Canadian Vascular Quality Initiative (CVQI)

April 17, 2021
3 pm - 5:30 pm ET
Remote
Before we get started, please sign in.

1. Click “Participants” in the box at the top or bottom of your screen.
2. If your full name is not listed, hover next to your name and you’ll see “rename”.
3. Click and sign in.

If you can’t sign in, please email Leka Johnson at ljjohnson@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>3:00 pm</td>
<td>Welcome</td>
<td>No</td>
</tr>
<tr>
<td>3:05 pm</td>
<td>Regional Data Review</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Graham Roche-Nagle, MD, Regional Medical Leader, CVQI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Learning Objectives:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Use the VQI regional reports to establish quality improvement goals for the vascular patients (outcomes) and for their center (process).</td>
<td></td>
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<tr>
<td></td>
<td>• Interpret and compare each centers’ VQI results to regional and national benchmarked data.</td>
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<tr>
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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>
<td></td>
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<tr>
<td></td>
<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>
<tr>
<td>4:05 pm</td>
<td>Regional QI Proposal</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Graham Roche-Nagle, MD, Regional Medical Leader, CVQI</td>
<td></td>
</tr>
<tr>
<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>
| 4:35 pm| National VQI Update  
Carrie Bosela, RN, CPC, CPC-I, Senior Director Clinical Operations, 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 |
| 5:05 pm| AQC Update – Mary MacDonald, M.D.                                      | No        |
|        | VQC Update – Graham Roche-Nagle, M.D.                                  | No        |
|        | RAC Update – Graham Roche-Nagle, M.D.                                  | No        |
|        | Governing Council Update – Graham Roche-Nagle, M.D.                   | No        |
| 5:20 pm| National Research Projects – Graham Roche-Nagle, M.D.                  | No        |
| 5:30 pm| Open Discussion/Next Meeting/Meeting Evaluation                        | No        |
No presenter has a disclosure or conflict of interest to report.
Welcome and Introductions

Toronto General Hospital
Thunder Bay Regional Health Science Center
Covenant Health-Grey Nuns Hospital
CISSSO Outaouais
CHUM

Halifax Infirmary Robie Street Entrance - QEII
Sunnybrook Health Sciences Centre
Peter Lougheed Centre
Nominations/Elections:

Associate Medical Director:

Dr. Yaasin Abdulrehman-Grey Nuns
VQI Regional Quality Report

Spring 2021

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

About the Report

The VQI Regional Quality Report is produced semiannually to provide centers and regions targeted, comparative results and benchmarks for a variety of procedures, process measures, and postoperative outcomes. The report is organized into separate reports that can be quickly accessed by clicking on the report names in the table of contents on the left.

For drill-down and data feedback on your center’s cases, click on “VQI Case Appendix” in the table of contents on the left.
Important Notes

- All results are based on data entered into the VQI as of January 31, 2021. Any subsequent changes or updates to data after that date will not be reflected in this report.

- Procedure timeframes and inclusion/exclusion criteria are given at the top of each report. Cases are also excluded if outcomes are missing or not enough data was entered to determine whether the case met inclusion/exclusion criteria.

- Regions must have at least 3 centers with included cases for regional results to be displayed in tables and line charts.

- Regions must have at least 3 centers with at least 10 included cases per center for regional results to be displayed in bar charts. It is therefore possible for a region’s results to be displayed in tables and line charts, but not in bar charts.

- For risk-adjusted reports, regions must have at least 3 centers with at least 10 complete cases per center for regional results to be displayed in bar charts. It is therefore possible for a region’s results to be displayed in tables and line charts, but not in bar charts.

- In all graphics, "**" indicates a p-value <.05.
Dashboard

The dashboard provides a high-level summarization of your center’s results for each of 25 reports, and gives both regional and VQI-wide benchmarks for comparison. The “Your Center” column gives the percentage of your center’s cases with the noted outcome. Numbers in parentheses give the number of cases with the outcome and the total number of cases meeting the inclusion criteria for that report. The “Your Region” and “VQI Overall” columns give the overall, 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 ([25th|50th|75th]). Your center’s results are highlighted blue if your center is in the “best” 25th percentile for VQI Overall, and coral if your center is in the “worst” 25th percentile for VQI Overall.

For details on a particular report, click on the report name in the table of contents on the left.

Legend: Blue = “Best” 25th percentile  Coral = “Worst” 25th percentile

Note that procedure volume results are not highlighted
Dashboard Highlights

• New Colors

• New procedure groupings

• New Case Appendix with...
Dashboard Highlights

• Embedded drill-down and data feedback

VQI Case Appendix

Winter 2020

About the Appendix

The VQI Case Appendix provides embedded data feedback and drill-down for each dashboard report. Using the appendix, centers can easily identify and download cases that were reviewed or excluded from each report, as well as cases with each noted outcome.

The interactive tables below give your center’s cases (both reviewed and excluded) entered for the procedure timeframe of each report (as of 11/30/2020). Each row references a particular case and each case is referenced by a PRIMPROCID, a unique case identifier assigned to each procedure to protect patient identity. Additional data elements are included for each case to further facilitate quality improvement efforts, including procedure and patient characteristics, length-of-stay (LOS) data, discharge medication data, complication data, and other data elements related to dashboard report construction.

To download a .csv or .xlsx file containing your center’s data, click on either the “CSV” or “Excel” buttons located above each interactive table.
Dashboard Highlights

- Embedded drill-down and data feedback

<table>
<thead>
<tr>
<th>INFRA</th>
<th># of INFRA cases in procedure timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFRA CLAUD (CLI) Cases Reviewed: 9 (66)</td>
<td># of INFRA cases included in each INFRA dashboard</td>
</tr>
<tr>
<td>INFRA Cases Excluded: 5</td>
<td># of INFRA cases not included in either INFRA dashboard (note: 5+9+66=80)</td>
</tr>
</tbody>
</table>

Change the number of rows for display (10, 25, 50, 100, 250, or 500)

Binary indicators for dashboard inclusion (1=yes, 0=no)

Use scroll bar to see additional variables

Download .csv or .xlsx file of your data

Returns every row containing at least 1 cell satisfying the value entered in the search bar (not incredibly useful)

