New Developments in the SVS VQI:
How they benefit patients and vascular surgeons

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FINANCIAL DISCLOSURE

Nothing to Disclose

Outline

• VQI Update
• National Quality Improvement Projects
  – A success story
  – A challenge
• Improved access to carotid stenting through VQI

MOC Questions

When comparing data from registries and randomized clinical trials, which of the following statements is true?

- Data from randomized clinical trials are more generalizable to the “average” patient than registry data.
- Data from registries are more generalizable to the “average” patient than registry data.
- Data from randomized clinical trials are more likely to be erroneous than registry data.
- Data from randomized clinical trials are more likely to be subject to selection bias than registry data.

Correct Answer: B. Because they typically have broader inclusion criteria, registries allow a wider range of patients to be represented, which is more reflective of the general population. While randomized clinical trials may have more rigorous inclusion criteria, they may not be as representative of the general population.

Which of the following statements about registry complexity (level of detail) is true?

- As registry data granularity increases, the burden of data entry decreases because of economies of scale.
- As registry granularity decreases, the ability to answer clinical questions increases.
- As registry granularity increases, the cost of participation increases.
- As registry granularity decreases, the likelihood of erroneous data entry increases.

Correct Answer: C. Collection of more granular data requires more time and effort to locate the data and enter it into the registry, thus increasing the cost of participation. However, more granular data allows for more detailed clinical questions of interest such as processes of care issues.

VQI Update

Number of Participating Centers: 444 Centers, 46 States + Canada

Location of 100 Participating Centers: 444 Centers, 46 States + Canada

Total Procedures Captured (End 12/31/2020)

- Femoral/Popliteal Occlusion 172,215
- Carotid/Aortic Stent 153,515
- Intra-Aortic Balloon Pump 41,018
- Endovascular AAA Repair 36,103
- Hybrid Access 34,925
- Carotid Artery Stent 13,739
- Vascular Access 10,969
- Super Erector Repair 11,975
- Open AAA Repair 10,164
- Thoracic and Complex EVAR 9,895
- Lower Extremity Arteriosclerosis 8,945
- OAB Repair 6,728
A sober message for quality registries

Mere participation in a quality registry is insufficient to drive improved performance

Etzioni, JAMA, 2015

Follow-up imaging after vascular interventions

(VQI v non-VQI hospitals)

Baseline Year 1 Year 2 Year 3

EVAR

0 25 50 75 100

Non-VQI

VQI

Baseline Year 1 Year 2 Year 3

LEB/PVI

ALL

0 25 50 75 100

Baseline Year 1 Year 2 Year 3

EVAR

Non-VQI

VQI

Broder, JAMA Surg, 2017

What is the value of registry participation?

Registry participation is NECESSARY but NOT SUFFICIENT to drive quality improvement.

Quality Improvement Success Story

Antiplatelet/statins prescribed at discharge following arterial intervention

Survival after discharge in VQI


Quality Improvement Challenge

Follow-up Imaging After EVAR

EVAR % Imaging Rate by VQI 2011-2014

0 25 50 75 100

Baseline Year 1 Year 2 Year 3

EVAR % Imaging Rate in non-VQI 2011-2014

0 25 50 75 100

Baseline Year 1 Year 2 Year 3

Trans-Carotid Artery Revascularization Project

• Collaboration with CMS to reimburse for TCAR in high-risk symptomatic or asymptomatic patients if entered into VQI CAS Registry + 1 year follow-up
• TCAR outcomes compared with CEA outcomes entered in VQI during same time interval
• Goal is to generate real-world data for future decisions about coverage of TCAR as distinct from trans-femoral CAS
• Enter TCAR case into CAS Registry, submit Medicare claim using NCT 02850588

Project started November 2016
• Total Patients with TCAR in the New CAS registry: 538
• LTF records with TCAR/Silk Road: ??

VQI Continues to Benefit...

Patients through ongoing QI projects that improve patient outcomes including survival as well as reducing device-related complications

Surgeons through opportunities to participate in industry-sponsored studies that can enhance revenue

Thank You!