Current Status, Advantages and Limitations of the SVS VQI

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What is the VQI?

• The Vascular Quality Initiative® is designed to improve the quality, safety, effectiveness and cost of vascular health care by collecting and exchanging information.
• Key components
  – AHRQ-listed Patient Safety Organization
  – Registry using M2S cloud-based data collection and reporting system
  – Distributed network of regional quality groups
• Can serve as the platform for internal QI efforts.
• See more @ www.vqi.org

Relative value of registry data

Levels of Clinical Evidence

- RCT's; meta-analysis of RCT's
- Prospective Comparative Study
- Case-control study; Retrospective Cohort Study
- Case Series
- Expert Opinion; Case Report; Personal Observation

Participants

510 VQI Centers
509 centers in North America
1 center in Singapore

Procedures registered

<table>
<thead>
<tr>
<th>Total Procedures Captured as of 12/31/2018</th>
<th>529,122</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peripheral Vascular Intervention</td>
<td>169,307</td>
</tr>
<tr>
<td>Carotid Endarterectomy</td>
<td>510,122</td>
</tr>
<tr>
<td>Endovascular Iliac/Infrarrenal</td>
<td>46,500</td>
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<tr>
<td>Endovascular AAA Repair</td>
<td>46,394</td>
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<tr>
<td>Hernia Repair</td>
<td>43,724</td>
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<td>Carotid Artery Stent</td>
<td>22,886</td>
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<tr>
<td>Valvular Repair</td>
<td>20,490</td>
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<tr>
<td>Vascular Rump</td>
<td>16,974</td>
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<tr>
<td>Thoracic and Cervical VMA</td>
<td>12,934</td>
</tr>
<tr>
<td>Lower Extremity Amputations</td>
<td>12,408</td>
</tr>
<tr>
<td>Open AAA Repair</td>
<td>11,949</td>
</tr>
<tr>
<td>IAC Carot</td>
<td>11,606</td>
</tr>
</tbody>
</table>
Regional groups

Advantages

- Large broadly representative collection of real-world cases
- Recognition of quality signal for even low-frequency events
- Benchmarking of individual performance against national standards
- Collegial exchange of best practices in context of robust data
- Rich resource for research
  - >250 projects using national dataset approved
  - >150 publications using VQI data listed in PubMed
- Strong platform for new regulatory framework and participation in clinical research
  - FDA has embraced use of "real-world evidence" to make some regulatory decisions
  - Post-market surveillance
    - TEVAR for Type B aortic dissection
    - TLR

Limitations

- Unavoidable Selection Bias (affects all "real-world evidence")
- Cost
  - Subscription fee very reasonable compared to NSQIP or STS
  - Main cost is for labor related to data entry
  - Some strategies to reduce cost of participation
    - Post-market surveillance program (>51 M paid to sites)
    - Data abstraction service (~$ 40/case)
    - Automated data entry from EHR to VQI

New directions

- SVS Quality Initiatives
  - 55 Individual Center QI projects
  - National initiatives (Statin/ASA @ discharge, EVAR imaging f/u)
  - Others: LOS after CEA,EVAR; smoking cessation; SSI
- SVS Guideline Compliance

Center compliance with AAA size threshold

Summary

Advantages

- Benchmarking of clinical outcomes, guideline compliance
- Platform for local QI activity
- Participation in clinical research

Disadvantage

- Cost
Thank You