Sort on any column by clicking the double arrows

Click to page thru your cases

Showing 1 to 10 of 80 entries

<table>
<thead>
<tr>
<th>PRIMPROCID</th>
<th>In INFRA CLAUD</th>
<th>In INFRA CLI</th>
<th>Indication Right</th>
<th>Indication Left</th>
<th>Side Treated</th>
<th>Postop LOS</th>
<th>Total LOS</th>
<th>Discharge Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td></td>
<td>Not Treated</td>
<td>Tissue Loss</td>
<td>L</td>
<td>4</td>
<td>7</td>
<td>Home</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td></td>
<td>Not Treated</td>
<td>Tissue Loss</td>
<td>L</td>
<td>2</td>
<td>3</td>
<td>Home</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td></td>
<td>Not Treated</td>
<td>Tissue Loss</td>
<td>L</td>
<td>8</td>
<td>8</td>
<td>Rehab Unit</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td></td>
<td>Not Treated</td>
<td>Tissue Loss</td>
<td>L</td>
<td>12</td>
<td>12</td>
<td>Rehab Unit</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td></td>
<td>Not Treated</td>
<td>Claudication</td>
<td>L</td>
<td>2</td>
<td>2</td>
<td>Home</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td></td>
<td>Not Treated</td>
<td>Claudication</td>
<td>L</td>
<td>2</td>
<td>2</td>
<td>Home</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td></td>
<td>Tissue Loss</td>
<td>Tissue Loss</td>
<td>R</td>
<td>13</td>
<td>13</td>
<td>Rehab Unit</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td></td>
<td>Tissue Loss</td>
<td>Not Treated</td>
<td>R</td>
<td>5</td>
<td>15</td>
<td>Rehab Unit</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td></td>
<td>Not Treated</td>
<td>Acute Ischemia</td>
<td>L</td>
<td>5</td>
<td>7</td>
<td>Home</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td></td>
<td>Rest Pain</td>
<td>Not Treated</td>
<td>R</td>
<td>2</td>
<td>2</td>
<td>Rehab Unit</td>
</tr>
</tbody>
</table>
Dashboard

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For details on a particular report, click on the report name in the table of contents on the left.

<table>
<thead>
<tr>
<th>Procedure Group</th>
<th>Outcome</th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Procedure Volume</td>
<td>[307</td>
<td>356</td>
<td>477]</td>
</tr>
<tr>
<td>Multiple</td>
<td>Procedure Volume, All Years</td>
<td>[285</td>
<td>508</td>
<td>1309]</td>
</tr>
<tr>
<td></td>
<td>Long-Term Follow-up</td>
<td>88.8% [75%</td>
<td>77%</td>
<td>93%]</td>
</tr>
<tr>
<td></td>
<td>Discharge Medications</td>
<td>82.2% [79%</td>
<td>82%</td>
<td>83%]</td>
</tr>
<tr>
<td>TFEM CAS ASYMP</td>
<td>Stroke/Death</td>
<td>NA (&lt;3 centers)</td>
<td>1.4% [0%</td>
<td>0%</td>
</tr>
<tr>
<td>TFEM CAS SYMP</td>
<td>Stroke/Death</td>
<td>NA (&lt;3 centers)</td>
<td>4.8% [0%</td>
<td>0%</td>
</tr>
<tr>
<td>TCAR ASYMP</td>
<td>Stroke/Death</td>
<td>NA (&lt;3 centers)</td>
<td>1.4% [0%</td>
<td>0%</td>
</tr>
<tr>
<td>TCAR SYMP</td>
<td>Stroke/Death</td>
<td>NA (&lt;3 centers)</td>
<td>2.1% [0%</td>
<td>0%</td>
</tr>
<tr>
<td>CEA ASYMP</td>
<td>Stroke/Death</td>
<td>1.4% [0%</td>
<td>0%</td>
<td>0%]</td>
</tr>
<tr>
<td></td>
<td>Postop LOS&gt;1 Day</td>
<td>43.8% [40%</td>
<td>55%</td>
<td>67%]</td>
</tr>
<tr>
<td>CEA SYMP</td>
<td>Stroke/Death</td>
<td>2.7% [2%</td>
<td>2%</td>
<td>10%]</td>
</tr>
<tr>
<td>EVAR</td>
<td>Postop LOS&gt;1 Day</td>
<td>50% [44%</td>
<td>49%</td>
<td>56%]</td>
</tr>
<tr>
<td></td>
<td>Postop LOS&gt;2 Days</td>
<td>15.5% [14%</td>
<td>16%</td>
<td>19%]</td>
</tr>
<tr>
<td>Sac Diameter Reporting</td>
<td>Sac Diameter Reporting</td>
<td>88% [84%</td>
<td>90%</td>
<td>98%]</td>
</tr>
<tr>
<td>Sac Size Guideline</td>
<td>Sac Size Guideline</td>
<td>79.8% [76%</td>
<td>87%</td>
<td>91%]</td>
</tr>
<tr>
<td>TEVAR</td>
<td>Sac Diameter Reporting</td>
<td>NA (&lt;3 centers)</td>
<td>59.8% [29%</td>
<td>50%</td>
</tr>
<tr>
<td>OAAA</td>
<td>In-Hospital Mortality</td>
<td>3.7% [0%</td>
<td>5%</td>
<td>12%]</td>
</tr>
<tr>
<td>SVS Cell-Saver Guideline</td>
<td>SVS Cell-Saver Guideline</td>
<td>80.5% [80%</td>
<td>88%</td>
<td>94%]</td>
</tr>
<tr>
<td>SVS Iliac Inflow Guideline</td>
<td>SVS Iliac Inflow Guideline</td>
<td>99% [99%</td>
<td>100%</td>
<td>100%]</td>
</tr>
<tr>
<td>PVI CLAUD</td>
<td>ABI/Toe Pressure</td>
<td>81.8% [72%</td>
<td>72%</td>
<td>87%]</td>
</tr>
<tr>
<td>INFRA CLTI</td>
<td>Major Complications</td>
<td>4.1% [1%</td>
<td>3%</td>
<td>5%]</td>
</tr>
<tr>
<td>SUPRA CLTI</td>
<td>Major Complications</td>
<td>8.2% [4%</td>
<td>9%</td>
<td>17%]</td>
</tr>
<tr>
<td>LEAMP</td>
<td>Postop Complications</td>
<td>NA (&lt;3 centers)</td>
<td>10.7% [5%</td>
<td>10%</td>
</tr>
<tr>
<td>HDA</td>
<td>Primary AVF vs. Graft</td>
<td>93.8% [91%</td>
<td>92%</td>
<td>93%]</td>
</tr>
<tr>
<td>IVCF</td>
<td>Filter Retrieval Reporting</td>
<td>NA (&lt;3 centers)</td>
<td>59.7% [36%</td>
<td>55%</td>
</tr>
</tbody>
</table>

Legend: Blue = “Best” 25th percentile  Coral = “Worst” 25th percentile

Note that procedure volume results are not highlighted
# Procedure Volume, All Years

Includes all procedures with procedure date through December 31, 2020

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

<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>CAS (TFEM CAS &amp; TCAR)</td>
<td>NA (&lt;3 centers)</td>
<td>49828</td>
<td></td>
</tr>
<tr>
<td>CEA</td>
<td>952</td>
<td>150058</td>
<td></td>
</tr>
<tr>
<td>EVAR</td>
<td>1348</td>
<td>59655</td>
<td></td>
</tr>
<tr>
<td>HDA</td>
<td>836</td>
<td>59322</td>
<td></td>
</tr>
<tr>
<td>INFRA</td>
<td>1214</td>
<td>64165</td>
<td></td>
</tr>
<tr>
<td>IVCF</td>
<td>NA (&lt;3 centers)</td>
<td>15055</td>
<td></td>
</tr>
<tr>
<td>LEAMP</td>
<td>NA (&lt;3 centers)</td>
<td>19810</td>
<td></td>
</tr>
<tr>
<td>OAAA</td>
<td>661</td>
<td>14321</td>
<td></td>
</tr>
<tr>
<td>PVI</td>
<td>3372</td>
<td>251233</td>
<td></td>
</tr>
<tr>
<td>SUPRA</td>
<td>624</td>
<td>20722</td>
<td></td>
</tr>
<tr>
<td>TEVAR</td>
<td>334</td>
<td>19158</td>
<td></td>
</tr>
<tr>
<td>Varicose Veins</td>
<td>NA (&lt;3 centers)</td>
<td>42963</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>9486</td>
<td>766290</td>
<td></td>
</tr>
</tbody>
</table>
**Procedure Volume by Center in Your Region (Through Dec 2020)**

