tab:
    • Sheath size and closure device information will now be captured for right, left or bilateral access. The new fields appear once an “Access” type other than “None” has been selected.
      – Largest Sheath Size (Fr) - The largest French sheath size used by side. There is a Min/Max range of 16-30. (A table with sheath sizes is included in the help text)
      – Number of Closure Devices - The number of closure devices used by side (0 to >5).
      – Closure Device Type – The brand name of the closure device(s) used at the access site. This field will appear if “Number of Closure Devices” is greater than zero.
      – Specify Other - If “Other” is selected as the “Closure Device Type” this field will appear. Please enter manufacturer and device details by free-text.
TEVAR Revision Q2 2020 (continued)

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

- Released on 6/29/2020

Demographics Tab:
- The “Ambulation” field will no longer appear if the “Bed bound” option is chosen for the “Functional Status” field. Previously the “Ambulation” field displayed and defaulted to “Bedridden”. This change was applied to both the Demographics tab in the procedure form, as well as in the Long Term Follow-up form. The existing select option of “Bedridden” for the “Ambulation” field no longer appears on the form with this new dependency.

Procedure Tab:
- Closure Device fields: The following fields were added for both access sites, in both the Basic and Comprehensive PVI forms:
  - “Number of Closure Devices”, with the options: “1, 2, 3, and >3”.
  - “Closure Outcome”, with the options: “Closure device successful; Closure device failed; Closure device failed, intervention; and Closure device failed, surgery”.
- The “Closure Device Successful” field was retired, and appears in the Data Download files preceded with “R-” (R- Closure Device Successful).
• PVI revision in Q2 2020 (continued)
  – Post-Procedure Tab:
    • “Hematoma” field: The select options for the existing Hematoma fields (for access site 1 and 2 as applicable) were expanded for greater accuracy.
      – The following Hematoma options were maintained: “No, Minor, Transfusion and Thrombin injection”.
      – The prior “Surgical Rx” option was re-named “Surgical Re-Tx (intra-op or post-op)”
      – One new option was added: “Interventional Re-Tx (intra-op or post-op)”.
    • The “Right/Left Amputation Level” fields no longer appear if the “No” option is chosen for the “Amputation During Admission” field. The existing select option of “No” for the “Right and Left Amputation Level” fields no longer appear on the form with this new dependency.
Add PVI Procedure Context variables to Follow-up data download file

- Released on 6/29/2020
- In response to member feedback, the VQI added two new columns to the PVI Follow-up data download file to identify the specific arteries and sides treated as selected on the procedure form and displayed in the PATHWAYS follow-up form.

- The new columns appear before the “Current Patency” fields in the PVI Long Term Follow-up Data Download file. Follow-Up Data Download file additional columns:
  - “Arteries Treated”
  - “Side”
- The columns appear in groups by field: “Artery Treated 1, Artery Treated 2, Artery Treated 3, Artery Treated 4.., then Side 1, Side 2, Side 3, ..., then Current Patency 1, Current Patency 2”, etc.
VSR diameter unit change mm² -> mm and related help text updates

- Released on 7/15/2020
- The units associated with the “Minimal Diameter Within Stenosis” and “Minimal Diameter at Reference Location” fields were changed from “mm2” to “mm”.

![Procedure Information and Lesion Treatment Details](image-url)
Hemodialysis Access (HemoDA) revision for tapered graft

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

![Tapered Graft Details](image-url)
Revised COVID-19 message for Follow-up Mandatory Fields

- Released on **7/29/2020**
- The VQI added a temporary message about the impact of COVID-19 on LTFU completion rate calculations. The following message is displayed when submitting a LTFU that is missing any mandatory variable:
  - “IMPORTANT: The PSO understands that routine follow up visits may not be possible due to COVID-19 state mandates. Special considerations will be part of our LTFU calculation for 2020, please collect all of the required fields that are possible during this time.”
- As a reminder, the VQI allows phone and telehealth appointments to be used for LTFU when Face-to-Face visits are not feasible.
Technology Released in Q3 2020

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

- Across-registry revision to add COVID-19 variables
- TEVAR Revision to align with SVS/STS guidelines
- Vascular Ultrasound Registry (VUR) major revision
- Varicose Vein Registry (VVR) revision for New CEAP Clinical Classification
- Venous Stent Registry (VSR) revision for New CEAP Clinical Classification
- Vascular Medicine Consult (VMC) registry revision to add new drug category and update CAD
- VQI PRO collection for PVI
Registry Projects
These projects are conducted within the SVS PSO and only non-identifiable data (removal of patient, center and physician information) will be provided to Medtronic/BARD/Cook/Gore or the FDA. Only standard of care practice is being evaluated. For such PSO activities, patient informed consent and Institutional Review Board review are not required.