- Other centers in your region
- Your center

**Procedure Volume Across VQI (Through Dec 2020)**

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

*Others* indicates centers that do not belong to a regional group.
Physician Specialties

Physician Specialties Across VQI (as of January 31, 2021, N=5617 Physicians)

- Vascular Surgery: 50%
- Cardiology
- Radiology
- Other
- General Surgery
- Cardiac Surgery
- Neurosurgery
- None: 0%
Physician Specialties Across Your Region (as of January 31, 2021, N=45 Physicians)
Long-Term Follow-up

Procedures performed between January 1 and December 31, 2018

Includes CAS (TFEM CAS and TCAR), CEA, EVAR, HDA, 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>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS</td>
<td>NA (&lt;3 centers)</td>
<td>7782 (64%)</td>
</tr>
<tr>
<td>CEA</td>
<td>144 (88%)</td>
<td>18807 (71%)</td>
</tr>
<tr>
<td>EVAR</td>
<td>224 (84%)</td>
<td>7327 (72%)</td>
</tr>
<tr>
<td>HDA</td>
<td>NA (&lt;3 centers)</td>
<td>8010 (67%)</td>
</tr>
<tr>
<td>INFRA</td>
<td>205 (90%)</td>
<td>7339 (72%)</td>
</tr>
<tr>
<td>IVCF</td>
<td>NA (&lt;3 centers)</td>
<td>2003 (77%)</td>
</tr>
<tr>
<td>LEAMP</td>
<td>NA (&lt;3 centers)</td>
<td>3309 (66%)</td>
</tr>
<tr>
<td>OAAA</td>
<td>98 (90%)</td>
<td>1251 (75%)</td>
</tr>
<tr>
<td>PVI</td>
<td>595 (87%)</td>
<td>34936 (70%)</td>
</tr>
<tr>
<td>SUPRA</td>
<td>102 (88%)</td>
<td>2359 (72%)</td>
</tr>
<tr>
<td>TEVAR</td>
<td>NA (&lt;3 centers)</td>
<td>2684 (69%)</td>
</tr>
<tr>
<td>Overall (Jan-Dec 2018)</td>
<td>1614 (89%)</td>
<td>95807 (70%)</td>
</tr>
<tr>
<td>Overall (Jan-Dec 2017)</td>
<td>1454 (81%)</td>
<td>86744 (73%)</td>
</tr>
</tbody>
</table>
Long-Term Follow-Up by Center in Your Region (Jan-Dec 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 (Jan-Dec 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 January 1 and December 31, 2020

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

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

<table>
<thead>
<tr>
<th></th>
<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>
<td></td>
</tr>
<tr>
<td>CEA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EVAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFRA</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>LEAMP</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>OAAA</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>PVI</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SUPRA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEVAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your Center Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your Region Overall</td>
<td>1716</td>
<td>82%</td>
<td>7%</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>VQI Overall</td>
<td>81735</td>
<td>85%</td>
<td>9%</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Discharge Antiplatelet+Statin by Center in Your Region (Jan-Dec 2020)

Centers (centers with <10 cases not shown)

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

Discharge Antiplatelet+Statin by Region Across VQI (Jan-Dec 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 regions' rate differs significantly from the VQI rate.
CEA ASYMP: Stroke/Death

Procedures performed between January 1 and December 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>73</td>
<td>8867</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among procedures meeting inclusion criteria</td>
<td>1.4%</td>
<td>0.9%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>56</td>
<td>8410</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among cases with complete data</td>
<td>1.8%</td>
<td>0.9%</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>1</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 (Jan-Dec 2020)

Other centers in your region  Your center  Observed  Expected

Centers (centers with <10 complete cases not shown)

Rates shown are among 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
(Jan-Dec 2020)

Observed  Expected

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

Rates shown are among complete cases. *** Indicates region’s observed rate differs significantly from its expected rate.
CEA SYMP: Stroke/Death

Procedures performed between January 1 and December 31, 2020

Includes symptomatic admissions for Carotid Endarterectomy (CEA) only. Symptomatic admissions are admissions where the patient had an ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral CEA or CAS, or any procedure with a concomitant CABG, proximal endovascular, distal endovascular, or “Other” arterial procedure.

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

<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>150</td>
<td>4593</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among procedures meeting inclusion criteria</td>
<td>2.7%</td>
<td>1.8%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>131</td>
<td>4416</td>
<td></td>
</tr>
<tr>
<td>Observed rate of stroke or death among cases with complete data</td>
<td>3.1%</td>
<td>1.8%</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>0.36</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 Symptomatic Admissions by Year

Rates shown are observed rates among cases meeting inclusion criteria.
Stroke or Death after CEA for Symptomatic Admissions in Your Region (Jan-Dec 2020)

Rates shown are among complete cases. "*" indicates center's observed rate differs significantly from its expected rate.

Stroke or Death after CEA for Symptomatic Admissions by Region Across VQI (Jan-Dec 2020)

Rates shown are among complete cases. "*" indicates region's observed rate differs significantly from its expected rate.
CEA ASYMP: Postop LOS>1 Day

Procedures performed between January 1 and December 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>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>73</td>
<td>8867</td>
</tr>
<tr>
<td>Observed rate of LOS&gt;1 day among procedures meeting inclusion criteria</td>
<td>43.8%</td>
<td>22.7%</td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>56</td>
<td>8427</td>
</tr>
<tr>
<td>Observed rate of LOS&gt;1 day among cases with complete data</td>
<td>46.4%</td>
<td>22.7%</td>
</tr>
<tr>
<td>Expected rate of LOS&gt;1 day among cases with complete data</td>
<td>27.9%</td>
<td>NA</td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0</td>
<td>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.
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 (Jan-Dec 2020)

Rates shown are among complete cases. *** Indicates centers observed rate differs significantly from its expected rate.

Postop LOS>1 Day after CEA for Asymptomatic Admissions by Region Across VQI (Jan-Dec 2020)

Rates shown are among complete cases. *** Indicates region’s observed rate differs significantly from its expected rate.
CEA SYMP: Postop LOS>1 Day

Procedures performed between January 1 and December 31, 2020

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

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

<table>
<thead>
<tr>
<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>150</td>
<td>4592</td>
</tr>
<tr>
<td>Observed rate of LOS&gt;1 day among procedures meeting inclusion criteria</td>
<td>50%</td>
<td>42.4%</td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>131</td>
<td>4430</td>
</tr>
<tr>
<td>Observed rate of LOS&gt;1 day among cases with complete data</td>
<td>49.6%</td>
<td>42.3%</td>
</tr>
<tr>
<td>Expected rate of LOS&gt;1 day among cases with complete data</td>
<td>47%</td>
<td>NA</td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.6</td>
<td>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.
Postop LOS>1 Day after CEA for Symptomatic Admissions by Year

Rates shown are observed rates among cases meeting inclusion criteria.
Postop LOS>1 Day after CEA for Symptomatic Admissions in Your Region (Jan-Dec 2020)

Centers (centers with <10 complete cases not shown)

Rates shown are among complete cases. ** Indicates center’s observed rate differs significantly from its expected rate.

Postop LOS>1 Day after CEA for Symptomatic Admissions by Region Across VQI (Jan-Dec 2020)

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

Rates shown are among complete cases. *** Indicates region’s observed rate differs significantly from its expected rate.
**EVAR: Postop LOS>2 Days**

Procedures performed between January 1 and December 31, 2020

Includes Endovascular AAA Repair (EVAR) procedures only. Excludes any procedure with ruptured aneurysm. 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>258</td>
<td>6032</td>
<td></td>
</tr>
<tr>
<td>Observed rate of LOS&gt;2 days among procedures meeting inclusion criteria</td>
<td>15.5%</td>
<td>16.6%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>231</td>
<td>5450</td>
<td></td>
</tr>
<tr>
<td>Observed rate of LOS&gt;2 days among cases with complete data</td>
<td>16%</td>
<td>16.7%</td>
<td></td>
</tr>
<tr>
<td>Expected rate of LOS&gt;2 days among cases with complete data</td>
<td>17.7%</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.55</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.
Postop LOS>2 Days after EVAR in Your Region (Jan-Dec 2020)

Rates shown are among complete cases. "***" indicates center's observed rate differs significantly from its expected rate.

Postop LOS>2 Days after EVAR by Region Across VQI (Jan-Dec 2020)

Rates shown are among complete cases. "***" indicates region's observed rate differs significantly from its expected rate.
EVAR: Sac Diameter Reporting

Procedures performed between January 1 and December 31, 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>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>208</td>
<td>6782</td>
</tr>
<tr>
<td>Percentage with sac diameter reported between 9 and 21 months post-procedure</td>
<td>88%</td>
<td>59.3%</td>
</tr>
</tbody>
</table>
EVAR Sac Diameter Reporting in Your Region (Jan-Dec 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.

EVAR Sac Diameter Reporting by Region Across VQI (Jan-Dec 2018)

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

*** Indicates region’s rate differs significantly from the VQI rate.
National Quality Initiative – EVAR Sac Diameter Report

- Wide Variation in Compliance – VQI Mean 58.6% (22-89%)
- Little improvement since inception in 2016

“It is the obligation of the operating surgeon to stress the need for lifelong surveillance and integrate discussions about LTFU into all stages of AAA EVAR care to ensure that their patients achieve optimal outcomes.” – Salvatore Scali, MD, Professor of Surgery, University of Florida.

Barriers to Reporting

- No LTFU; patient lost to evaluation
- Patient Factors
  - No Need, “Feeling Well”
  - Unaware of importance of LTFU and imaging
  - Moved/phone disconnected
  - Lost insurance
  - Too far to travel/inconvenient parking
Moving The Needle

Other Barriers

- Dictated Patient Visit with “AAA sac unchanged” or “No endoleak or size increase”
- Imaging not available at time of visit
- Center not wanting to use Radiology report information

Discussion

Suggestions for improvement:

- Center unblinding at Regional meetings ➔ Peer competition
- Biannual Physician Report sent with PRIMPROCID information
- GC Update Report from each Regional Medical Director to maintain awareness
- “Best Practice” Webinar made available for low performing centers
- Make Sac Diameter size notation at every patient encounter
EVAR: SVS Sac Size Guideline

Procedures performed between January 1 and December 31, 2020

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

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

<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>242</td>
<td>5357</td>
<td></td>
</tr>
<tr>
<td>Percentage meeting SVS sac size guideline</td>
<td>79.8%</td>
<td>74.2%</td>
<td></td>
</tr>
</tbody>
</table>
EVAR Sac Size Guideline in Your Region (Jan-Dec 2020)

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

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

EVAR Sac Size Guideline by Region Across VQI (Jan-Dec 2020)

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

***indicates region's rate differs significantly from the VQI rate.
OAAA: In-Hospital Mortality

Procedures performed between January 1 and December 31, 2020
Includes Open AAA (OAAA) procedures only. Excludes any patient with a ruptured aneurysm.

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

<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>107</td>
<td>1044</td>
<td></td>
</tr>
<tr>
<td>Observed rate of In-Hospital Mortality among procedures meeting inclusion criteria</td>
<td>3.7%</td>
<td>4.6%</td>
<td></td>
</tr>
<tr>
<td>Number of procedures with complete data*</td>
<td>95</td>
<td>977</td>
<td></td>
</tr>
<tr>
<td>Observed rate of In-Hospital Mortality among cases with complete data</td>
<td>1.1%</td>
<td>4.4%</td>
<td></td>
</tr>
<tr>
<td>Expected rate of In-Hospital Mortality among cases with complete data</td>
<td>3.7%</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>P-value for comparison of observed and expected rates</td>
<td>0.27</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.
In-Hospital Death after OAAA by Year

Rates shown are observed rates among cases meeting inclusion criteria.
In-Hospital Death after OAAA in Your Region (Jan-Dec 2020)

Centers (centers with <10 complete cases not shown)
Rates shown are among complete cases. "***" indicates center's observed rate differs significantly from its expected rate.

In-Hospital Death after OAAA by Region Across VQI (Jan-Dec 2020)
Regions (regions with <3 centers with at least 10 complete cases not shown)
Rates shown are among complete cases. "***" indicates region's observed rate differs significantly from its expected rate.
OAAA: SVS Cell-Saver Guideline

Procedures performed between January 1 and December 31, 2020

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

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

<table>
<thead>
<tr>
<th>Number of OAAA procedures meeting inclusion criteria</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>113</td>
<td>1063</td>
<td></td>
</tr>
<tr>
<td>Percentage meeting SVS cell-saver guideline</td>
<td>80.5%</td>
<td>92.5%</td>
<td></td>
</tr>
</tbody>
</table>
OAAA Cell-Saver Guideline by Year

- Your Center
- Your Region
- VQI Overall
OAAA: SVS Iliac Inflow Guideline

Procedures performed between January 1 and December 31, 2020

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

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

<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>98</td>
<td>1176</td>
</tr>
<tr>
<td>Percentage meeting SVS iliac inflow guideline</td>
<td>99%</td>
<td></td>
<td>98.1%</td>
</tr>
</tbody>
</table>
OAAA Iliac Inflow Guideline in Your Region (Jan-Dec 2020)

Centers (centers with <10 cases not shown)

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

OAAA Iliac Inflow Guideline by Region Across VQI (Jan-Dec 2020)

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

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

Procedures performed between January 1 and December 31, 2020

Includes Peripheral Vascular Intervention (PVI) procedures for mild, moderate, or severe 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>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>198</td>
<td>12455</td>
</tr>
<tr>
<td>Percentage with ABI/toe pressure assessment</td>
<td>81.8%</td>
<td>74.5%</td>
</tr>
</tbody>
</table>
ABI/Toe Pressure Assessment before PVI for Claudication in Your Region (Jan-Dec 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.