Sites must follow their institutional guidelines
The SVS PSO is excited to announce the reopening of the TEVAR Dissection Surveillance Project to evaluate the Cook Zenith Dissection Endovascular System. FDA approval was granted for this device after safety and effectiveness were demonstrated in pre-market studies of complicated dissection with the proviso that the efficacy of TEVAR treatment of descending aortic dissection would be more fully analyzed through post-market surveillance, as was done through VQI for the W. L. Gore and Medtronic devices after their approval.

- Patients will have 30 day, and annual visits for 5 years.
- Total reimbursement of $4,000 per patient for a patient followed annually for 5 years
TEVAR Dissection Surveillance Project is Open for Enrollment

- 0 of the 180 required patients enrolled (5 potential cases in process)
  - Retrospective enrollment allowed- All eligible cases from December 31, 2018 (protocol FDA approval date)
- 12 of 40 sites enrolled (11 more in contracting)
  - This project is conducted within the SVS PSO and only non-identifiable data (removal of patient, center and physician information) will be provided to Medtronic or the FDA. Only standard of care practice is being evaluated. For such PSO activities, patient informed consent and Institutional Review Board review are not required.

For more information, please contact: tevarproject@m2s.com
PVI Post-Market Surveillance Projects

Medtronic IN.PACT® Admiral® DCB ISR Project

The Bard® LifeStent® Popliteal Artery Stent Project

Objective: To conduct long term post-market surveillance of the safety and effectiveness of the Bard® LifeStent® Vascular Stent Systems for the treatment of symptomatic de novo or restenotic lesions in the popliteal artery.

Patients will have 12 month and a 24 month follow up visits.

Total reimbursement of $1,400 per patient for a patient followed annually for 2 years.

2 additional fields added:
- Check box to indicate that patient is eligible to enroll project based on the inclusion and exclusion criteria.
- Post-procedure – site will be asked if the patient has had a stroke.
- Angios performed at re-intervention and sent to M2S.
Enrollment Complete

- 74 of the 74 required patients enrolled
  - Retrospective enrollment allowed- All eligible cases from 10/1/2016 (protocol FDA approval date)

- 29 of 30 sites enrolled
  - This project is conducted within the SVS PSO and only non-identifiable data (removal of patient, center and physician information) will be provided to Bard or the FDA. Only standard of care practice is being evaluated. For such PSO activities, patient informed consent and Institutional Review Board review are not required.
• The Medtronic IN.PACT® Admiral® DCB ISR Project Post-market registry surveillance of the clinical use of the Medtronic IN.PACT® Admiral® Paclitaxel-Coated PTA Balloon.

• Objective: To assess the long-term safety and performance of the IN.PACT® Admiral® DCB in a U.S. population for the treatment of ISR lesions in the superficial femoral and popliteal arteries.

• Patients will be followed at 12, 24 and 36 months

• Total reimbursement of $1,950 per patient for a patient followed annually for 3 years

• 1 additional field added:
  – Check box to indicate that patient is eligible to enroll project based on the inclusion and exclusion criteria.
Enrollment Complete

- 300 of the 300 required patients enrolled
  - Retrospective enrollment allowed- All eligible cases from December 6, 2016 (protocol FDA approval date)
- 50 of 50 sites enrolled
  - This project is conducted within the SVS PSO and only non-identifiable data (removal of patient, center and physician information) will be provided to Medtronic or the FDA. Only standard of care practice is being evaluated. For such PSO activities, patient informed consent and Institutional Review Board review are not required.
For More Information Contact:

Medtronic IN.PACT® Admiral® DCB ISR Project
Anita Duxbury
MedtronicAdmiralDCB@m2s.com

The Bard® LifeStent® Popliteal Artery Stent Project
Charlotte Stirewalt
BardLifeStent@m2s.com
2019 Claims Validation
The 2019 Claims Validation process was launched in July.
• All hospital managers and physicians at selected centers have been notified.
• The list of centers selected to participate in the 2019 validation cycle is posted to the Resources in PATHWAYS.
• An interactive claims validation webinar will be announced soon and will be recorded for future reference.

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

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

• Each announcement that we send will indicate which user groups it was sent to.

• A notification is posted in PATHWAYS with a link to each announcement sent for all centers impacted by the update.

• Please make sure you review the notices that pop up on your PATHWAYS screen to see important reminders and abstraction tips also!
Meeting Evaluation

- What did you like about this meeting?
- What can we do better?
- Next meeting location?
  - Grant funding issues with Industry
  - Remote?
- VOTE on unblinding LTFU sac diameter
Participation Award Credit

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

  More than one of you in a room? Email Leka Johnson @ ljohnson@svspso.org to get credit

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

For CME/CE credit, please click this link: https://dmu.co1.qualtrics.com/jfe/form/SV_dj3nVgjPUKzVORL

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