ABI/Toe Pressure Assessment before PVI for Claudication by Region Across VQI (Jan-Dec 2020)

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

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

Procedures performed between January 1 and December 31, 2020

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

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

<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>219</td>
<td>5212</td>
<td></td>
</tr>
<tr>
<td>Percentage with major complications</td>
<td>4.1%</td>
<td>4.6%</td>
<td></td>
</tr>
</tbody>
</table>
Major Complications after INFRA for CLTI in Your Region (Jan-Dec 2020)

Centers (centers with <10 cases not shown)

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

Major Complications after INFRA for CLTI by Region Across VQI (Jan-Dec 2020)

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

*** Indicates region's rate differs significantly from the VQI rate.
SUPRA CLTI: Major Complications

Procedures performed between January 1 and December 31, 2020

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

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

<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 meeting inclusion criteria</td>
<td></td>
<td>85</td>
<td>1177</td>
</tr>
<tr>
<td>Percentage with major complications</td>
<td></td>
<td>8.2%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>
Major Complications after SUPRA for CLTI by Year

- Your Center
- Your Region
- VQI Overall
Major Complications after SUPRA for CLTI in Your Region (Jan-Dec 2020)

Centers (centers with <10 cases not shown)

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

Major Complications after SUPRA for CLTI by Region Across VQI (Jan-Dec 2020)

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

**** Indicates region’s rate differs significantly from the VQI rate.
HDA: Primary AVF vs. Graft

Procedures performed between January 1 and December 31, 2020

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

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

<table>
<thead>
<tr>
<th></th>
<th>Your Center</th>
<th>Your Region</th>
<th>VQI Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of HDA procedures meeting inclusion criteria</td>
<td></td>
<td>145</td>
<td>5069</td>
</tr>
<tr>
<td>Percentage with primary AVF</td>
<td></td>
<td>93.8%</td>
<td>81.7%</td>
</tr>
</tbody>
</table>
Primary AVF Access in Your Region (Jan-Dec 2020)

Centers (centers with <10 cases not shown)

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

Primary AVF Access by Region Across VQI (Jan-Dec 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

• Graham Roche-Nagle, MD
  – EVAR SAC Diameter Reporting
  – ASA/Statin rates
National VQI Update:
Carrie Bosela
Senior Director Clinical Operations, SVS PSO
Number of Participating Centers

Location of VQI Participating Centers

793 VQI Centers
792 centers in North America
1 center in Singapore
18 Regional Quality Groups
<table>
<thead>
<tr>
<th>Total Procedures Captured (as of 4/1/2021)</th>
<th>811,165</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peripheral Vascular Intervention</td>
<td>268,305</td>
</tr>
<tr>
<td>Carotid Endarterectomy</td>
<td>155,339</td>
</tr>
<tr>
<td>Infra-Inguinal Bypass</td>
<td>67,658</td>
</tr>
<tr>
<td>Endovascular AAA Repair</td>
<td>63,014</td>
</tr>
<tr>
<td>Hemodialysis Access</td>
<td>62,927</td>
</tr>
<tr>
<td>Carotid Artery Stent</td>
<td>54,025</td>
</tr>
<tr>
<td>Varicose Vein</td>
<td>45,589</td>
</tr>
<tr>
<td>Supra-Inguinal Bypass</td>
<td>21,818</td>
</tr>
<tr>
<td>Thoracic and Complex EVAR</td>
<td>20,978</td>
</tr>
<tr>
<td>Lower Extremity Amputations</td>
<td>20,834</td>
</tr>
<tr>
<td>IVC Filter</td>
<td>15,710</td>
</tr>
<tr>
<td>Open AAA Repair</td>
<td>14,883</td>
</tr>
<tr>
<td>Vascular Medicine Consult</td>
<td>56</td>
</tr>
<tr>
<td>Venous Stent</td>
<td>29</td>
</tr>
</tbody>
</table>

Total Procedure Volume tab reflects net procedures added to the registry for the month.
Trainee engagement:

- VQI wants to help medical students, residents and fellows learn about quality improvement
Trainee engagement:

- Plans –
  - Invite students and trainees to regional and national meetings
  - Engage students and trainees in quality improvement projects
  - Participate in presentations and publications
  - VQI intern program (in development)
Trainee engagement:

- What are your ideas?
Update on PSO Diversity Committee

VQI Members call for volunteers early 2021:

• 19 Applicants
• VQI Representatives
  – Dr. Leila Mureebe – Chair
  – Dr. Carla Moreiro – Vice-Chair
  – Dr. Samantha Minc
  – Dr. Patricia Fernandez
  – Dr. Mina Boutros
  – Dr. Rafael Malgor
Update on PSO Diversity Committee

• Awaiting appointments from
  ➢ SVS DEI Committee
  ➢ AVF
  ➢ ACC

• Broad representation
  ➢ Years in practice
  ➢ Region
  ➢ Gender
  ➢ Race
FDA Safety Notifications

- As a Patient Safety Organization, we feel compelled to share Safety Notifications with VQI Members
- FDA will contact the SVS PSO with Safety Notifications it wants us to communicate
- Safety Notifications will appear in both the PSO and SVS newsletters
- All Safety Notifications are posted to the VQI and SVS Websites

https://www.vqi.org/resources/fda-communication/
The 2021 VQI Annual Meeting has been moved to August!

Important Dates and Times for the 2021 VQI Annual Meeting at VAM

August 17, 2021 12PM – 6:30PM* Pacific Time
August 18, 2021 8AM – 5PM Pacific Time

*Poster Presentation and Networking Reception – Tuesday, August 17th at 5:00PM to 6:30PM

We are hopeful that we will be able to have an in-person meeting at the San Diego Convention Center. In the event we are unable to meet live, we will transition to on-line presentation.
Partners and Endorsing Organizations

SVS | VQI

In collaboration with NCDR®

American Venous Forum

Society for Vascular Medicine

Access Excellence
ACC and SVS Join Forces

Now Is The Time

- ACC and SVS began 2021 with a united vascular registry - creating a single resource focused on improving care and outcomes of patients with vascular disease.

- ACC PVI registry participants who have not yet joined the SVS VQI, may contact the SVS VQI account team by emailing vqi@m2s.com, or by calling 603-298-6717, to begin enrollment.
Ongoing Collaboration

ACC NCDR will have representation on all VQI Councils and Committees.
COVID-19 Update

- COVID-19 Variable insertion into registries (Sept. 2020)
- Two JVS Publications (JVS & JVSVL) on registry volumes
- AHRQ PSO Presentation on VQI Response
- International Registry submission for June issue *Seminars in Vascular Surgery*
- Initial Outcomes Review of COVID-19 effect in registries
- Collaboration with Vascular Surgery COVID-19 Collaborative (VASCC) on LTFU in participating centers
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 70% follow up! Not too late to join the Pilot!!**
**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:

• New On-line Follow-up reports
  – EVAR Released - Jan 2021
  – CEA/CAS/PVI/TEVAR – To Be Released in 2021

• New Dashboard and Regional Report Drilldown

• Suggestions for “other” reports
CME/CE CREDIT FOR REGIONAL MEETINGS

SPRING 2021
Des Moines University is the continuing education provider for this activity.

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

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

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

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

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

If you do not complete and submit the online forms within 7 days, continuing education credit cannot be awarded.
REMEMBER TO PSO:

- **P**UT your FULL NAME in RingCentral to get credit for attendance and CME/CE credit (no exceptions will be made)
- **S**END an email to ljohnson@svspso.org with names of group members that are sharing 1 device
- **O**FFICALLY apply for CME/CE credit by clicking this link: https://dmu.co1.qualtrics.com/jfe/form/SV_cV16HnPtLYPJfKu

You only have 7 days to complete forms for CME/CE Credit.
NO EMAIL WILL BE SENT AS A REMINDER OR WITH THE CME/CE LINK
Quality Improvement Update

Spring 2021
Quality Improvement Resources:

- 2021 Quarterly Webinars
  - March 2021
  - June 2021
  - September 2021
  - November/December 2021
    - Participation Award Information
- The VQI News
  - Provides updates on regulatory issues, technical updates, and crossover news from the SVS and SVN
- VQI Quality Improvement Newsletter
  - Focusing on QI processes, tools, and definitions
- VQI.org Members only pages
Charters

- 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
National QI project details

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

• Visit the VQI Members Only Website for sample charters, webinars, and presentations on VQI Quality Improvement Projects. www.vqi.org
2020 Participation Award Changes
Participation Award 2020 Update

MAJOR CHANGE

• Long Term Follow-Up 2018 cases
  – COVID-19 affect
  – Remove LFTU from the 2020 Participation Award – BUT...
  – Acknowledge centers that maintained, improved LTFU with a certificate
    • Centers in top 25% for 2018 LTFU rates
    • Statistically significant increase in LTFU rate from 2017 to 2018
Scoring 2020 (During COVID-19)

- Three categories scored, each on a 0-6 point scale:
  - LTFU – REMOVED. Separate recognition.
  - Meeting attendance (weighted 50%)
  - QI project involvement (weighted 40%)
  - Number of registry subscriptions (weighted 10%)

- The final score is calculated as follows:
  Total points = 5 x Attendance score + 4 x QIP score + 1 x Registry score
Participation Awards Program

- 2020 Participation Award results to be announced soon.
- 3 Star recipients are presented at the in-person Annual VQI meeting
- Participation Awards began in 2016 to encourage active participation in the registries program and recognize the importance of participation.
- Participating centers can earn up to three stars based on actions that lead to better patient care – more details available at https://www.vqi.org/quality-improvement/participation-awards/
Covenant Health-Grey Nuns Hospital

Toronto General Hospital
LTFU Recognition

- Toronto General Hospital
- Covenant Health-Grey Nuns Hospital
Arterial Quality Council:
Mary MacDonald, MD
AQC Update:

Chair:  Randy DeMartino, MD (Mayo)
Vice Chair:  Jessica Simons, MD (UMASS)
Kelly Byrnes & Marguerite Marlow,
Vascular Ultrasound representatives
ACC to make 2 appointments mid 2021
AQC Update:

### Preliminary Development priorities for 2021:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Infra/Supra - Jess Simons</td>
</tr>
<tr>
<td>2.</td>
<td>OAAA - Rumi Faizer</td>
</tr>
<tr>
<td>3.</td>
<td>Amputation - Ahmed Abou-Zamzam</td>
</tr>
</tbody>
</table>

Always looking for Volunteers to Join Registry Committees! Contact Carrie Bosela [C.Bosela@svspso.org](mailto:C.Bosela@svspso.org) if interested!!
AQC Update:

- **Clinical Appropriateness Performance Indicators (CAPI reports)**
  - Aligning with SVS Guidelines
- **Registry Specific Quality Improvement Initiatives**
- **PAD PRO’s**
- **COVID Interest Group and Response (CIGAR)**
  - VASCC Collaboration
The Society for Vascular Surgery Patient Safety Organization® (SVS PSO) and the Society for Vascular Medicine (SVM), in collaboration with the American Heart Association® (AHA), are excited to introduce the SVS Vascular Quality Initiative’s Vascular Medicine Consult (VMC) Registry.

This Registry will target the management of NEW Outpatient Consults who are being treated medically for:

**Atherosclerotic carotid artery occlusive disease**  
**Abdominal Aortic aneurysm**  
**Peripheral lower extremity arterial disease due to atherosclerosis or true aneurysm**

The Vascular Medicine Consult Registry provides a unique opportunity to look at the natural history of a disease and what factors impact the progression. The emphasis of this Registry will be medication details and dosages, risk factor and lifestyle modifications such as exercise and diet, and non-operative treatments and counseling. The value of this Registry centers on the comparative effectiveness of surgery vs. medically managing these vascular diseases.

Learn more: [The Vascular Quality Initiative | Vascular Medicine Consult Registry (New) (vqi.org)](https://vqi.org)
Research Advisory Council:

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

2. Submit proposal online:
http://abstracts123.com/svs1/meetinglogin
VQI Projects 2020-2021
Local Project

• VQI Data used to identify CFA lesions treated by endovascular means
• VQI dataset allowed quick assessment of local practice and project feasibility
• Developed better understanding of CFA stenting outcomes
Completed International Project

- Review of North American practice patterns of Paclitaxel use before and after the Katsanos et al. metanalysis highlighting concerns regarding mortality risk from Paclitaxel
- Following publication of data with concerns of mortality associated with paclitaxel device use in 2018, a rapid reduction in overall paclitaxel device use was observed in 2019.
- Paclitaxel devices were used for 8852 arteries in 2017, 10691 in 2018, and 6732 in 2019, which was significantly reduced

Risk of Death Following Application of Paclitaxel-Coated Balloons and Stents in the Femoropopliteal Artery of the Leg: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

Konstantinos Katsanos, MD, PhD, MSc; EIR1; Stavros Spiliopoulos, MD, PhD2; Panagiotis Kitrou, MD, PhD1; Miltiadis Koukidis, MD, PhD2; Dimitrios Karnabalis, MD, PhD1

UHN
University of Toronto
Sinai Health System
University Health Network
Women’s College Hospital

Toronto General
Toronto Western
Princess Margaret
Toronto Rehabilitation Institute
Ongoing VQI Evaluation

- VQI data to understand practice patterns of antegrade closure device use
- Risk factors for success in antegrade vs retrograde closure devices
- Subgroup analysis of SFA access site closure device data
Optimizing pre-operative haemoglobin levels to reduce post-operative complications and mortality in Vascular Surgery

Sneha Raju, Naomi Eisenberg, Timothy CY Chan, Alexander Olson, Roche-Nagle G
Aims

• Is pre-operative hemoglobin predictive of a composite outcome of 30-day all-cause mortality and post-operative cardiac complications (MI, CHF, dysrhythmias)?

• Is there a pre-operative hemoglobin threshold that protects against immediate post-operative mortality and/or cardiac complications?
Methods – RAC Approved

Focus on major arterial procedures
- Infrainguinal: 54,828
- AAA: 12,635
- Suprainguinal: 17,635
Artificial Intelligence and Machine Learning

Many models will be tested with the dataset to identify the model that predicts mortality the most accurately. Collaboration with Dr. Timothy Chan (UofT Engineering).

- random forest
- support vector machine
- extreme gradient boost
- multi-layer perceptron

Random Forest
Support Vector Machine
Multi-Layer Perceptron
Progress to date

- Data received from VQI
- Models being developed


8. Predictors of Underutilization of Medical Therapy in Patients Undergoing Endovascular Revascularization for Peripheral Artery Disease. JACC Cardiovasc Interv, 13(24), 2911-2918. [https://doi.org/10.1016/j.jcin.2020.08.036](https://doi.org/10.1016/j.jcin.2020.08.036)


• Dr. Mureebe discussed the formation of the SVS PSO’s new Diversity, Equity and Inclusion Committee
• Jim and Carrie presented the draft agenda for the VQI Annual Meeting and solicited ideas for additional programing
• Drs. Lemmon and Jorgensen presented the GC a proposal on a new PSO Trainee Scholarship Program
• Dr. Weaver provided an update on progress against strategic priorities, including an update on our collaboration with ACC
Meeting Evaluation/Roundtable

- What did you like about this meeting?
- What can we do better?
- Next meeting location?
Meeting Attendance Credit

**REMEMBER TO PSO:**

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- **S**end an email to [ljohnson@svspso.org](mailto:ljohnson@svspso.org) with names of group members that are sharing 1 device
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You only have **7 days** to complete forms for CME/CE Credit.

NO EMAIL WILL BE SENT AS A REMINDER OR WITH THE CME/CE LINK
Data Manager Meeting: 5:30-6:30 pm
Technology Released in Q4 2020

- TEVAR Revision to align with SVS/STS guidelines
  - Released on **9/30/2020**
  - Modified fields on the TEVAR form in order to become aligned with updated SVS/STS guidelines described in the article “Society for Vascular Surgery (SVS) and Society of Thoracic Surgeons (STS) reporting standards for type B aortic dissections”.
  - The overall intent of the SVS/STS is to generate more cohesive classification guidelines for both societies to follow in order to extract more granular information which would result in better reporting and research on type b aortic dissections.
  - The definition prior to this change was Type A = Zones 0-1 and Type B = Zones 2-5. The new definition is Type A = Zone 0 and Type B = Zone 1 and beyond as shown in the image to the right.
CVQI Regional Data Managers’ meeting

Saturday, April 17, 2021
1730 - 1830h EDT
Virtual meeting via Ring Central.
Agenda

- Welcome and introductions  Everyone  5 minutes
- Welcome Carrie Bosela SVS-PSO
- Review of last Regional DM minutes  Naomi  15 minutes
  - modified Rankin Scale
  - PAD Patient reported outcomes (fall 2021)
  - VQI annual meeting (hopefully live)
- Meeting frequency
- Open forum
• Six-point disability scale
• Most widely used outcome measure in stroke clinical trials
• mRS comprises grades of stroke severity and was intended as a descriptive categorization of functional recovery.
  – Validity: Has been confirmed in multiple studies. Studies show correlation between lesion volumes and mRS. Interrater reliability ranges from moderate to nearly perfect due to the assessment is subjective.
  – Strengths: Short and easy to score.
  – Weaknesses: Some subjectivity in the scoring can affect the score.
mRS Scale

<table>
<thead>
<tr>
<th>0</th>
<th>No symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No significant disability. Able to carry out all usual activities, despite some symptoms.</td>
</tr>
<tr>
<td>2</td>
<td>Slight disability. Able to look after own affairs without assistance, but unable to carry out all previous activities.</td>
</tr>
<tr>
<td>3</td>
<td>Moderate disability. Requires some help, but able to walk unassisted.</td>
</tr>
<tr>
<td>4</td>
<td>Moderate severe disability. Unable to attend to own bodily needs without assistance, and unable to walk unassisted.</td>
</tr>
<tr>
<td>5</td>
<td>Severe disability. Requires constant nursing care and attention, bedridden, incontinent.</td>
</tr>
<tr>
<td>6</td>
<td>Dead</td>
</tr>
</tbody>
</table>
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Moving The Needle

EVAR Sac Diameter Reporting by Region Across VQI (Jan-Dec 2018)

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

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

- Embedded drill-down and data feedback

VQI Case Appendix

Winter 2020

About the Appendix

The VQI Case Appendix provides embedded data feedback and drill-down for each dashboard report. Using the appendix, centers can easily identify and download cases that were reviewed or excluded from each report, as well as cases with each noted outcome.

The interactive tables below give your center’s cases (both reviewed and excluded) entered for the procedure timeframe of each report (as of 11/30/2020). Each row references a particular case and each case is referenced by a PRIMPROCID, a unique case identifier assigned to each procedure to protect patient identity. Additional data elements are included for each case to further facilitate quality improvement efforts, including procedure and patient characteristics, length-of-stay (LOS) data, discharge medication data, complication data, and other data elements related to dashboard report construction.

To download a .csv or .xlsx file containing your center’s data, click on either the “CSV” or “Excel” buttons located above each interactive table.
Dashboard Highlights

- Embedded drill-down and data feedback

<table>
<thead>
<tr>
<th>INFRA</th>
<th>INFRA CLAUD (CLI) Cases Reviewed: 9 (60)</th>
<th>INFRA Cases Excluded: 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFRA Cases: 80</td>
<td># of INFRA cases in procedure timeframe</td>
<td># of INFRA cases included in each INFRA dashboard</td>
</tr>
<tr>
<td># of INFRA cases not included in either INFRA dashboard (note: 5+9+66=80)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Change the # of rows for display (10, 25, 50, or 200)
- Binary indicators for dashboard inclusion (1=yes, 0=no)
- Use scroll bar to see additional variables
- Download .csv or .xlsx file of your data
- Returns every row containing at least 1 cell satisfying the value entered in the search bar (not incredibly useful)
- Sort on any column by clicking the double arrows
- Click to page thru your cases

<table>
<thead>
<tr>
<th>PRIMPROCID</th>
<th>Indication Right</th>
<th>Indication Left</th>
<th>Side Treated</th>
<th>Postop LOS</th>
<th>Total LOS</th>
<th>Discharge Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>Not Treated</td>
<td>Tissue Loss</td>
<td>L</td>
<td>4</td>
<td>7 Home</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>Not Treated</td>
<td>Tissue Loss</td>
<td>L</td>
<td>2</td>
<td>3 Home</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>Not Treated</td>
<td>Claudication</td>
<td>L</td>
<td>2</td>
<td>2 Home</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>Not Treated</td>
<td>Tissue Loss</td>
<td>R</td>
<td>13</td>
<td>13 Rehab Unit</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>Not Treated</td>
<td>Claudication</td>
<td>L</td>
<td>2</td>
<td>2 Home</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>Not Treated</td>
<td>Acute Ischemia</td>
<td>L</td>
<td>5</td>
<td>7 Home</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>Rest Pain</td>
<td>Not Treated</td>
<td>R</td>
<td>2</td>
<td>2 Rehab Unit</td>
</tr>
</tbody>
</table>
VQI Technology Updates
Technology Released in Q3 2020

- Revised warning COVID-19 message for Follow-up Mandatory Variable
  - 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 will display 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 Help Text Helpful?” feature in help text box
  - 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 will display in the bottom right corner of the help text box:
Technology Released in Q4 2020

- Across-registry revision to add Covid-19 variables and optional Patient Email
  - Released on 8/29/2020 (SUPRA, INFRA, HDA, VVR, VSR & PVI)
  - Released on 9/23/2020 (AMP, IVC, CAS, EVAR & TEVAR)
- Added 4 procedure variables and 1 30-day and LTF follow-up variable to VQI registries to collect information about COVID-19.
- Added an optional Patient Email variable in the procedure form to support the upcoming PRO project.
- The procedure fields are added to the existing Procedure form tab and follow-up field to the existing 30-day and long-term Follow-up tabs. All fields are consistent across registries, and are added for all sites enrolled in the registry.
Technology Released in Q4 2020

- TEVAR Revision to align with SVS/STS guidelines
  - Released on 9/30/2020
  - Modified fields on the TEVAR form in order to become aligned with updated SVS/STS guidelines described in the article “Society for Vascular Surgery (SVS) and Society of Thoracic Surgeons (STS) reporting standards for type B aortic dissections”.
  - The overall intent of the SVS/STS is to generate more cohesive classification guidelines for both societies to follow in order to extract more granular information which would result in better reporting and research on type b aortic dissections.
  - The definition prior to this change was Type A = Zones 0-1 and Type B = Zones 2-5. The new definition is Type A = Zone 0 and Type B = Zone 1 and beyond as shown in the image to the right.
Technology Released in Q4 2020

- TEVAR Revision to align with SVS/STS guidelines (Cont’d)
  - Procedure Form
    - Relation to Prior Dissection: The existing “Relation to Prior Dissection” field received updated help text that identifies the new dissection zones and includes a new image within the help text pop-up.
    - Entry Flow: A new “Entry Flow” field was added above False Lumen Rx.
    - Intestinal Ischemia and Unintentional Septal Rupture: Intestinal Ischemia and Unintentional Septal Rupture received additions to help text.
  - Follow-up Form
    - Entry Flow: The new “Entry Flow” field added to the Procedure was also added to the Follow-up, dependent on the Pathology field (TEVAR_PATH) being Dissection (2).
    - Current Endoleak?: The dependency for this field changed to display when Pathology is Aneurysm in addition to Pathology being Dissection or Aneurysm from dissection.
    - Intestinal Ischemia: Similar to the Procedure, this field received additional help text.
**Technology Released in Q4 2020**

- Varicose Vein Registry (VVR) & Venous Stent Registry (VSR) revision for New CEAP Clinical Classification
  - Released on **11/11/2020**
  - CEAP classification used for classifying venous disorders has been updated to align with the current understanding of chronic venous disease (CVD).
  - New selections of C2r, C4c, and C6r were added to the current list of CEAP classifications.

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**Table III. The 2020 revision of CEAP: Summary of clinical (C) classifications**

<table>
<thead>
<tr>
<th>C class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C_0</td>
<td>No visible or palpable signs of venous disease</td>
</tr>
<tr>
<td>C_1</td>
<td>Telangiectasias or reticular veins</td>
</tr>
<tr>
<td>C_2</td>
<td>Varicose veins</td>
</tr>
<tr>
<td>C_2r</td>
<td>Recurrent varicose veins</td>
</tr>
<tr>
<td>C_3</td>
<td>Edema</td>
</tr>
<tr>
<td>C_4</td>
<td>Changes in skin and subcutaneous tissue secondary to CVD</td>
</tr>
<tr>
<td>C_4c</td>
<td>Pigmentation or eczema</td>
</tr>
<tr>
<td>C_4d</td>
<td>Lipodermatosclerosis or atrophic blanche</td>
</tr>
<tr>
<td>C_4w</td>
<td>Corona phlebectica</td>
</tr>
<tr>
<td>C_5</td>
<td>Healed</td>
</tr>
<tr>
<td>C_6</td>
<td>Active venous ulcer</td>
</tr>
<tr>
<td>C_6r</td>
<td>Recurrent active venous ulcer</td>
</tr>
</tbody>
</table>
Technology Released in Q4 2020

- Vascular Medicine Consult (VMC) registry revision to add new drug category and update CAD
  - Released on 11/19/2020
  - Added a new drug category called Hemorheologic Agent (categorical field) that contains Cilostazol, Pentoxifylline and Other as Hemorheologic Types. These fields were added to Demographics, Treatment and Follow-up tabs. Dosing and Dosing Other as well as Frequency and Frequency Other will be collected for both Cilostazol and Pentoxifylline.
  - The following existing Cilostazol fields are retired from the form:
    - PRETX_CILOSTAZOL
    - TX_CILOSTAZOL
    - LTF_CILOSTAZOL
  - Added a select option, CAD asymptomatic, to the Procedure field “CAD Symptoms”.
Projects in Progress

- VQI Patient Reported Outcome (PRO) collection for PVI
- Add opioid variables to INFRA
- Long-term follow-up reports
- HDA 2021 medium revision
- VMC 2021 small revision
- INFRA 2021 major revision
- SUPRA 2021 major revision
- OPEN 2021 major revision
PATHWAYS Support
PATHWAYS Support Projects

Claims Validation
The 2019 Claims Validation process was launched in July 2020.
• 50% of Centers have completed validation or are in progress.
• Please reach out to PATHWAYS Support if you were notified and haven’t started and are unclear with the process.
• PATHWAYS Support is here to help you!
Plans to launch 2020 Claims Validation are currently underway...Stay tuned!

PATHWAYS Educational Webinars
• Reporting & Analytics webinar series (2 sessions) were held in November & December.
  • Visit the Resources tab in PATHWAYS to access the presentations and recordings.
• EVAR FU Aggregate Report – Excited to expand this report to additional registries in the future!
PATHWAYS Support

PATHWAYS Communication
We have heard feedback that due to firewall and spam filter configurations at your centers, you may not be receiving mass emails from M2S. We are excited to help our users keep up to date with new release announcements.

- A new “Release Notes” button has been added to the “Support” tab in the upper left corner to provide you with historical release announcements to help you search for updates.
Importance of Complete Data Sets

- O/E calculations are based on complete data.
- Incomplete procedures may not be counted
  - Affects O/E ratio regarding death, LOS or complications
    - (slide 65) from meeting
- Challenges to completing the data set
Open Forum!
Thank you!!

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